2020 LIFE & ANNUITY VIRTUAL SYMPOSIUM

Recent Trend of Fixed Indexed Annuities and Structured Annuities Product Development

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Wells Fargo Reinsurance

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2020 LIFE & ANNUITY VIRTUAL SYMPOSIUM

Recent Trend of Fixed Indexed Annuities

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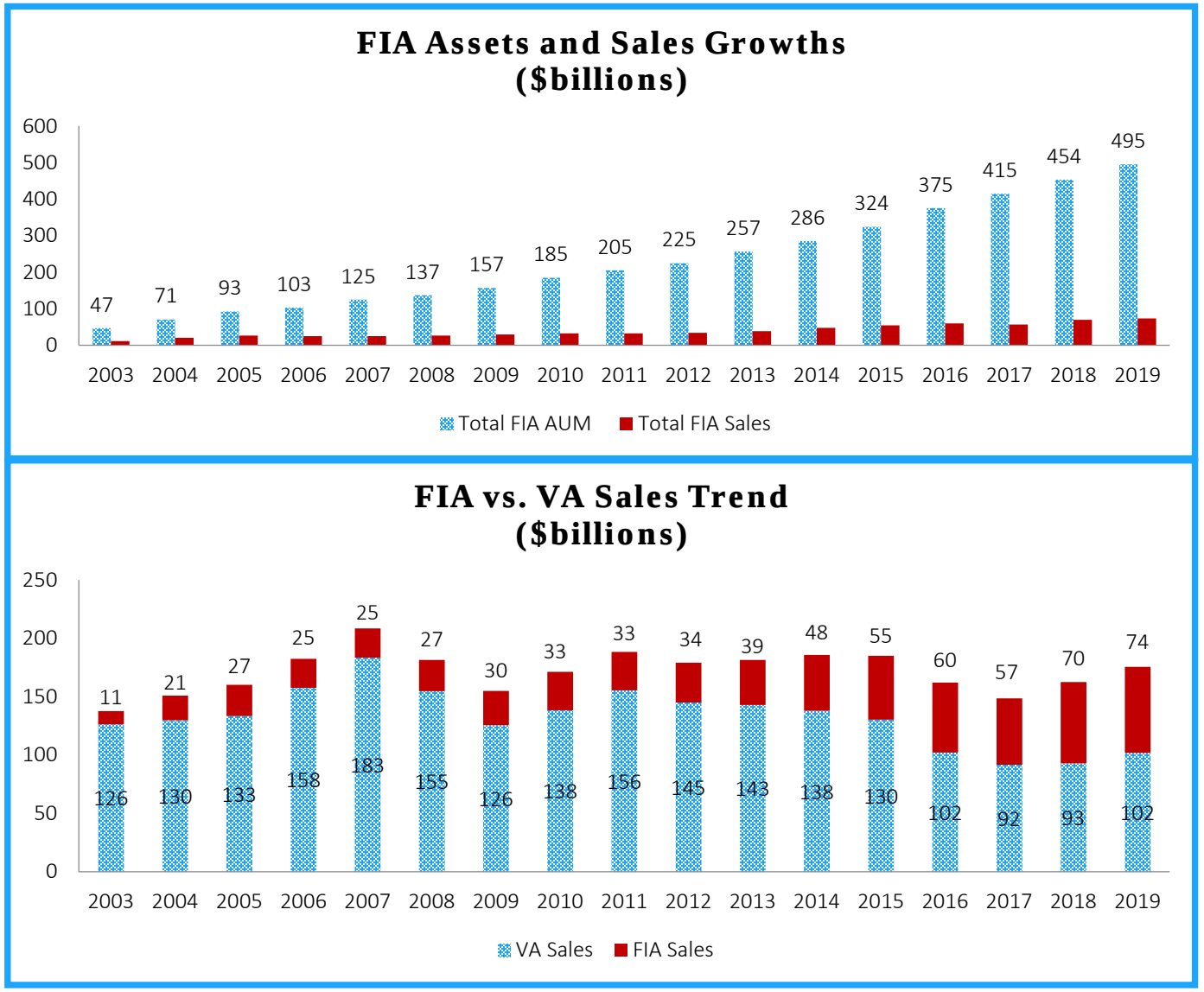
Fixed Indexed Annuity Market - Assets & Sales Growth (2003-2019)



Source: LIMRA Secure Retirement Institute; IRI 2019 Retirement Fact Book. 2019 YE FIA AUM is estimated.

- Indexed Annuity sales have grown steadily (11.4% CAGR over 2015-19) while VA sales have declined since 2011.
- Indexed Annuity sales growth due to:
  - **Policyholder benefits:**

    (1) **Greater account value growth potential** due to equity indexed crediting rate vs. traditional fixed rate annuities

    (2) **Preservation of principal** with a 0% crediting rate floor whereas VA's could lose money

    (3) Low interest rates make **Indexed Annuities more attractive** than regular FAs to conservative investors

  - **Insurance Carrier benefits:**

    (1) **Indexed Annuities as a growth engine** that offer a stable risk profile due to high-quality, fixed income assets as well as hedged exposure to equity markets

    (2) **Diversification** of their business mix

Fixed Indexed Annuity 2019 Sales – Top 20 Carriers

2019 FIA Sales ($ in Thousands)

Rank	Company	2019 Sales	% of Industry Total	Rank	Company	2019 Sales	% of Industry Total
1	Allianz Life of North America	8,358,718	11%	11	Fidelity & Guaranty Life	2,820,209	4%
2	Athene Annuity & Life	6,122,393	8%	12	North American Company for Life and Health	2,011,720	3%
3	AIG companies	6,026,956	8%	13	Midland National	1,836,938	2%
4	Nationwide	5,455,800	7%	14	EquiTrust Life	1,566,517	2%
5	American Equity Investment Life	4,705,319	6%	15	Symetra Financial	1,394,120	2%
6	Lincoln Financial Group	4,122,282	6%	16	Security Benefit Life	1,392,365	2%
7	Jackson National Life	3,738,838	5%	17	National Life Group	1,299,477	2%
8	Global Atlantic Financial Group	3,607,134	5%	18	Bankers Life & Casualty	1,228,777	2%
9	Pacific Life	3,321,109	5%	19	Massachusetts Mutual Life	1,224,809	2%
10	Great American	3,142,746	4%	20	Delaware Life	1,179,727	2%

* Source: LIMRA 2019 U.S. Individual Annuity Sales

	Top 20	**64,555,954**	**88%**
	Total Industry	**73,500,000**	**100%**

FIA Product Development Trend

- *Customized, Rules-Based Indices* (RBI) continue to be the main theme of the FIA space.
  - Also known as *Managed Volatilities Indices*, *Volatility Controlled Indices*, or *Hybrid Indices*.
- There indices have gain popularities since 2011, similar to *Managed Risk Funds* seen in the Variable Annuity space.
- Below are a few representative indices:
  - JP Morgan Mozaic (used by Nationwide New Height FIA)
  - JP Morgan ETF Efficiente 5 (used by Symetra Edge Plus and Edge Premier FIA's)
  - Goldman Sachs Momentum Builder (used by Western & Southern Indextra FIA)
  - Goldman Sachs Momentum Builder 5S (An updated version of its predecessor)
  - Credit Suisse Retiree Index Volatility Controlled
  - S&P Daily Risk Controlled 5% Index

FIA Product Development Trend

- In 2018, these indices performed well, especially during the market storm in December ("Christmas Eve 2018 Market Sell-off").

- 2019 was a year of bull equity market where S&P 500 returned 29%. In contrast, the managed volatility indices only delivered high single-digit returns.

- 2020 has seen severe impact on broad market by the Covid-19 pandemic that started in January and became a global pandemic in March.

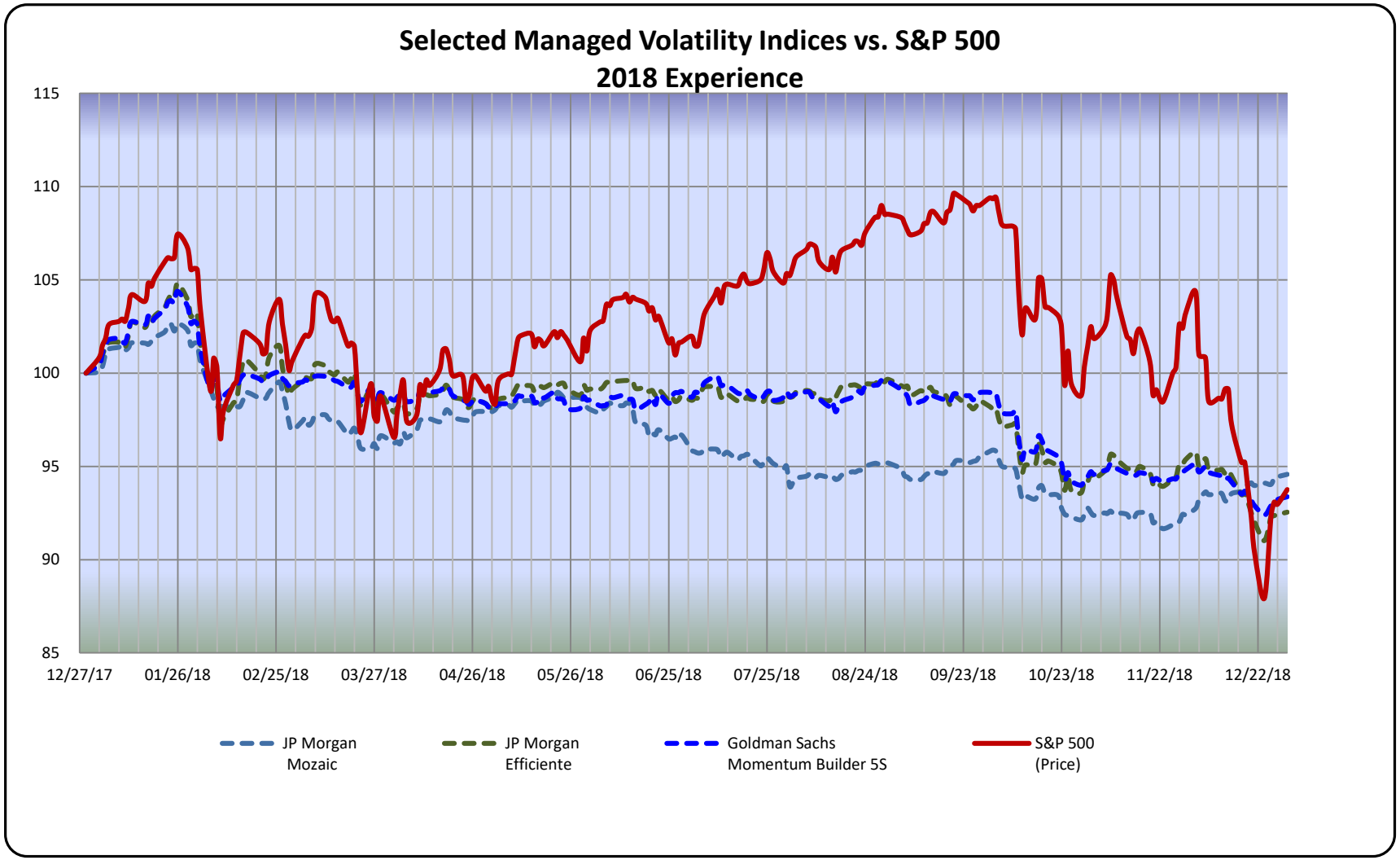
Managed Volatility Indices: 2018 Performances

