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Fixed Index Annuity Volatility Controlled Indices

Three years ago when the first overview was published there were a little over two dozen active volatility controlled indices (VCIs) in the fixed index annuity (FIA) space. Today there are fifty. Several new volatility controlled indices have come to the FIA market since the last report. The new indexes and offering carriers are:

BlackRock iBLD Ascenda Index	Lincoln Financial
Franklin US Index	Global Atlantic
Goldman Sachs Motif Aging of America Dynamic Balance	Sentinel Security
Janus Market Consensus II Index *	Athene
Morgan Stanley Dynamic Balance Index	Midland, North American
Morgan Stanley Global Opportunities Index	Delaware
Morgan Stanley Target Equity Balanced Index	Americo
NYSE Expanded Opportunities Index	Transamerica
PIMCO Balanced	Global Atlantic
Shiller Barclays Global Index	Athene
WisdomTree Siegel Strategic Value Index	Athene

Seven vol-controlled indices left the market. Previously *Barclays US Low Volatility II ER RCI 5%* and *Barclays US Low Volatility II ER RCI 7%* had departed the FIA stage. Ones that are no longer open to new annuity owners are:

Barclays ARMOUR II Gross 7% USD	Global Atlantic
Barclays Global Trailblazer Index	Ohio National
BofAML MAST Volatility Target 5% Excess Return Index	Transamerica
Citi Dynamic Asset Selector 5 Excess Return Index	Voya
Deutsche Bank CROCI US 5% Volatility Control Index	Voya
Dow Jones US Real Estate Risk Control 10%	F & G Life
J.P. Morgan Meridian Index	Voya

A recent change was FIA carriers adding indices that sounded like vol-controlled indices, talked a lot about volatility in their marketing materials, but lacked the stated volatility trigger that would have made them actual vol-controlled indices. I believe we'll see more of these pseudo vol-control indices in 2019.

The overview shows returns and volatility levels through 2018; the year ended on a sour note. In the opening months of 2019 the markets have recovered and volatility levels are lower than historic averages. Interest rates have softened. On the surface the year is beginning as a favorable one for both the stock market and vol-controlled indices.

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Two indices on the surface may sound identical, but unless you dig deeply into the lines of print you would never know how different they are. One can find carriers that do use identical volatility controlled indices, where simply looking at the spreads would tell you which could post a higher return, but these are the exception. The reality is that VCIs are both complicated and complex. This overview takes the various index specifications from the VCIs and sorts them by pricing lever and strategy, along with a brief description of what the levers do. All returns reflect gross changes in the index before the application of crediting method spreads, caps or partial participation rates.

A VCI Is Not A Hybrid

Adding a turbocharger to a gas engine affects the performance of the engine, but the car is still propelled by the gas engine. However, adding an electric engine creates two distinct means of propulsion and thus creates a hybrid.

Volatility controlled indices have erroneously been referred to by some as hybrids. A hybrid combines two disparate concepts to make a third – a long-term-care annuity is an example of a hybrid annuity. By contrast, VCIs are simply another way to account for the volatility cost of index-linked interest and thus are related to other volatility reactive methods such as averaging, rebalancing, monthly caps or rainbow methods.

A VCI Has A State Volatility Target (Trigger)

A volatility controlled index has a pre-determined numeric volatility target level; the goal is to keep the overall index volatility at or below the target number. The way this happens is when volatility in the equity index(es) begins to climb, money is moved out of the equity side and into the low volatility side and when volatility decreases, the reverse happens. This has the effect of keeping overall volatility at or below the target. To be a vol-controlled index there must be a stated trigger for the entire index. There are indices that talk about managing for volatility, but unless they have a hard number trigger that forces the reallocation they are not a volatility controlled index.

I'll conclude my introduction with the ending of the first overview: How does one explain an FIA volatility controlled index to a consumer? The same way that any fixed index annuity crediting method is explained...

"This fixed index annuity gives you the potential for hopefully earning competitive interest over time, with a worse case that you will never lose what you've already earned."

