FLEX® Options Structure through CBOE® Would Provide Transparency and Simplicity for Fixed Index Annuity Insurance Carriers

Chicago Board Options Exchange (CBOE) has teamed with AmeriLife, a leading distributor and developer of annuities and other senior market products since 1979, to provide an alternative to the current options hedging process used by carriers to support Fixed Index Annuities (FIAs). We believe having carriers execute their options hedges on an exchange could provide better liquidity, transparency, cost savings, and simplicity for the marketplace. CBOE's Hedge Execution Comparison Tests have shown that this model could result in a 3 to 4 bps savings for the carriers, even accounting for transaction costs.

Current Options Hedging Process for FIA Carriers:

FIA carriers for years have discussed the challenges of the over-the-counter equity options market. Some have expressed frustration over the lengthy process involved in setting up ISDA agreements and the costs associated with maintaining those agreements. Carriers are concerned about liquidity and hedge execution costs given limited counter party relationships. Still more have mentioned discomfort with a market that is not fully transparent.

Perhaps the item that provides the most uncertainty among FIA carriers is the counter party credit risk. This concern was especially heightened in the wake of the 2008 financial crisis. During the financial meltdown, liquidity constraints forced counter parties to limit exposure and charge higher costs, resulting in wider option markets on both opening and closing trades for FIA carriers. At worst, FIA carriers could have been left with money owed from a counter party that became insolvent.

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PRODUCT DEVELOPMENT

CBOE®

Exchange Traded FLEX Options

CBOE and AmeriLife are excited to highlight an alternative to the trading process currently employed by most carriers. Using Exchange-listed FLEX options could provide carriers with better liquidity, transparency, cost savings, and simplicity.

FLEX options are customizable, allowing carriers the ability to define the terms of the options contract that match the liability terms of the annuity contract. FLEX options terms such as strike and expiration date are not constrained to those of standard listed options that traditionally have fixed strikes and limited expiration dates, commonly the third Friday of the month.

CBOE introduced FLEX options in 1993, but there were several restrictions that made them impractical for FIA carriers. For instance, index FLEX options required a $10 million notional amount to open a new series. There were also “black-out” dates that prevented market participants from creating a FLEX option that expired on the five days surrounding the standard 3rd Friday expiration. Recently, with the support of the insurance industry, CBOE successfully petitioned the SEC to remove these constraints to accommodate FIA carriers and other market participants.

FLEX options offer many advantages to carriers, some of which include: centralized clearing, daily independent pricing, deep liquidity, and, hence, potentially improved price discovery:

Centralized Clearing: The central clearinghouse becomes the counter party for every trade, regardless of who takes the other side. In the event the party that sold the carrier the option defaults or becomes insolvent, it is the central clearinghouse and its collectively mutualized membership that bears the risk. The Options Clearing Corporation (OCC) is the central clearinghouse for the US listed options market, and has earned Standard & Poor’s triple-A credit rating for 18 consecutive years.

Daily Independent Pricing: The clearing corporation, as an independent third party, provides daily pricing for all standard and non-standard expiries. Thus, the carrier is not beholden to the counter party for pricing the asset.

Deep Liquidity: There is an abundant supply of liquidity in CBOE’s SPX options, both in the standard and FLEX variety. Amongst all CBOE SPX option products (standard listed, FLEX, binaries, mini-SPX, etc.), over $175 billion notional trades per day; open interest exceeds $2 trillion. The traditional investment banks are permit holders of the Exchange and can execute FLEX trades both for and with a carrier. Other market participants include hedge funds, proprietary trading firms, and other large institutions. Many of the same firms that offer liquidity on CBOE’s standard SPX options also provide liquidity in the Exchange’s FLEX options. Moreover, OCC’s risk-based margin methodology for liquidity providing firms allows for capital efficiencies to be achieved between a firm’s standard SPX option positions and their FLEX SPX option positions. For instance, if a liquidity providing firm is already long straddles in standard SPX options (long vega), that firm may be able to achieve capital relief by establishing a short vega position in FLEX. The ultimate benefit for FIA carriers is that these liquidity providing firms may be able to show more aggressive markets as compared to other liquidity providing firms that are not as heavily involved at CBOE.