- Reasonably good performances in 2018, during which S&P 500 declined by 6.24%.
- Most of these indices experienced small negative returns, beating S&P 500.
- They also experienced **less maximum drawdowns** when compared with S&P.
  - Maximum drawdowns are measured from the recent highest point to the lowest point in a given observation period (i.e., ***"peak" to "trough"***).

Managed Volatility Indices – 2018 Experience (1/1-12/31/2018)

	JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	Average of the 5 Indices	S&P 500 (Price)	S&P Daily RC 5% Index
Return (1/1-12/31/2018)	-5.43%	-7.45%	-3.40%	-3.45%	-6.62%	**-5.27%**	**-6.24%**	**0.61%**
Maximum Drawdown	-10.71%	-13.15%	-7.30%	-7.97%	-11.49%	**-10.13%**	**-19.78%**	**-6.94%**

Managed Volatility Indices: 2018 Performances



S&P 500 ended in **red** for the first time since 2011

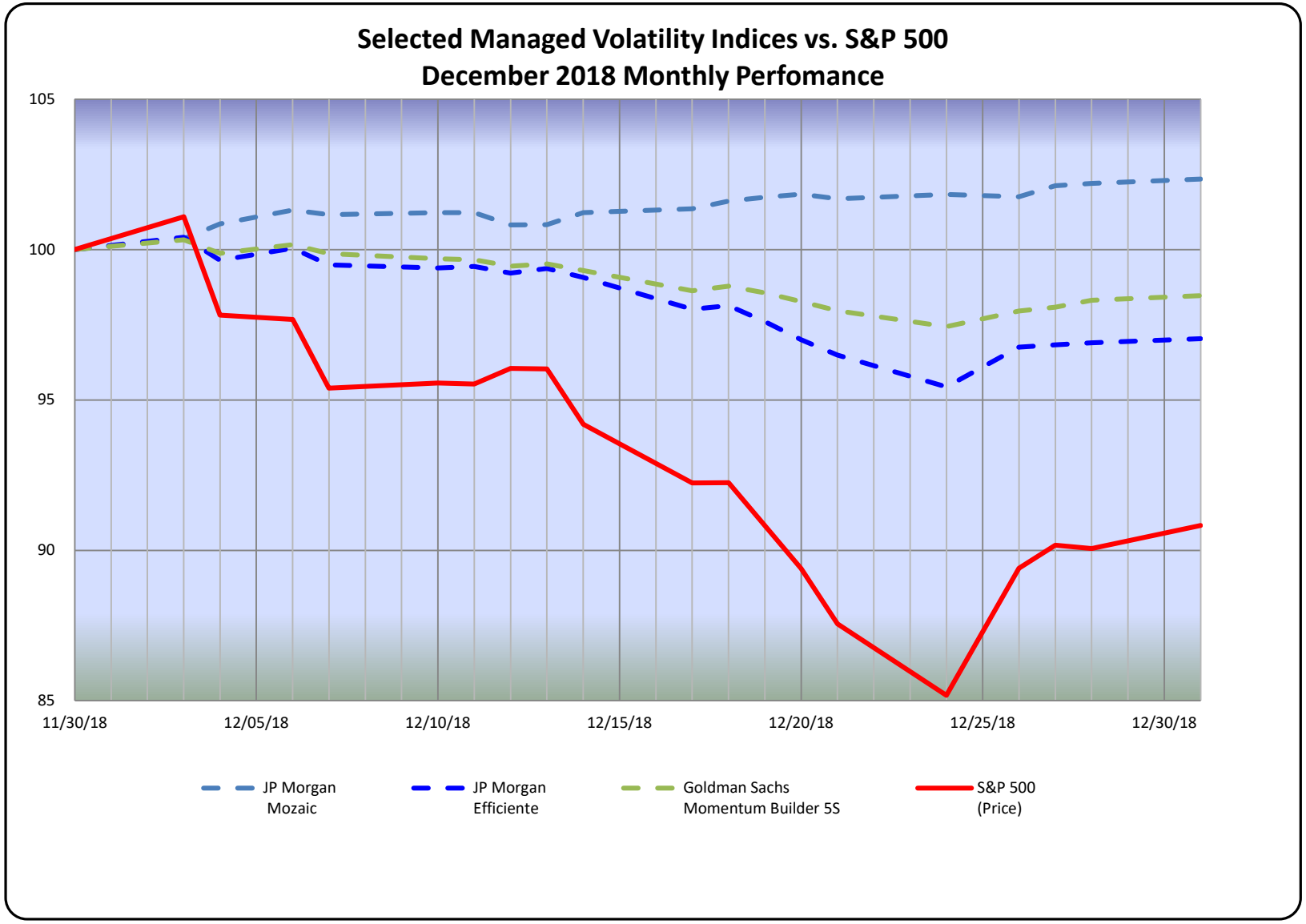
Managed Volatility Indices: December 2018 Experience

- December 2018 was a particular turbulent month
  - Federal Reserve increased the Fed Funds Rate, upsetting investors;
  - Trade tension between China and U.S. continued with no solution in sight;
  - Federal government shutdown without a bipartisan resolution on budget.
- S&P lost 9.18% over December, but managed volatility indices mostly suffered only small losses, and some even achieved a small gain.
  - Notably, JP Morgan Mozaic achieved a positive return of 2.34%, due to its "risk parity" approach which over-leveraged fixed-income assets.

Managed Volatility Indices – December 2018 Monthly Experience

	JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	Average of the 5 Indices	S&P 500 (Price)	S&P Daily RC 5% Index
December 2018 Return	2.34%	-2.97%	-1.05%	-2.58%	-1.53%	**-1.16%**	**-9.18%**	**-2.18%**
Maximum Drawdown	-1.93%	-4.96%	-2.06%	-4.01%	-2.88%	**-3.17%**	**-15.74%**	**-3.88%**

Managed Volatility Indices: December 2018 Experience



- The S&P 500 loss was the worst December loss since the Great Depression.
- Reached the lowest point on Christmas Eve (12/14/2018)
- Managed Volatility Indices performed well.

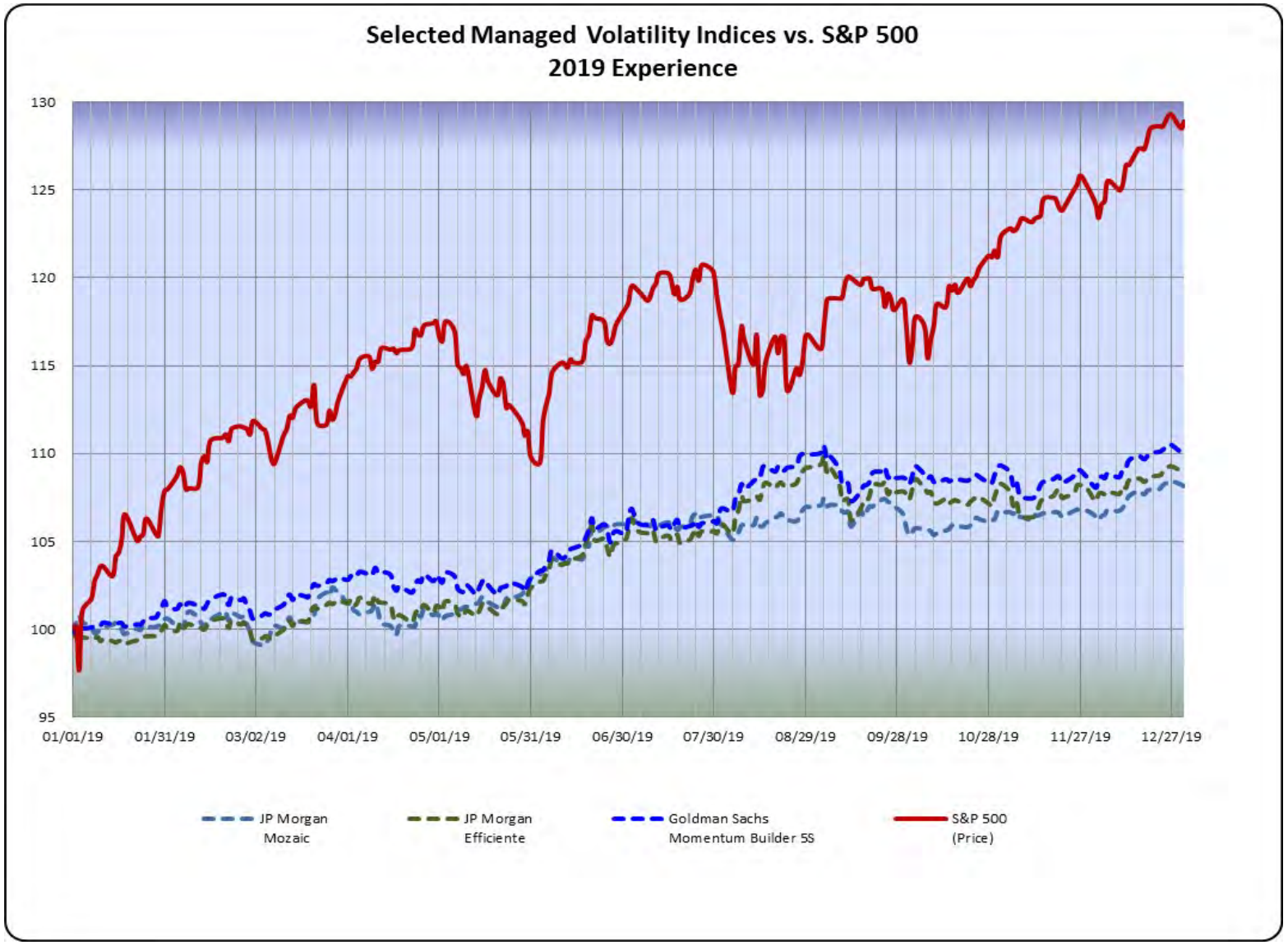
Managed Volatility Indices: 2019 Performances

- Following the worst December loss since the 1929 Great Depression, S&P 500 achieved the biggest quarterly gain in a decade.
  - Favorable economic indicator such as lower inflation;
  - Renewed optimism on progress of trade talk between U.S. and China.
  - Bond yields also continue to rise
- S&P 500 returned 13.07% during the 1Q 2019, while RBI's delivered low single-digit returns. This is similar to performance of managed risk VA funds, where in-fund hedging results in a drag on fund returns during market rally.
- In whole year 2019, S&P returned 29%. In contrast, the customized indices return in high single digits.