* Main differences between Janus Market Consensus Index Version I and II: a) I – rebalances at end of month, II – rebalances in middle of month b) II – no adjustment in average trading volume

Servicing Costs

Some FIA vol-controlled indices deduct a servicing or index fee that ranges from 0.25% to 1.0% per annum that is typically deducted, prorated daily; information about the servicing fee is often found in the disclaimer language.

Has Stated Service Fee	Fee
BNP Paribus High Dividend Plus	1.00%
Barclays All Caps Trailblazer Sector 5	0.85%
Goldman Sachs Motif Aging of America Dynamic Balance	0.75%
UBS Market Pioneers Index	0.75%
BNP Paribas Multi Asset Diversified 5 Index	0.50%
Barclays All Caps Trailblazer 5 Index	0.50%
Goldman Sachs Dynamo Strategy Index	0.50%
Goldman Sachs Momentum Builder Multi-Asset Class	0.50%
Janus Market Consensus (and II) Index	0.50%
JPMorgan ETF Efficiente 5 Index	0.50%
J.P. Morgan Strategic Balanced Index	0.50%
Lenwood Volatility Control Index	0.50%
ML Strategic Balanced Index	0.50%
Morgan Stanley Diversified Select	0.50%
Morgan Stanley Dynamic Allocation	0.50%
Morgan Stanley Dynamic Balance	0.50%
Morgan Stanley Target Equity Balanced Index	0.50%
Deutsche Bank Momentum Asset Allocator 5.5% Volatility Control Index	0.25%
NYSE Zebra Edge	.02% on Treasury Rebalance

Cash vs Bonds

Volatility control means moving from higher to lower volatility when necessary. For many indices the low volatility component is cash or a cash equivalent, which essentially has no volatility and no or very low returns. A few vol-controlled indices use bonds as the low-vol component. These are:

Barclays U.S. Dynamic Balance II

Guggenheim BP Blended Index

PIMCO Global Optima Index

S&P 500 Daily Risk Control 2 8% Index

Transparent Value Blended Index

Using bonds as the low volatility component should result in a higher return than simply using cash, as could using a mix of bonds and low volatility equities. However, if interest rates go up, the bond element could post negative returns and impact any positive higher volatility component gains.

Excess Return

Excess returns means the yield of a predetermined benchmark is deducted from index gains.

Excess Return Based	If Yes, benchmark
Barclays All Caps Trailblazer 5 Index	Yes, 3 month LIBOR
Barclays All Caps Trailblazer Sector 5	Yes, 3 month LIBOR
BlackRock iBLD Ascenda Index	Yes, 3 month LIBOR
BNP Paribus High Dividend Plus	Yes, 3 month LIBOR
BNP Paribas Multi Asset Diversified 5 Index	Yes, roll return
Citi Flexible Allocation 6 ERI w/Participation	Yes, 3 month Core & Res
Credit Suisse CS Tactical Multi Asset Index	Yes, Fed Funds rate
Deutsche Bank Momentum Asset Allocator 5.5% Volatility Control Index	Yes, over money market
Franklin US Index	Yes, 3 month LIBOR
Goldman Sachs Dynamo Strategy Index	Yes, Fed Funds rate
Goldman Sachs Motif Aging of America Dynamic Balance	Yes, Fed Funds rate
Janus Market Consensus (and II) Index	Yes, 3 month LIBOR
JP Morgan Mozaic II	Yes, roll return
J.P. Morgan Strategic Balanced Index	Yes, 2 & 3 month LIBOR
JP Morgan U.S. Sector Rotator 5 Index	Yes, 3 month Core & Res
Merril Lynch RPM Index	Yes, 3 month LIBOR
Morgan Stanley Dynamic Allocation	Yes, Fed Funds rate
Morgan Stanley Dynamic Balance	Yes, Fed Funds rate
Morgan Stanley Global Opportunities Index	Yes, 3 month LIBOR
Morgan Stanley Target Equity Balanced Index	Yes, 3 month LIBOR
PIMCO Balanced	Yes, 3 month LIBOR
S&P Multi-Asset Risk Control (MARC) 5% Index	Yes - Fed Funds rate
S&P U.S. Retiree Spending Index	Yes, overnite LIBOR
Shiller Barclays Global Index	Yes
UBS Market Pioneers Index	Yes, 3 month LIBOR
WisdomTree Siegel Strategic Value Index	Yes

