



The Barclays Global MA Index

John Hancock is pleased to offer Barclays Global MA Indexed Account options — providing diversification across asset classes and geographic regions and allocating among the components with managed volatility and daily risk control. More specifically, the Barclays Global MA Index is based on a diversified portfolio of **global equity, commodities and fixed income components, while targeting a 7% volatility.**

The Index has 12 components to provide diversification across asset classes and geographical regions

Equities**

Barclays US Tracker ER Index (BXIIUSER)

Barclays US Tech Tracker ER Index (BXIITTER)

Barclays Europe Tracker USD ER Index (BXIITUE)*

Barclays GERMANY Tracker USD ER Index (BXIIDEUE)*

Barclays Japan Tracker USD Index (BXIJTUE)*

Barclays MSCI Emerging Market Tracker ER Index (BXIIMEER)

Fixed income

Barclays US 5yr Treasury Futures Index (BXIIUS05)

Barclays US 10yr Note Futures Index (BXIIUS10)

Barclays Euro-Bobl Alt Roll Futures in USD (BXIIE05D)*

Barclays Euro-Bund Alt Roll Futures Index in USD (BXIIE10D)*

Barclays JGB Alt Roll 10yr Futures ER Index in USD (BXIJTED)*

Commodities**

Gold Futures (BCC2GCOP)

* Non-US-dollar denominated assets have their profits and losses converted to US dollars on a daily basis.

** "Equities" & "Commodities" components are futures indices except prior to 17-Dec-2009, when the "Emerging Markets" component was an ETF.

Portfolio construction based on Modern Portfolio Theory and momentum investing

2-step optimization
(Max 150% exposure)

1 The base combination

Objective

Maximize long-term returns based on principles of Modern Portfolio Theory

2 The optimal combination

Objective

Tilt the weights of the base combination, based on momentum investing to react to short-term trends

On each business day, Global MA determines an optimal combination of the index components using a two-step process.

The first step is a process known as mean variance optimization and is based on the principles of **Modern Portfolio Theory**. Incorporating historical volatilities and correlations of the index components, the mean variance-optimization process eliminates combinations with an estimated volatility greater than 7%, and selects the remaining combination with the highest estimated return potential by assuming a direct relationship between risk and return. This is known as the **“base combination.”**

The second step tilts the weights in the base combination by up to 20% in total to reduce exposure to index components with weaker recent performance. This process selects an adjusted combination with the strongest short-term performance momentum subject to the 7% volatility limit. This is called the **“optimal combination.”**

On a daily basis, the Index checks whether it should rebalance its portfolio to match the optimal combination.

Rebalance will occur only if the current weights and the optimal weights are different by more than 10% in total for all index components in either the consolidated equities & commodities asset class or the fixed income asset class.

This dynamic-rebalancing approach is designed to avoid unnecessary adjustments to the portfolio when the market is stable, but also allows the Index to rebalance among the components as frequently as daily when market conditions are volatile.

Volatility control overlay

150% X 150% =
225% Max Exposure

In addition to dynamically rebalancing the portfolio, the Index adjusts its exposure to the portfolio up or down in an attempt to maintain the 7% volatility target. This exposure can be up to 150%, such that the Index may have up to 225% exposure to the index components.

**Global Equities, Fixed
Income & Commodities**

**2-step Optimization
to capture: long-term
volatility and correlation
short-term trends**

**Ability to
rebalance daily**

**7% volatility
control**

The Index is calculated net of running and rebalancing costs for each index component. For more information on these costs, please see the risk factors below.

For liquidity purposes, within the optimal combination all fixed income components have a maximum weight of 50%, while the weight for Barclays US Tracker ER Index (BXIIUSER) is capped at 25%, Barclays US Tech Tracker ER Index (BXIITTER) and Barclays Europe Tracker USD ER Index (BXIITUE) equities at 20%, Barclays GERMANY Tracker USD ER Index (BXIIDEUE) and Barclays Japan Tracker USD Index (BXIITUE) at 15%, Barclays MSCI Emerging Market Tracker ER Index (BXIIMEER) at 10%, and Gold Futures (BCC2GCOP) at 20%. The volatility control overlay may increase these weights by up to 1.5x.

Risk factors

An allocation to one of the Barclays Global MA Indexed Accounts also involves fees, costs and risks. The following is a summary of these fees and costs and certain risks associated with the Index. Clients should consider the following, and consult with their advisors and read any product documentation carefully, before allocating to one of the Indexed Accounts based on the performance of the Index.

The Index strategy may be unsuccessful. Historical volatility may prove to be a poor measure of predicting future returns and future volatility. Similarly, recent performance momentum may be a poor measure of predicting future returns. If either of the above is true, the allocation of underlying index components in the Index may not be optimized and the Index may perform poorly. The volatility control mechanism may not achieve its intended goal, and the Index may not achieve its target volatility of 7%. In addition, the Index may assign up to 225% of total exposure to its underlying assets, because relevant exposure levels determined by daily optimization and volatility control can both be up to 150%. When the Index's exposure to its underlying index components is greater than 100%, any negative performance of the underlying assets will be magnified and the level of the Index may decrease significantly.