Managed Volatility Indices – Calendar Year 2019 Experience

	JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	Average of the 5 Indices	S&P 500 (Price)	S&P Daily RC 5% Index
2019 Returns	8.14%	8.88%	7.91%	3.40%	6.17%	**8.24%**	**28.88%**	**9.74%**

Managed Volatility Indices: 2019 Performances



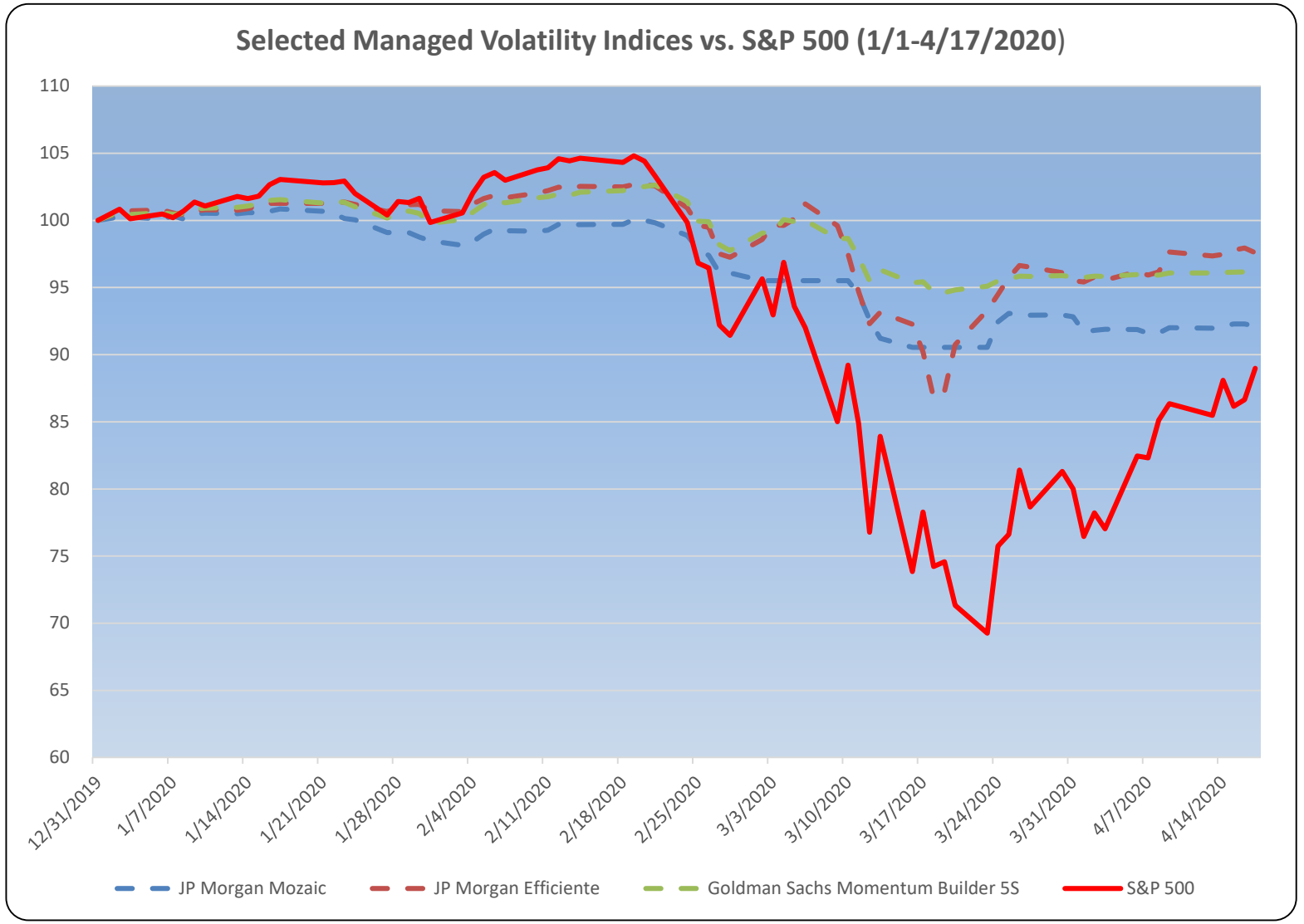
In 2019, Managed Volatility Indices lagged behind S&P in a bull market year, where S&P 500 returned 29%.

2020 - The Impact of Covid-19 Pandemic on Market

- Sell-off in broad equity market started on February 18, causing Dow Jones Industry Average and S&P 500 to lose ~12% in just over a week (2/18 through 2/28).
- On March 11th, WHO declared Covid-19 a global pandemic.
- Sell-off continued in March, with S&P 500 further losing another ~13%. Equity market did recover ~11% in April (4/1 through 4/17).
- The 10-year Treasury Rate dropped below 1% for the first time. The 10-year rate on 4/17 was 0.62%.
- As a comparison, the managed volatility indices lost about 4% on average YTD vs. 11% loss on S&P (YTD through 4/17/2020)

2020 Return Experiences	JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	Average of the 5 Indices	S&P 500 (Price)	S&P Daily RC 5% Index
Jan-20	-1.52%	0.71%	0.09%	-0.48%	-0.22%	**-0.28%**	-0.16%	0.13%
Feb-20	-2.43%	-3.44%	-3.52%	-1.83%	-2.04%	**-2.65%**	-8.41%	-2.88%
Mar-20	-3.39%	-1.78%	0.31%	-0.54%	-2.00%	**-1.48%**	-12.51%	-1.06%
Apr-20 (through 4/17)	-0.74%	2.17%	-0.19%	0.66%	0.33%	**0.45%**	11.22%	0.78%
YTD 2020 (through 4/17)	-7.87%	-2.42%	-3.32%	-2.19%	-3.89%	**-3.94%**	-11.03%	-3.04%

2020 - The Impact of Covid-19 Pandemic on Market



Broad market sell-Off due to Covid-19 started in late February 2020, and continued through March.

Historical Returns and Volatilities (since 1/1/2010)

Managed Volatility Indexes vs S&P 500
Historical Annualized Returns (through 4/17/2020)

	Annualized Return *						
Year	JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	S&P 500 (Price)	S&P Daily RC 5% Index
2010	8.46%	6.59%	4.03%	9.04%	9.94%	12.78%	5.03%
2011	7.48%	11.62%	7.50%	1.79%	9.91%	0.00%	-0.73%
2012	0.13%	6.90%	3.80%	6.80%	8.15%	13.41%	3.71%
2013	4.21%	2.41%	5.99%	8.42%	7.01%	29.60%	12.08%
2014	5.92%	6.67%	6.07%	6.43%	9.53%	11.39%	3.81%
2015	-1.91%	-6.42%	-2.91%	-2.65%	-1.69%	-0.73%	-1.63%
2016	10.07%	4.52%	1.75%	-0.84%	2.40%	9.54%	3.56%
2017	7.36%	8.84%	9.66%	9.66%	8.86%	19.42%	14.72%
2018	-5.43%	-7.45%	-3.40%	-3.45%	-6.62%	-6.24%	0.61%
2019	8.14%	8.88%	7.91%	6.17%	10.11%	28.88%	9.74%
2020	-7.87%	-2.42%	-3.32%	-2.19%	-3.89%	-11.03%	-3.04%