Increased Usage of Excess Return Component

The percentage of indices calculating an excess return has soared. Two years ago 36% of volcontrolled indices used an excess return factor; in 2018 48% did. The key point is an excess return component means the benchmark return is deducted from the gross return to determine the "excess" return. To get a feel for the force of this, say the 3-month LIBOR return is the benchmark and the gross index return is 6%. Three years ago the 3-month LIBOR was 0.6% so the "excess" return would have been 5.4%. In March 2019 the 3-month LIBOR was 2.6% so the "excess" return to the annuity owner would have been 3.4% – before any deductions for spreads.

Maximum Leverage/Exposure

Exposure to the equities side may exceed 100% (no leverage) when volatility is below target level.

	Maximum Leverage/Exposure
Barclays All Caps Trailblazer 5 Index	150%
Barclays All Caps Trailblazer Sector 5	150%
BNP Paribas Multi Asset Diversified 5 Index	200%
Credit Suisse CS Tactical Multi Asset Index	150%
Franklin US Index	150%
Lenwood Volatility Control Index	150%
Janus Market Consensus (and II) Index	400%
JP Morgan Mozaic II	300%
JP Morgan U.S. Sector Rotator 5 Index	220%
Merril Lynch RPM Index	150%
Morningstar Dividend Yield Focus Target Volatility 5 Index	150%
Morgan Stanley Diversified Select	150%
Morgan Stanley Dynamic Balance	150%
Morgan Stanley Global Opportunities Index	300%
Morgan Stanley Target Equity Balanced Index	180%
NYSE Zebra Edge	150%
Shiller Barclays CAPE US Sector Risk Controlled 10% USD Tot Rtn Index	150%
S&P 500 Daily Risk Control 5% Index	150%
S&P 500 Daily Risk Control 10% Index	150%
S&P 500 Low Volatility Daily Risk Control 5% Index	150%
S&P 500 Low Volatility Daily Risk Control 8% Index	150%
UBS Market Pioneers Index	150%

Volatility Target (Trigger)

In identical indices a 5.5% volatility target should provide a higher return potential than a 5% target, *ceteris paribus*; however, trying to use target rates to compare different indices doesn't work. As an example, the same option money spent to get you a 55% participation rate in a high tech index might get you 100% participation in a utilities index, but, the reason you got almost twice the participation is because the utilities were expected to produce half the return of the high tech stocks.

Under 5%	5%	5.5%	6%	7%	8%	10%
BlackRock	Barclays All	Deutsche	BNP Paribus	BlackRock	S&P 500	Shiller
iBLD Clarica	Caps	Bank CROCI	High Divid	Diversa	Low	Barclays
Index (4%)	Trailblazer 5	Sectors II USD	Plus	Volatility	Volatility	CAPE US
		5.5% VCI		Control Index	Daily Risk	Sector
Goldman	Barclays All		BlackRock		Control 8%	Risk
Sachs	blazer Sect 5	Deutsche	IBLD Ascenda	Franklin US	Index	Controlled
Momentum	514201 5000 5	Bank CROCI	Citi Flexible	Index		10% USD
Builder	Bloomberg	Sectors III	Allocation 6		S&P 500	Total
Multi-Asset	U.S. Dynamic	USD 5.5% VCI	ERI w/Parti	Lenwood	Daily Risk	Return
Class (4.5%)	Balance II			Volatility	Control 2	Index
		Deutsche	Credit Suisse	Control Index	8% Index	
PIMCO	BNP Paribas	Bank	CS Tactical			S&P 500
Tactical	Multi Asset	Momentum	Multi Asset	PIMCO		Average
Balanced	Diversified 5	Asset		Global		Daily Risk
Index	Cold Cooks	Allocator	Guggenneim	Optima Index		Control
(4.5%)	Dynamo	5.5% Volatility	Index (6 25%)	(7.5%)		10% Index
	Strategy Ind	Control Index	macx (0.2570)			
JP Morgan	otrategy ma		J.P. Morgan			S&P 500
Mozaic II	Gold Sachs		Strategic			Daily Risk
(4.2%)	Motif Aging of		Balanced			Control
	America					10% Index
			ML Strategic			
	JP Morgan ETF		Balanced			
	Efficiente 5		Margan			
	muex		Stanley Target			
	IP Morgan		Fauity			
	U.S. Sector		Balanced			
	Rotator		Index (6.5%)			
	Merril Lynch		Shiller			
	RPM Index		Barclays			
			Global Index			
	Morg Stanley		T			
	Divers Select		I ransparent			
	Morg Stanley		Index (6 25%)			
	Dynamic		macx (0.2370)			
	Allocation					