Price Discovery: A key benefit of exchange-traded derivatives is that price discovery is achieved in an open, competitive and transparent auction market where everyone participates equally, providing carriers easy access to multiple sources of liquidity.

Hedge Execution Comparison Tests for FIA Carriers:

CBOE has conducted several Hedge Execution Comparison Tests for FIA carriers, generating Requests for Quotes to liquidity sources on the Exchange simultaneously with RFQs to the carriers' OTC counter parties. These liquidity sources include national and local proprietary trading firms and hedge funds, liquidity to which, traditionally, FIA carriers have not had access. CBOE has been educating these liquidity sources about the needs of FIA carriers, and they are excited at the prospect of having access to the natural buyers of options they may need to sell.

CBOE's hedge execution comparison tests have shown, on average, about 3 to 4 bps savings for the participant insurers, including transaction costs, on the most common hedge type (i.e. 1-year point-to-point with a cap). The results listed were from tests that CBOE conducted on behalf of several different carriers. Savings are more significant on less common hedge structures, but these cannot be shared as carriers have requested anonymity. Exact notionals and strikes have been altered slightly for confidentiality purposes.

Index	Structure	Notional *(millions)*	Best OTC	Best CBOE	Savings *(bps)*
SPX	1-year point-to-point with cap (~102%/~106%)	$13.1	2.115%	2.071%	4.40
SPX	1-year point-to-point with cap (100%/~108%)	$14.8	3.640%	3.650%	0.00*
SPX	1-year point-to-point with cap (100%/~104%)	$13.3	2.130%	2.090%	4.00
SPX	1-year point-to-point with cap (100%/~107%)	$14.7	3.220%	3.200%	2.00
SPX	1-year point-to-point with cap (100%/~107%)	$2.1	3.240%	3.158%	8.20
SPX	1-year point-to-point with cap (100%/~105%)	$10.4	2.370%	2.381%	0.00*
SPX	1-year point-to-point with cap (~101%/~108%)	$12.1	3.207%	3.150%	5.70
SPX	1-year point-to-point with cap (~99%/~104%)	$6.4	2.650%	2.603%	4.70
SPX	1-year point-to-point with cap (~101%/~107%)	$12.2	2.764%	2.714%	5.00
SPX	1-year point-to-point with cap (~102%/~107%)	$11.9	2.770%	2.730%	4.00
SPX	1-year point-to-point with cap (~101%/~106%)	$12.4	2.470%	2.430%	4.00
SPX	1-year point-to-point with cap (100%/~105%)	$9.2	2.390%	2.395%	0.00*
SPX	1-year point-to-point with cap (100%/~108%)	$12.5	4.040%	4.010%	3.00

Avg. Savings on winners (bps):	3.46
Typical Execution and Clearing Costs (bps):	0.17
Net Savings (bps):	3.29

*If there is no savings, or if the OTC markets were better, the savings is $0 rather than negative, as the trade would be executed OTC, provided that the exposure to that carrier at the best price did not exceed the carrier's internal counterparty exposure limits.

FIA Carrier Block	Average Annual savings based on net 3.29 bps total
$1 billion	$329,000
$5 billion	$1,645,000
$10 billion	$3,290,000
$15 billion	$4,935,000

We are confident the data illustrated above provide a compelling argument for Fixed Index Annuity carriers to explore exchange traded options. FLEX options can provide a suitable vehicle for matching the crediting methods of many FIA carriers. Additional sources of liquidity could result in significant cost savings for the carriers, and the centralized clearing of the assets that back up the annuities will not only mitigate counter-party risks, but also could provide customer appeal.

CBOE would be happy to assist in evaluating your firm's hedge execution quality. Please contact John Wiesner at *wiesner@cboe.com* to schedule a Hedge Execution Comparison Test.

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