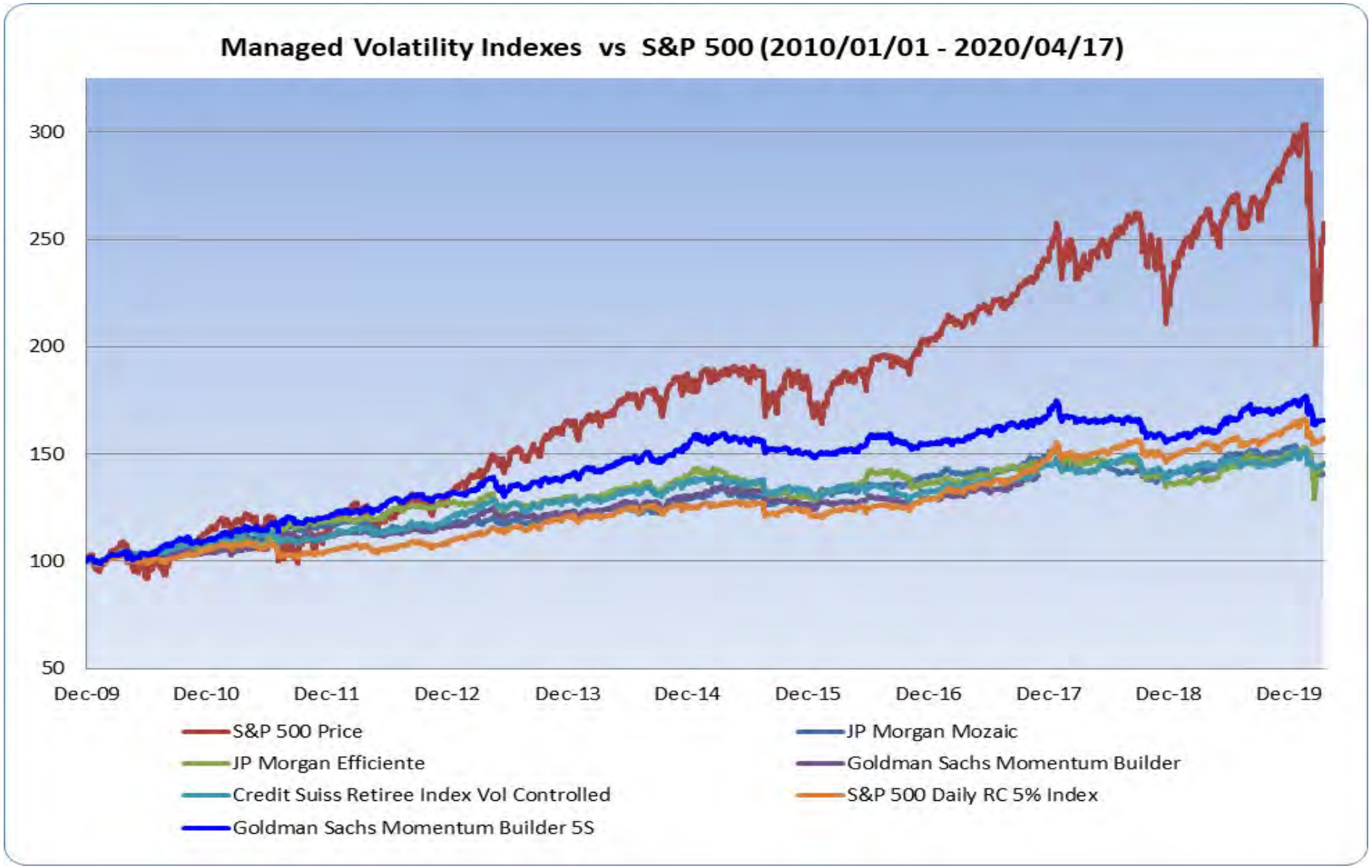
* 2020 Returns are through April 17, and are not annualized.

Managed Volatility Indexes vs S&P 500
Cumulative Annualized Volatilities

	Annualized Volatility **						
Year	JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	S&P 500 (Price)	S&P Daily RC 5% Index
2010	4.6%	6.3%	4.5%	5.0%	6.3%	18.1%	4.9%
2011	4.9%	6.9%	4.7%	5.4%	6.3%	20.9%	5.3%
2012	4.4%	6.1%	4.3%	5.3%	5.8%	18.6%	5.0%
2013	4.2%	5.9%	4.3%	5.4%	5.8%	17.0%	5.0%
2014	4.1%	5.8%	4.3%	5.4%	5.7%	16.0%	5.0%
2015	4.2%	5.8%	4.4%	5.5%	5.7%	15.9%	5.1%
2016	4.2%	5.8%	4.3%	5.6%	5.6%	15.5%	5.0%
2017	4.1%	5.7%	4.2%	5.5%	5.5%	14.7%	5.0%
2018	4.1%	5.9%	4.3%	5.6%	5.5%	15.1%	5.2%
2019	4.2%	5.7%	4.2%	5.5%	5.4%	14.5%	5.0%

** Annualized Volatilites are cumulative experience through YE 2019.

Historical Performances (2010/01/01 – 2020/04/17)



- Over the long-run, S&P Index still provides the highest return, because of the long-term risk/return trade-off. This is true even with the Covid-19.
- The benefits of Managed Volatility Indices are low volatility and deliver steady predicable returns.

What would $100 of investment on 1/1/2010 be worth now (on April 17, 2020)?

JP Morgan Mozaic	JP Morgan Efficiente	Goldman Sachs Momentum Builder	Credit Suiss Retiree Index Vol Controlled	Goldman Sachs Momentum Builder 5S	Average of the 5 Indices	S&P 500 (Price Return)	S&P Daily RC 5% Index
$140.71	**$145.43**	**$142.48**	**$145.16**	**$165.86**	**$147.93**	**$257.78**	**$157.38**

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Structured Annuity Product Development

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Structured Annuities Product Development

- Structured annuities were first introduced by AXA with its *Structured Capital Strategies* as early as 2010.
- May also be known as *Registered Indexed-Linked Annuity* (RILA).
- Similar to some banking products offered by investment firms, such as
  - Retail Structured Notes for high net-worth individuals.
  - Equity-Linked CD's.
- However, being an annuity, structured annuities have certain unique advantages:
  - ***Tax Efficiency***: Policyholder may avoid a tax event at the end of the term by rolling both principal and index gains into a new annuity contract through 1035 exchange. In contrast, a retail structured notes holder will experience a tax event upon maturity of the notes.
  - ***Lifetime Annuity Income***: Policyholder always have the option to convert the contract into lifetime annuity incomes through annuitization, which is not available with retail structured notes.
- Structured annuities are primarily sold through wire-houses and private banks (e.g., Morgan Stanley, Merrill Lynch, Wells Fargo, JP Morgan Chase, etc.), but there has also been a push to expand into Independent Broker Dealer (IBD) and Registered Investment Advisor (RIA) space.
  - We have seen some fee-based advisory versions of structure product offerings.

Structured Annuities At Early Days

- Allianz USA and Brighthouse Financial (formerly the retail division of MetLife) subsequently launched their respective versions in 2013.
  - Allianz Index Advantage VA (first launched September 2013)
  - Brighthouse (MetLife) Shield Level Selector Annuity (first launched May 2013 by MetLife, subsequently updated multiple times by Brighthouse Financial)
- Structured annuities typically provide a ***buffer*** or ***floor*** of index returns, depending whether insurance company or the policyholder takes the first layer of loss.
- Most designs offer a number of broad market indices
  - S&P 500, Russell 2000, NASDAQ 100, MSCI EAFE are most common.
  - Relatively fewer customized, rule-based indices than FIA's.
  - Most current designs don't include a Guaranteed Life Withdrawal Benefit rider (GLWB rider).

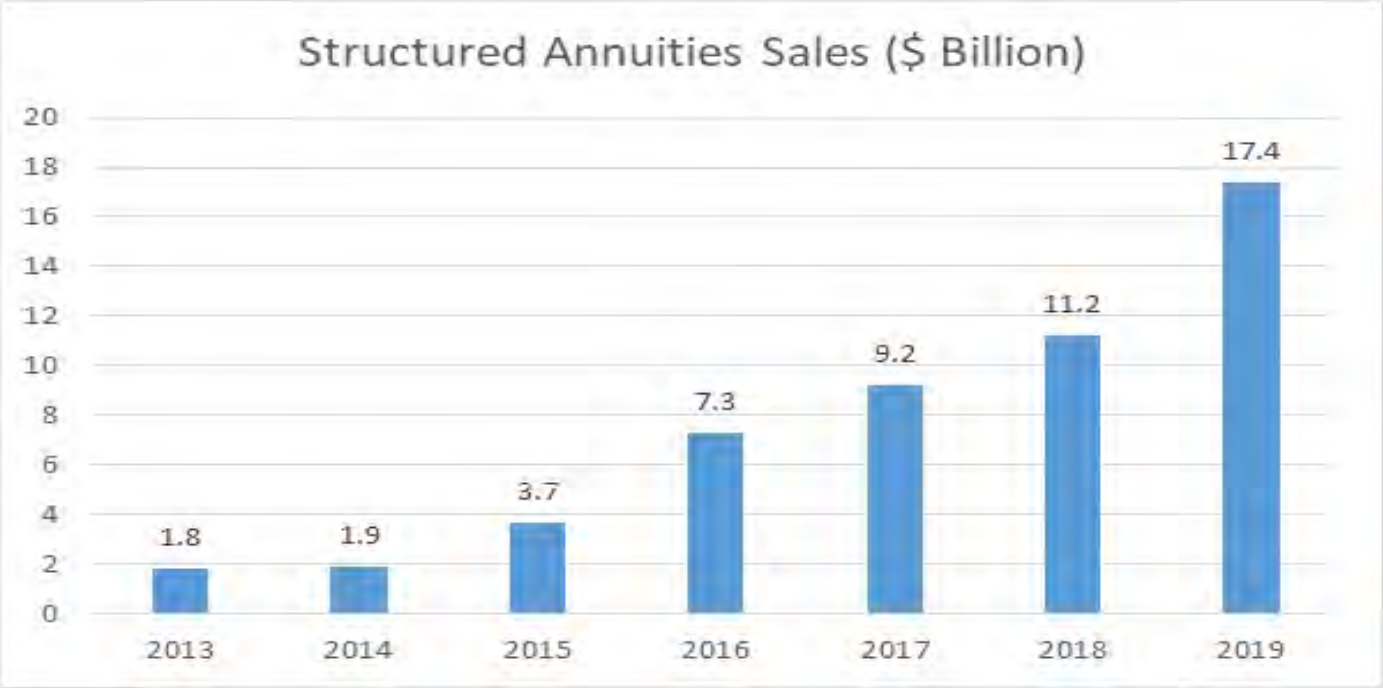
New Players have entered the Market Place

- Lincoln's Level Advantage Indexed VA (Launched May 2018)
- Great-West Capital Choice (Launched December 2017)
- Protective Life Market Defender (Launched December 2017 launch, amended in July 2018)
- Symetra and Athene have each filed SEC shelf-registration in May/June 2018.
  - Symetra launched *Symetra Trek* Registered Indexed Annuity on March 26, 2019.
  - Athene launched *Athene Amplify* on July 16, 2019
- The latest innovation came from Great American, which launched the "*Index Summit 6 Annuity*" in May 2019 in partnership with Raymond James.
  - Index Summit 6 features a limited 50% downside participation rate and a corresponding higher upside participation (depending the choice of index).