Volatility Target (Trigger) - continued

Morgan	
Stanley WisdomTree	
Dynamic Bal Siegel	
Strategic	
Morgan	
Stanley Global	
Oppor	
Morningstar	
Dividend Yield	
Focus Target	
Vol 5	
NYSE	
Expanded	
Opportunities	
NYSE Zebra	
Edge	
PIMCO	
Balanced	
S&P 500	
Dividend	
Aristocrats	
DRC 5%	
58.D E00 DBC	
S&P 500 DRC	
5% lidex	
S&P 500 Low	
Volatility DBC	
5% Index	
S&P Multi-	
Asset Risk	
Control	
(MARC) 5%	
S&P U.S.	
Retiree	
Spending	
UBS Market	
Pioneers	

Component Strategy

The traditional indices tend to use a market capitalization for their asset niche. There are volatility control indices that also do this, but other strategies are also used.

Momentum	Low Volatility	Under Valued	High Dividend/Risk Parity
Barclays All Caps Trailblazer 5 Index	BlackRock iBLD Clarica Index	Deutsche Bank CROCI	BNP Paribus High Dividend Plus
Barclays All Caps Trailblazer Sector 5	Bloomberg U.S. Dynamic Balance II	Deutsche Bank CROCI Sectors II USD 5.5%	J.P. Morgan Strategic Balanced Index ML Strategic Balanced
BlackRock Diversa Volatility Control Index	BNP Paribas Multi Asset Diversified 5	Volatility Control Index	Index (risk-parity) Morningstar Dividend
BlackRock iBLD Ascenda Index Deutsche Bank Momentum Asset	Credit Suisse CS Tactical Multi Asset	Shiller Barclays CAPE US Sector Risk Controlled 10% USD	S&P 500 Dividend Aristocrats Daily Risk Control 5%
Allocator 5.5% Volatility Control Index	Guggenheim RBP Blended Index Janus Market	Transparent Value Blended Index	
Goldman Sachs Motif Aging of America Dynamic Balance	JPMorgan ETF Efficiente 5 Index	WisdomTree Siegel Strategic Value Index	
Goldman Sachs Dynamo Strategy Index	JP Morgan Mozaic II		
Goldman Sachs Momentum Builder	Rotator		
Multi-Asset Class	Dynamic Allocation Morgan Stanley		
Lenwood Volatility Control Index	Dynamic Balance NYSE Expanded		
	opportunities index		

Component Strategy - continued

Momentum	Low Volatility	Under Valued	High Dividend/Risk Parity
Morgan Stanley Diversified Select	NYSE Zebra Edge		
	PIMCO Balanced		
Global Opportunities	S&P 500 Daily Risk		
Index	Control 5% Index		
Morgan Stanley	S&P 500 Average		
Target Equity Balanced Index	Daily Risk Control 10%		
	S&P 500 Daily Risk		
PIMCO Global Optima Index	Control 10% Index		
Shiller Barclays Global	S&P 500 Daily Risk		
Index	Control 2 8% Index		
	S&P 500 Low		
	Control 5% Index		
	S&P 500 Low		
	Volatility Daily Risk Control 8% Index		
	S&P Multi-Asset Risk		
	Control (MARC) 5% Index		
	S&P U.S. Retiree		
	UBS Market Pioneers		

Major Strategies

High Dividend – Looks for stocks with the highest supportable dividend yield and buys them, with the belief that high dividend stocks will outperform

Low Volatility – Looks for stocks with the low volatility and buys them, with the belief that low volatility stocks will outperform. This may be combined with an undervalued strategy.