Each of the Index components carries two costs that are embedded in the performance of the Index. A running cost ranging from 0.20% to 0.30% per annum depending on the component (except prior to 17-Dec-2009, a floating rate of 3m LIBOR plus 0.30% for the Emerging Markets components) is applicable to the notional exposure of the Index to the component and is deducted daily. Additionally, a rebalancing cost ranging from 0.02% to 0.05% depending on the component is applicable to the change in notional exposure to the component as a result of portfolio rebalancing as well as volatility control, and is deducted on the relevant trading day. These deductions will be included in the daily calculation of the Index level and will reduce performance of the Index, and the Index will underperform similar portfolios from which these fees and costs are not deducted.

The Index is subject to risks associated with rolling futures contracts, including the risk that its underlying indices will replace expiring contracts with higher-priced contracts, which may cause the Index values to fall even if the spot levels of the bonds, commodities or equities underlying the relevant futures contracts are stable or increasing in value.

Risk factors, continued

The Index may at any time be allocated in only one or a small number of underlying assets, which produce lower returns than an allocation in a more diversified pool of assets.

The Index is subject to risks associated with movements in the exchange rates between the foreign currencies of the assets to which the Index provide exposure relative to the US dollar and may underperform an index that is based on movements of futures contracts without taking currency conversion into account.

Any weight in the portfolio that is not allocated will earn no return. In addition, if the volatility-control mechanism causes exposure to the Index Portfolio to be less than 100%, the difference will not be allocated and will earn no return.

There is a risk that the optimizer software, which is designed to select an optimal portfolio allocation of assets to achieve a target volatility of 7%, might not be able to create a portfolio that meets the 7% target volatility. Additionally, it is possible that the optimizer software may not generate the same solution when operated on different computers.

For more information, please contact your John Hancock sales representative or call National Sales Support at 888-266-7498, option 2

For agent use only. This material may not be used with the public.

Barclays Bank PLC is the owner of the intellectual property and licensing rights relating to the Index. The Index is operated by Barclays Index Administration, an independent index administration function within Barclays Bank PLC. Barclays Bank PLC may terminate the appointment of, and replace, the Index Sponsor with a successor index sponsor. Following the termination of the appointment of the Index Sponsor, Barclays Bank PLC will publish an announcement of that termination and the identity of the successor index sponsor on barclays.com/indices (or any successor website) as soon as reasonably practicable.

Barclays does not guarantee the accuracy and/or completeness of any index described herein (each an "Index") any data included therein, or any data from which it is based, and Barclays shall not have any liability for any errors, omissions, or interruptions therein. Barclays does not make any warranty, express or implied, as to the results to be obtained from the use of an Index. Barclays expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to an Index or any data included therein. Without limiting any of the foregoing, in no event shall Barclays have liability for any special, punitive, indirect or consequential damages, lost profits, loss of opportunity or other financial loss, even if notified of the possibility of such damages. Barclays is not acting in the capacity as a Fiduciary or as a Municipal Advisor.

None of Barclays, any of its affiliates or subsidiaries nor any of its directors, officers, employees, representatives, delegates or agents shall have any responsibility to any person (whether as a result of negligence or otherwise) for any determination made or anything done (or omitted to be determined or done) in respect of an Index or publication of the levels of the Index and any use to which any person may put the Index or the levels of the Index. In addition, although Barclays reserves the right to make adjustments to correct previously incorrectly published information, including but not limited to the levels of the Index, Barclays is under no obligation to do so and Barclays shall have no liability in respect of any errors or omissions.

Nothing in any of the disclaimers set forth above will exclude or limit liability to the extent such exclusion or limitation is not permitted by law.

Neither Barclays Bank PLC ("BB PLC") nor any of its affiliates (collectively "Barclays") is the issuer or producer of the John Hancock Life Insurance Company (U.S.A.)'s (the "Company" or the "Issuer") life insurance products (the "Products") and Barclays has no responsibilities, obligations or duties to purchasers of the Products. The Barclays Global MA Index (the "Index") together with any Barclays indices that are components of the Index, is a trademark owned by Barclays and, together with any component indices and index data, is licensed for use by the Company as the issuer or producer of the Products.

Barclays' only relationship with the Issuer in respect of the Index is the licensing of the Index, which is administered, compiled and published by BB PLC in its role as the index sponsor (the "Index Sponsor") without regard to the Issuer or the Products or purchasers of the Products. Additionally, the Company as issuer or producer of the Products may for itself execute transaction(s) with Barclays in or relating to the Index in connection with the Products. Purchasers acquire the Products from the Company and purchasers neither acquire any interest in the Index nor enter into any relationship of any kind whatsoever with Barclays upon purchase of the Products. The Products are not sponsored, endorsed, sold or promoted by Barclays and Barclays makes no representation regarding the advisability of the Products or use of the Index or any data included therein. Barclays shall not be liable in any way to the Issuer, Product purchaser or to other third parties in respect of the use or accuracy of the Index or any data included therein.

Insurance products issued by: John Hancock Life Insurance Company (U.S.A.), Boston, MA 02116

MLI092821107-1 Page 4 of 4. Not valid without all pages.