Structured Annuities Sales

Structured Annuities Sales Volume ($ Billion)

2013	2014	2015	2016	2017	2018	2019
1.8	1.9	3.7	7.3	9.2	11.2	17.4



Strong growth momentum similar to FIA

Source: Morningstar and LIMRA Secure Retirement Institute

Structured Annuities – Product Feature at a Glance

Company	Allianz	Brighthouse	AXA	Lincoln	Great-West	Protective	Symetra	Athene	Great American
Product Name	Index Advantage (ver. 12/2016)	Shield Level Select * (ver. 2017)	Structured Capital Strategies 16 (ver. 10/2015)	Level Advantage Indexed VA (ver. 01/2018)	Capital Choice (12/2017)	Market Defender (ver. 07/2018)	Symetra Trek (SEC registration 05/2018, market launch 03/26/2019)	Athene Amplify (SEC registration 06/2018, market launch 07/16/2019)	Index Summit 6 Annuity (market launch 05/2019)
Product Chassis	Flexible Premium Indexed VA	Single Premium FIA (min $25,000 initial premium)	Flexible Premium Indexed VA	Flexible Premium Indexed VA	Single Premium FIA	Limited Flexible Premium FIA*	Single Premium FIA (min investment of $25,000)	Single Premium FIA (min investment of $10,000)	Limited Premium Indexed VA (min investment $25,000)
Share Class	B, Advisory	B, L, Advisory	B, C, Advisory	B, Advisory	B, Advisory	B	B	B	B
Surrender Charge	6 years or none	6 years, 3 years or none	5 years or none	6 years or none	6 years or none	6 years	6 years	6 years	6 years
Index Loss Protection	Buffers or Floors	Buffers	Buffers	Buffers or 100% protection	Buffers or Floors or 100% protection	Floors	Buffers or Floors	Buffers or Floors	50% downside participation
Crediting Term Selection	1 year	1/3/6 years for B and Advisory shares, 1/3 years for L share.	1/3/5 years.	1 year or 6 year.	1 year	1 year	1 year	1/2/6 years.	1 year or 2 years; Upside Par or Cap.
Loss Protection Level	-10% for both buffer or floor	-10/-15/-25% buffers available (vary by crediting term)	-10/-20% buffers available (vary by crediting term)	-10/-20/-30% buffers and 100% protection available (vary by crediting term)	Buffer: -10%; Floor: -2.5/-5.0/-7.5/-10% or 100% protection	-5/-10/-20% floors available	-10% for both buffer or floor. Fixed-rate option also available.	-10% for both buffer or floor.	-50% participation.
Indices Available	4 indices: S&P 500; Russell 2000; NASDAQ 100, EuroStoxx 50.	3 indices: S&P 500; Russell 2000; MSCI EAFE	Multiple indices: S&P 500; Russell 2000; NASDAQ 100, MSCI EAFE; MSCI EM PR; etc.	4 indices: S&P 500; Russell 2000; MSCI EAFE; Capital Strength	4 indices: S&P 500; MSCI EAFE; Russell 2000, NASDAQ 100	S&P 500; MSCI EAFE	5 indices: S&P; Russell; NASDAQ; PIMCO Equity Fusion Index; and Fixed Rate option	S&P; Russell; NASDAQ; MSCI EAFE, Performance Blend (wtd avg return of the 3)	S&P 500; iShare MSCI EAFE ETF, iShare U.S. Real Estate; FRS available

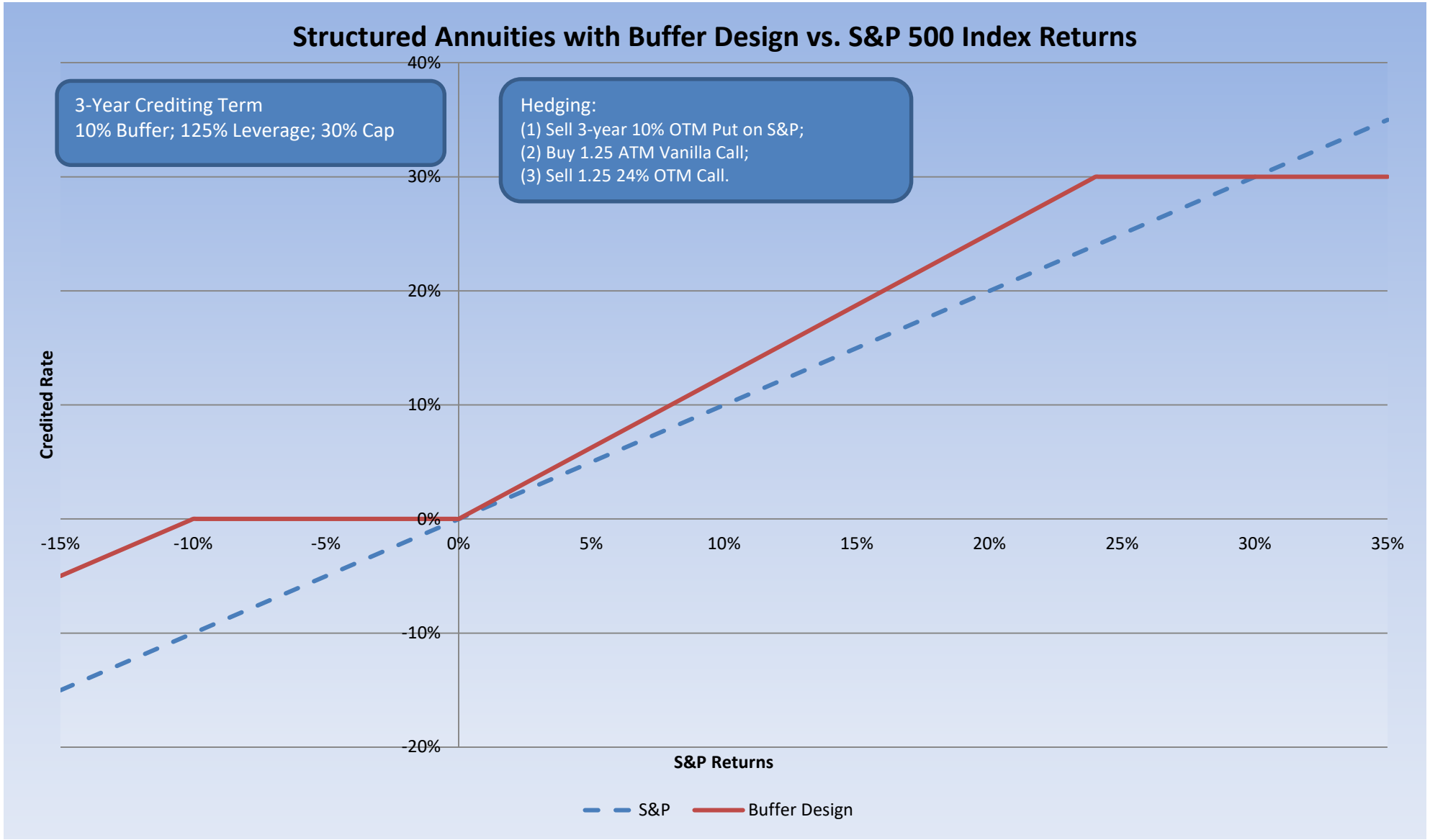
* Protective Life Market Defender: Limited Flexible Premium (purchase payments limited to first contract anniversary or owner's 86th birthday).

Pricing – Same Principle as FIA Pricing

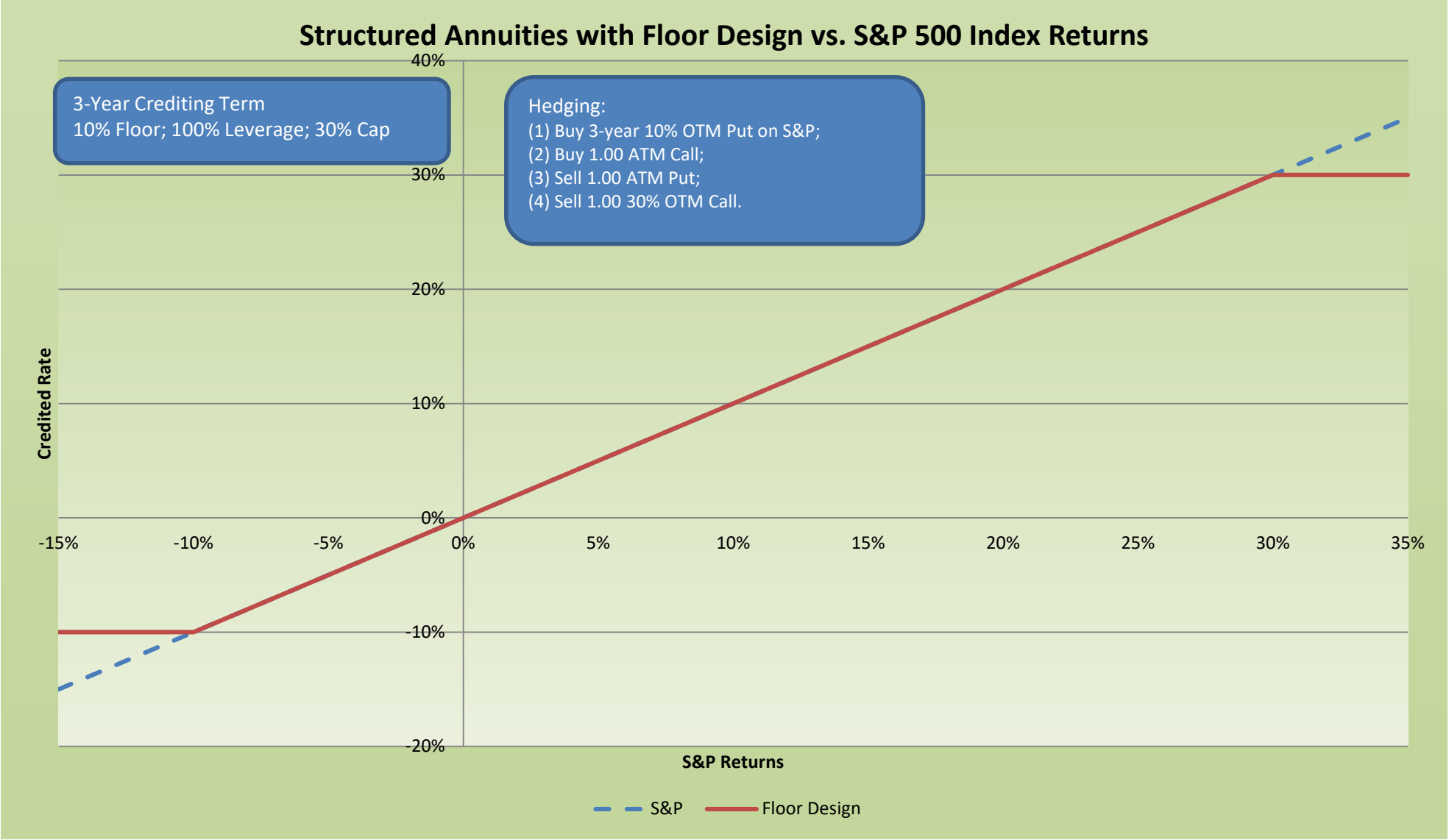
Option Budget = Fixed Income Portfolio Yield – Pricing Spread = Net Cost of the Hedging Options