Momentum – Based on a belief that when certain stocks or sectors are going up that they will continue to go up, the index jumps on board the moving securities.

Undervalued – Finds stocks that appear to be undervalued, based on digging into the company's financial using a standardized set of criteria. The most undervalued stocks are then purchased with the belief their value will be recognized.

Other Specifications

Index	Composition	
Barclays All Cans Trailblazer 5 Index	SPDRs of S&P 500 & MidCap400; iShares of Russell	
barciays All Caps Haliblazer 5 muex	2000, 20+ Year Treasury Bond, 7-10 Year Treasury	
	Bond and 1-3 Year Treasury Bon	
Bloomberg (Barclays) U.S. Dynamic Balance II	Shifts between S&P 500 & Barclays U.S. Aggregate RBI	
	Series Index.	
Barclays All Caps Trailblazer Sector 5	13 exchange-traded funds ranging from industrials to	
	tech to heath care to energy plus 3 bond ETFs and an	
	U.E. real estate ETF	
BlackRock Diversa Volatility Control Index	Up to 21 BlackRock iShares ETFs with equity, fixed	
	income & alternative exposures rebalanced monthly	
BlackRock iBLD Ascenda Index	Stock, bond, real estate ETS and gold iShares	
	Moves from equity basket (ishares ETF S&P 500,	
BlackBock iBLD Claria Index	Russell 2000, MSCI Emerging Mkts, MSCI EAFE) to the	
	fixed income basket (ishares ETF 7-10 Yr T-Baond, 3-7	
	Yr T-bond. 1-3 Yr T-bond) and back	
BNP Paribus High Dividend Plus	U.S. dividend paying stocks; the 40 with the	
	highest economic yield are included	
	3 equity futures indices, 3 bond futures indices plus 2	
BNP Paribas Multi Asset Diversified 5 Index	commodity indices from the United States, Europe	
	and Japan.	
Citi Elexible Allocation 6 ERI w/Participation	Multi-asset mix providing exposure to equities, fixed	
	income, commodities and real estate and gold.	
Credit Suisse CS Tactical Multi Asset Index	10 ETFs: equities, fixed income (credit and US	
	treasuries), commodities & real estate	
Deutsche Bank CROCI Sectors II USD 5.5% VCI	Selects from S&P 500, EuroStoxx Large Index & TOPIX	
	100	
Deutsche Bank CROCI Sectors III USD 5.5% VCI	Selects from S&P 500, EuroStoxx Large Index & TOPIX	
	100	
Deutsche Bank Momentum Asset Allocator 5.5% VCI	Equities, gold, interest rates	
Franklin US Index	Blends large cap stocks with 5 & 10 Yr US T-Notes	
	Index invests in businesses dealing with retirees	
Goldman Sachs Motif Aging of America Dynamic Balance	(nursing home REITs, Medicare insurers, healthcare	
	providers) and 10 Year U.S. Treas Rolling Futures	
	Index.	
Goldman Sachs Dynamo Strategy Index	Developed Market Equities, fixed income,	
	commodities & real estate	
Goldman Sachs Momentum Builder Multi-Asset Cl	US equities & bonds, International bonds, &	
	commodities.	