Monthly or Bi-weekly Rate Setting Process, parallel with FIA rate settings

Hedging Option Payoff Chart – Index Buffer Design



Hedging Option Payoff Chart – Index Floor Design



Hedge Program

- Insurance carriers may use their existing FIA hedging platform for hedging structure annuities index interest crediting.
  - The nature of the hedge target is identical: index interest crediting for each crediting strategy.
- Hedging instruments are similar to those used for FIA
  - Broad market indices
    - Over-the-Counter or Exchange Traded options are most commonly used for indices such as S&P 500.
    - Some companies may use dynamic hedging strategy similar to VA (where index futures may be used to replicate call-based options).
  - Customized indices
    - Purchasing options sold by the index providers are most commonly used.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OLIVER WYMAN

FIA AND STRUCTURED ANNUITIES PRODUCT DEVELOPMENT

2020 Life and Annuity Virtual Symposium

May 5, 2020

Nicholas Carbo, FSA, MAAA

AGENDA

1 **Market update**

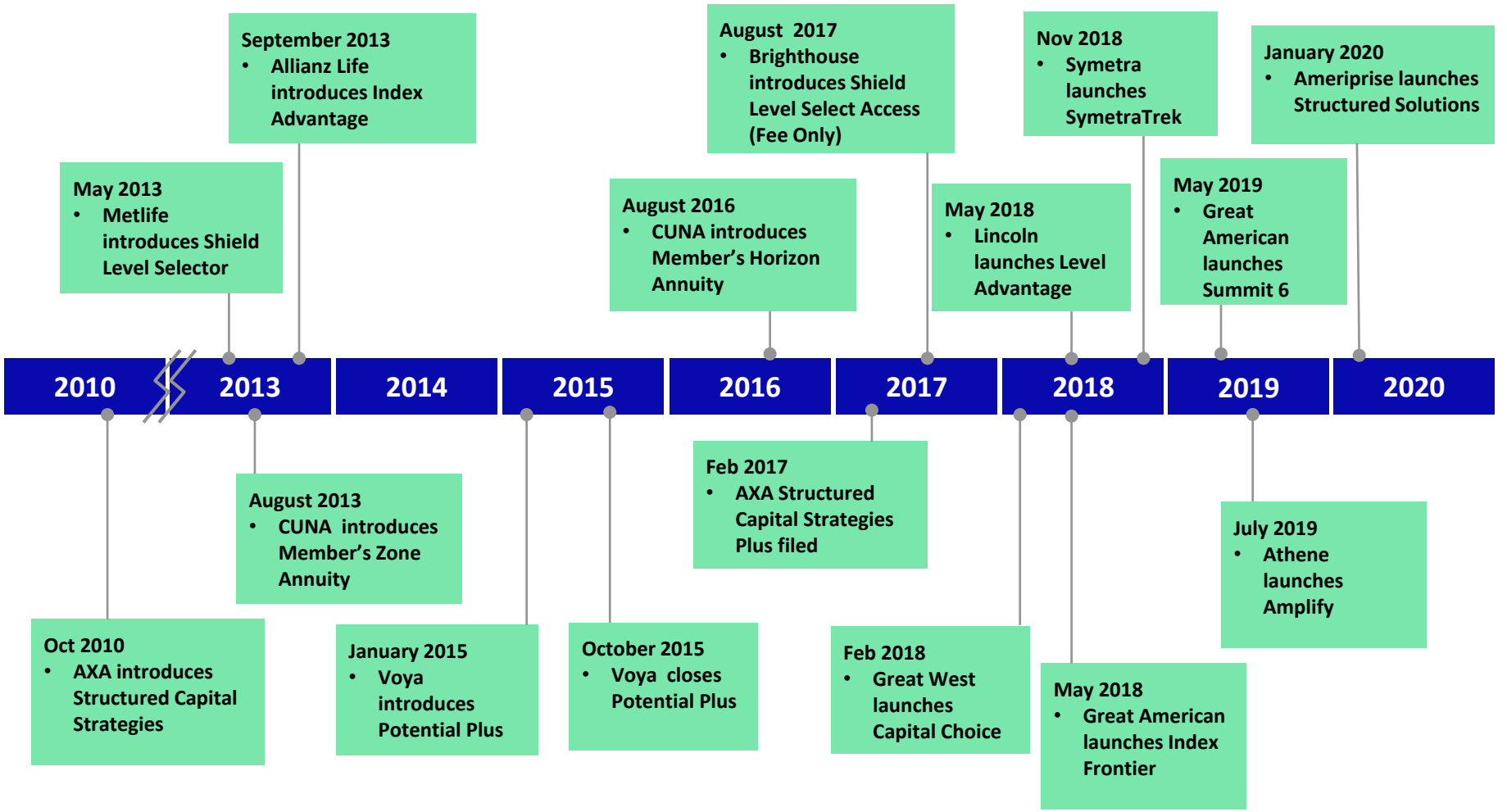
2 **Statutory reporting approaches**

3 **GAAP methodologies**

4 **Risk management and reserve benefits**

STRUCTURED ANNUITY PRODUCT LAUNCHES

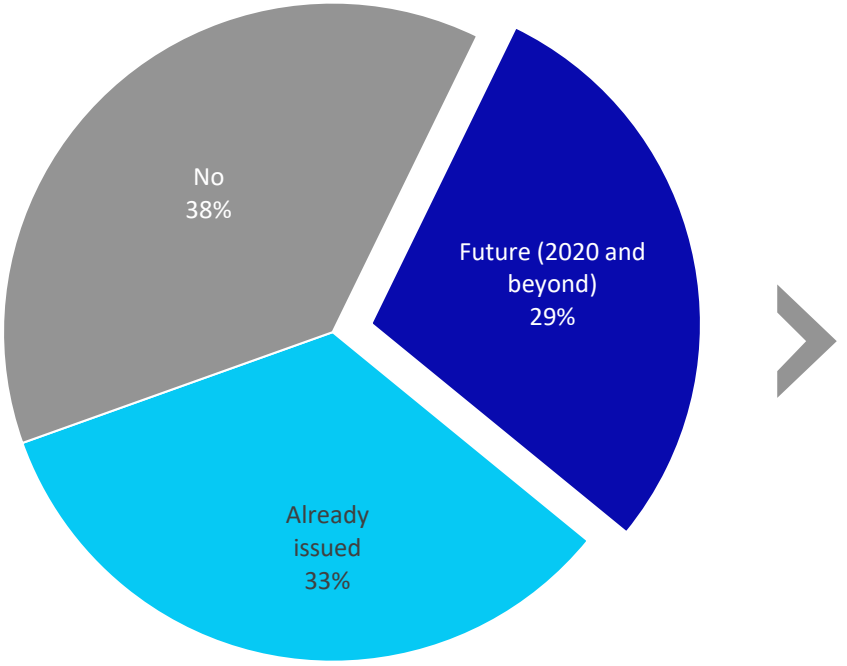
Increasing sales has attracted more participants into the structured annuity space



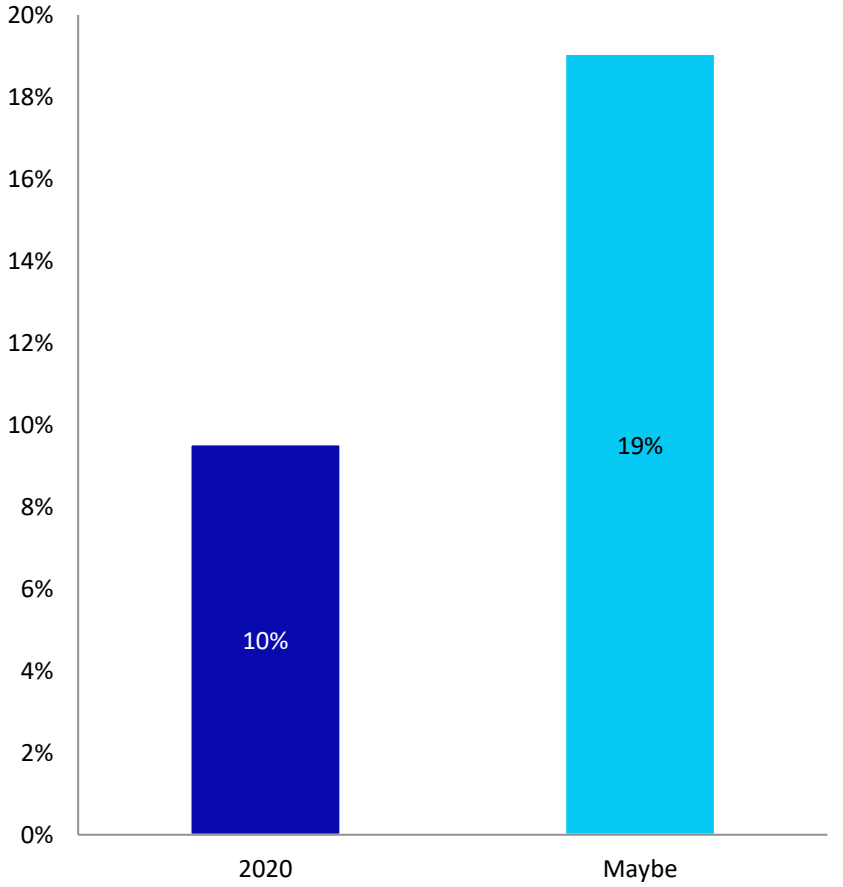
SURVEY OF FIA WRITERS CURRENTLY WRITING STRUCTURED ANNUITIES

More than 50% of FIA writers have considered or plan to offer a structured annuity

Have you started issuing structured annuities?



Future (2020 and beyond)

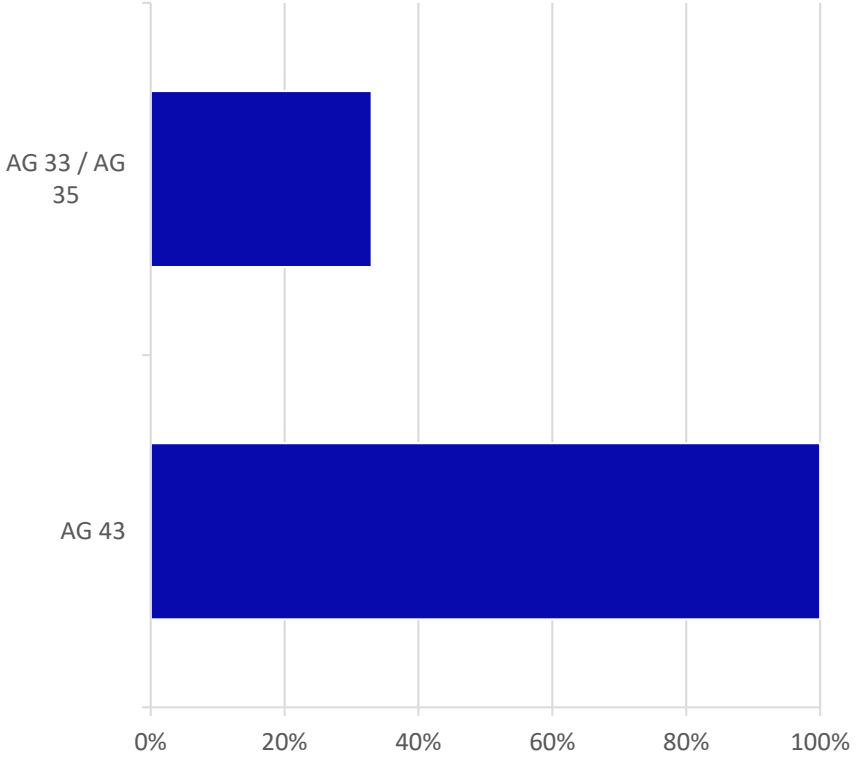


Source: Oliver Wyman survey

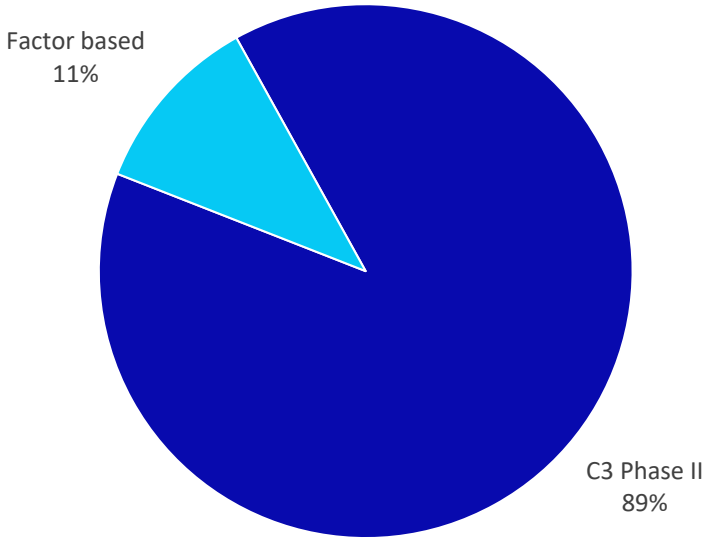
SURVEY OF STATUTORY RESERVING AND CAPITAL APPROACHES

Multiple reserving frameworks are used for statutory reserves, whereas C3 Phase II is the most common framework for capital calculations

Which methods do you use in calculation of your statutory reserves?



How do you calculate RBC capital?

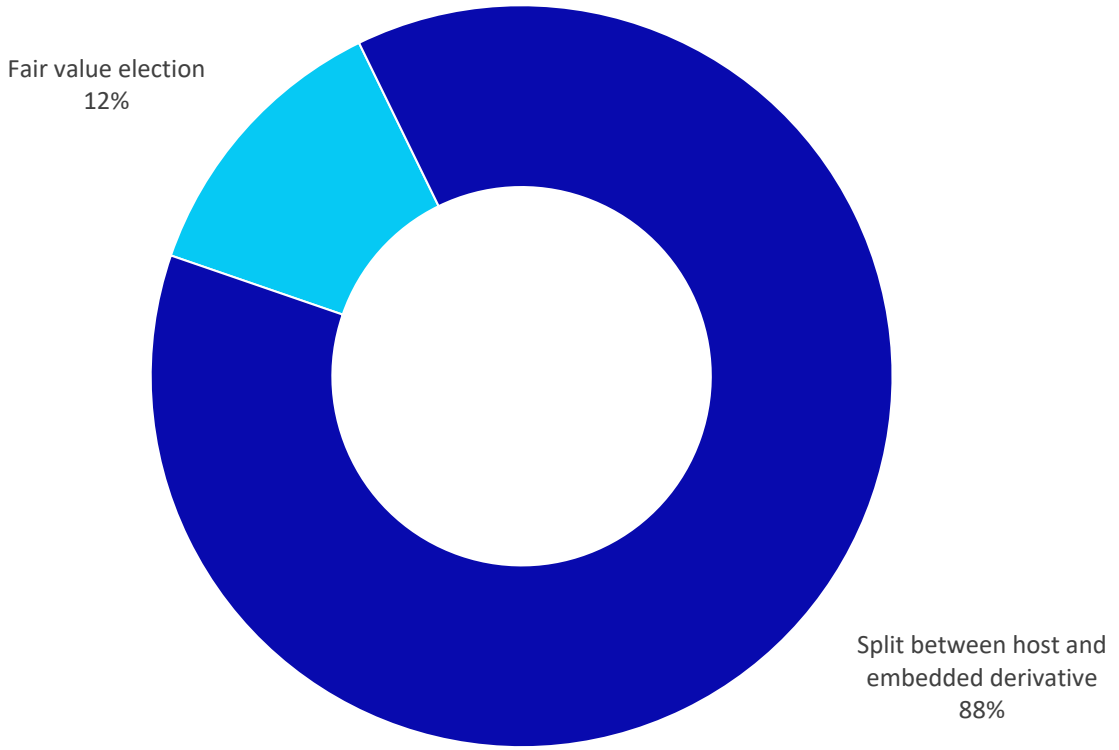


Source: Oliver Wyman survey

SURVEY OF GAAP REPORTING APPROACHES

The majority of structured annuity writers are following the FIA GAAP approach of bifurcating the host and embedded derivative

What method do you use in calculation of your GAAP reserves?



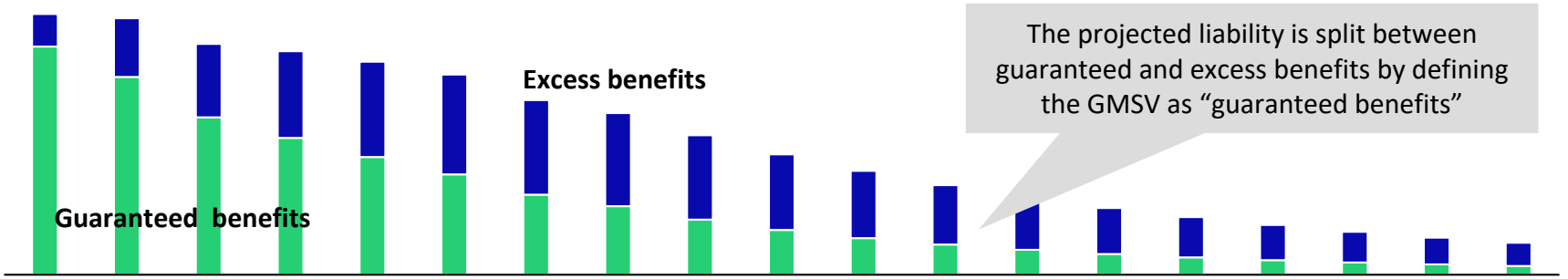
Source: Oliver Wyman survey

DETERMINING FAS 133 RESERVES AT ISSUE

Reserve value at issue is equal to premium, which is bifurcated into an initial VED and host contract

1. Run projection of the liability using **best estimate assumptions**

2. Define **guaranteed benefits** and **excess benefits**



3. Calculate the initial **value of embedded derivative** and initial **host value**

Initial value of embedded derivative = Present value of excess benefits

Initial host value = Premium – initial value of embedded derivative

Discount rate used is risk free + risk margin + own credit spread (commonly)

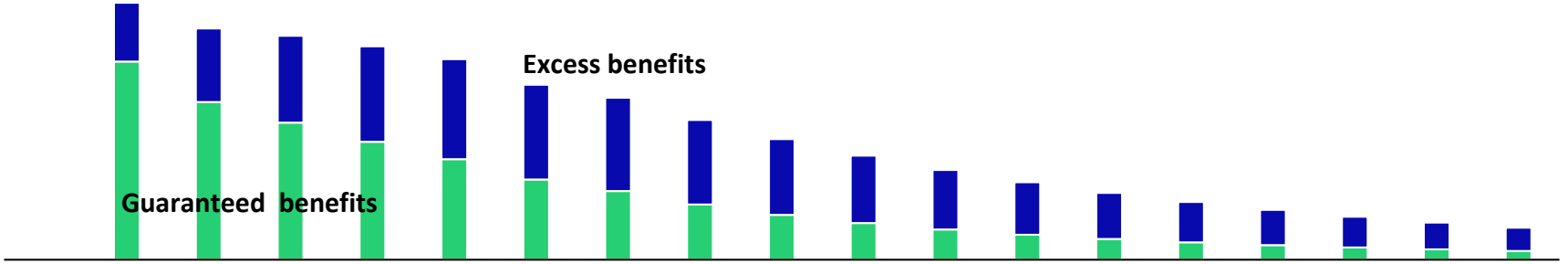
4. Determine the **host accumulation rate**

Host accumulation rate = IRR (Initial host value, stream of guaranteed benefits)