Index	Composition	
	Reallocates between the Price Return version of	
Guggenheim RBP Blended Index	Guggenheim RBP Large-Cap Defensive Index and S&P	
	2-Year U.S. Treasury Note Futures Total Return Index.	
	Quarterly selection of the 250 stocks exhibiting the	
Janus Market Consensus (and II) Index	lowest 3-month volatility among the 500 largest U.S.	
	market capitalizations	
	Mix of 12 ETFs: equities, fixed income, commodities	
JPINIOrgan ETF Efficiente 5 index	and real estate and gold	
	Selects 9 out of 15 bond, global, commodities index	
JP Morgan Mozaic II	futures contracts	
	Up to five ETFs out of 10 equity sectors & the PIMCO	
JP Morgan U.S. Sector Rotator 5 Index	Total Return Active ETF	
	S&P 500 Total Return. Low Volatility Total Return &	
Lenwood Volatility Control Index	Equal Weight Total Return indices with 2.5. and 10	
	vrs U.S. T-note Futures indices.	
	Up to seven underlying assets: S&P Low Volatility	
	Index. MSCI EAFE i Shares. MSCI Emerging Mkts i	
Merrill Lynch RPM Index	Shares, DI US Real Estate i Shares, SPDR Gold ETF, MI	
	10-Yr U.S. Treas Fut Index. ML 2-Yr Treas Fut Index	
	S&P 500 Index: Fixed Income Asset is Merrill Lynch	
ML Strategic Balanced Index	10-vr U.S. Treas Eutures Total Return Index	
Morgan Stanley Diversified Select	Global equity ETEs, real estate, foreign exchange	
Morgan Stanley Dynamic Allocation	Global Equities treasuries gold & real estate	
Margan Stanley Dynamic Palance	Global Equities, treasuries, gold & real estate	
Morgan Stanley Dynamic Balance		
Morgan Stanley Global Opportunities Index	A Broad mix of equities, short term Treasuries, bonds	
	and alternatives.	
Morgan Stanley Target Equity Balanced Index	S&P 500, DAX 30, NIKKEI 225, 5-Yr I-Note, German	
	Euro-Bond, 10-Yr Japan Bond, oll, soybeans, gold	
Morningstar Dividend Yield Focus Target Volatility 5	Highest dividend paying 75 U.S. stocks	
NYSE Expanded Opportunities Index	Allocates between 13 global equities, fixed income,	
	commodities, REITs and cash choices.	
	Each quarter removes the "hot" stocks and	
NYSE Zebra Edge Index	reallocates to "cool" stocks, but when vol is up moves	
	to 5 or 10 yr US Treas, unless rising rates, than cash	
PIMCO Balanced	Rebalances Between SPDR S&P 500 ETF, 10-Yr T-Note	
	Futures and cash	
PIMCO Global Ontima Index	SPDR S&P 500 ETF; SPDR S&P MidCap 400 ETF; Russell	
	2000 Index; MSCI EAFE; MSCI Emerging Markets	
	Index; and iShares Core U.S. Aggregate Bond ETF. All	
	equity indices are total return, including dividends.	
PIMCO Tactical Balanced Index	Allocates daily between S&P 500 Index & PIMCO	
	Synthetic Bond Index	
S&P 500 Average Daily Risk Control 10% Index	S&P 500 index & cash component accruing interest.	
S&P 500 Daily Risk Control 2 8% Index	S&P 500 & bond index	
S&P 500 Daily Risk Control 5% Index	S&P 500 index & cash component accruing interest.	
S&P 500 Daily Risk Control 10% Index	S&P 500 index & cash component accruing interest.	