DETERMINING FAS 133 RESERVES AFTER ISSUE

The reserve after issue is dependent upon the best estimate assumptions, embedded derivative discount rate and policyholder behavior

1. Run projection of the liability using **best estimate assumptions**
2. Project **guaranteed benefits** and **excess benefits**



3. Calculate the **value of embedded derivative**

   Value of embedded derivative = Present value of excess benefits

4. Determine the **Host value**

   Host value (t) = Host value (t-1) x (1 + Host accumulation rate)

5. Calculate the **Final reserve**

   Final reserve = Value of embedded derivative + Host value

FAS 133 DIFFERENCES FROM FIA GAAP REPORTING

It is common for structured annuities to use the premium to define the host cash flow

	Reserve item	FIA approach (common)	Structured annuity approach (common)
1	**Host definition**	GMSV	Premium
2	**Embedded derivative**	Excess of Host cashflows	Excess of Host cashflows
3	**Future index terms**	Included	2/3 include 1/3 do not include
4	**Embedded derivative (market downturn)**	Positive only	Allowed to be negative
5	**Fixed account**	Excluded	Excluded

Structured annuities allow the embedded derivative to be negative, due to the downside risk born by the policyholder

Source: Oliver Wyman survey

FAS 133 EXAMPLE

GAAP reserving for structured annuities is not readily intuitive

Example:

5 year index term
Assume no future index terms
Experience (lapses and deaths occur exactly as expected)

Component	At issue	1 year later
Host	88	87
VED	12	(19)
Total GAAP liability	100	68
Interim account value	100	73

Host accrues with interest and decreases with benefits paid

A significant market drop decreased the interim account value

The change in FAS 133 liability may not be aligned with change in interim account value

Industry application of FAS 133 to structured annuities contains non-intuitive elements needed to achieve a practical result[1]

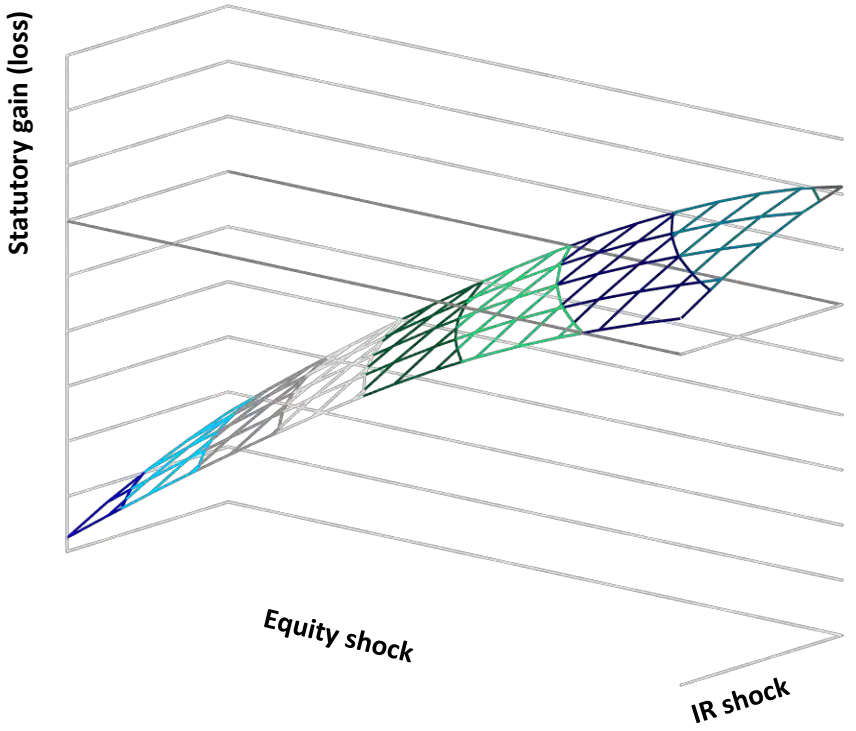
[1]Source: Oliver Wyman survey

STRUCTURED ANNUITIES - HEDGING BENEFITS

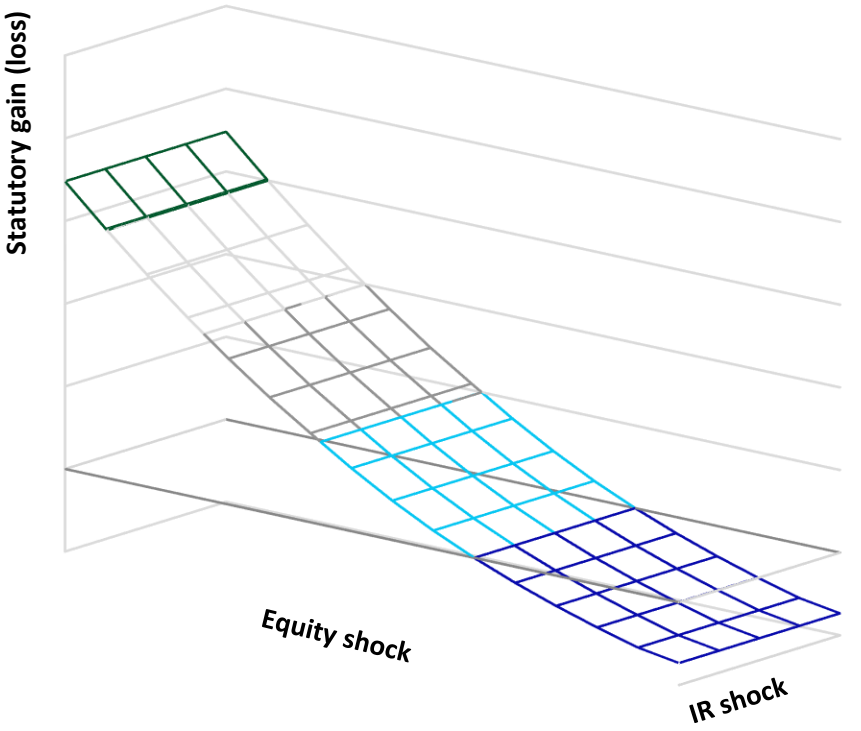
Structured annuities can be used as a hedge against VA GMxB liabilities

Statutory gain (loss) profile across shocks

Traditional VA GMxB



Structured annuities

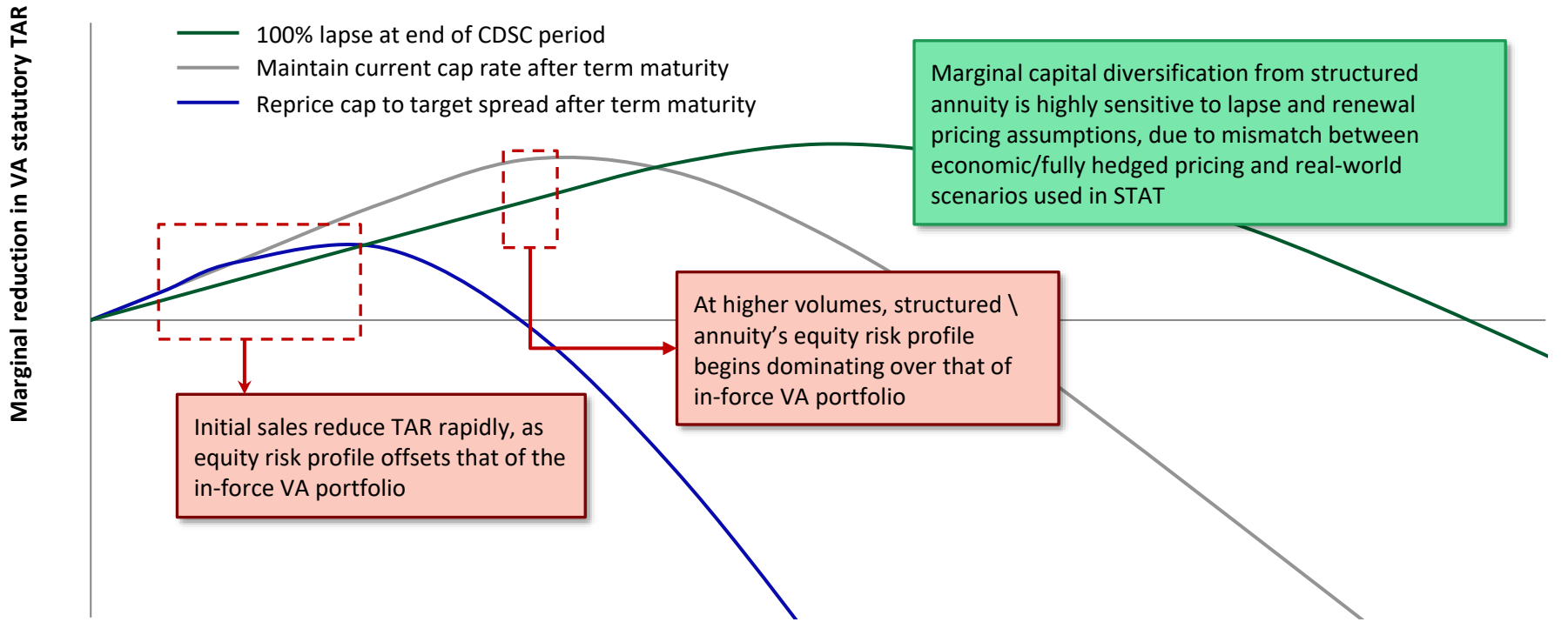


When aggregated with traditional VA GMxBs, unhedged structured annuity exposure essentially acts as an OTM put option – therefore reducing the total hedge need of the VA portfolio

STRUCTURED ANNUITIES - MARKET RISK CAPITAL BENEFITS

Structured annuities provide substantial diversification benefit for market risk capital given inverse equity sensitivity – up to a finite capacity

Marginal reduction in CTE-based VA statutory TAR vs. sales volume
Based on different valuation assumptions for structured annuity



Inclusion of unhedged structured annuity in statutory VA valuations is similar to including a regularly-rebalanced, semi-static options-based hedge program

KEY TAKEAWAYS

1. **Structured annuity products are becoming more popular**

2. **Majority of writers utilize VA statutory and FIA GAAP reporting standards**

3. **Structured annuities provide both hedging and capital benefits for companies with VA GMxB blocks**

Q&A