Index	Composition
S&P 500 Dividend Aristocrats Daily Risk Control 5%	S&P 500 stocks that have increased their dividends for
	the last 25 years.
S& B E00 Low Volatility Daily Pick Control E% Index	S&P 500 Low Volatility Index & cash component
S&P 500 LOW VOlatility Daily Kisk Control 5% index	accruing interest.
S&P 500 Low Volatility Daily Risk Control 8% Index	S&P 500 Low Volatility Index & cash component
	accruing interest.
	Combines S&P 500 Total Return Index, S&P GSCI Gold
S&P Multi-Asset Risk Control (MARC) 5% Index	Excess Return Index & S&P 10-Year U.S. Treasury Note
	Futures Excess Return Index with a cash component.
S&PILS Retiree Spending Index	50% stocks impacted by an aging population & 25%
S&P 0.3. Retriee Spending index	US Treas Note Futures & 25% US Treas Note Futures
Shiller Barclays CAPE US Sector Risk Controlled 10%	Monthly ranking of the 10 US sectors based on
LISD Total Paturn Index	modified CAPE ratio and price momentum, equally
	allocating across top 4 ranked sectors.
	The Index uses Shiller's CAPE ratio to identify
	undervalued equities from the world's three largest
Shiller Barclays Global Index	developed markets: the United States, Eurozone and
	Japan. It then rebalances between the undervalued
	equities, bonds and commodities on a monthly basis.
Transparent Value Blended Index	Transparent Value Large-Cap Defensive Index.
	Combines Zebra Edge US Equity Index, Jim Rogers
UBS Market Pioneers Index	Global Consumer Commodities Index, Solactive 10-
	Year US Treasury Future Index
	The index evaluates 500 largest U.S. stocks for
WisdomTree Siegel Strategic Value Index	operating earnings relative to their valuation and
	selects four most undervalued market sectors.

Index	Volatility Target	Stated Service Fee	Excess Return Based	No/Low Volatility Component
Barclays All Caps Trailblazer 5 Index	5.00%	0.50%	Yes	Cash
Barclays All Caps Trailblazer Sector 5	5.00%	0.85%	Yes	3-month ICE LIBOR rate
Bloomberg (Barclays) U.S. Dynamic Balance II	5.00%	No	No	Bond
BlackRock Diversa Volatility Control Index	7.00%	No	Yes	Cash
BlackRock iBLD Ascenda Index	6.00%	No	Yes	Cash
BlackRock iBLD Claria Index	4.00%	No	No	Cash
BNP Paribus High Dividend Plus	6.00%	1.00%	Yes	Cash
BNP Paribas Multi Asset Diversified 5	5.00%	0.50%	Yes	Cash
Citi Flexible Allocation 6 ERI w/Participation	6.00%	No	Yes	Cash

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Index	Volatility	Stated Service	Excess Return	No/Low Volatility
	Target	Fee	Based	Component
Credit Suisse CS Tactical Multi Asset	6.00%	No	Yes	Cash
Index				
Deutsche Bank CROCI Sectors II USD	5.50%	No	No	Cash
5.5% VCI				
Deutsche Bank CROCI Sectors III USD	5.50%	No	No	Cash
5.5% VCI				
Deutsche Bank Momentum Asset	5.50%	0.25%	Yes	Cash
Allocator 5.5% VCI				
Franklin US Index	7.00%	No	Yes	Cash
Goldman Sachs Motif Aging of America	5.00%	0.75%	Yes	Cash
Dynamic Balance				
Goldman Sachs Dynamo Strategy Index	5.00%	0.50%	Yes	Cash
Goldman Sachs Momentum Builder	4.50%	0.50%	No	Cash
Multi-Asset Cl				
Guggenheim RBP Blended Index	6.25%	No	No	Bond
Janus Market Consensus (and II) Index	20%. Total	0.50%	Yes	3-month LIBOR rate
	return uses			
	a 4% month			
	index cap.			
JPMorgan ETF Efficiente 5 Index	5.00%	0.50%	No	Cash
JP Morgan Mozaic II	4.20%	No	Yes	Cash
J.P. Morgan Strategic Balanced Index	6.00%	0.50%	Yes	2-month and 3-
				month USD LIBOR
				rates
JP Morgan U.S. Sector Rotator 5 Index	5.00%	No	Yes	Cash
Lenwood Volatility Control Index	7.00%	0.50%	No	Cash
Merril Lynch RPM Index	5.00%	No	Yes	Cash
ML Strategic Balanced Index	5.00%	0.50%	No	Cash
Morgan Stanley Diversified Select	5.00%	0.50%	Yes	Cash
Morgan Stanley Dynamic Allocation	5.00%	0.50%	Yes	Cash
Morgan Stanley Dynamic Balance	5.00%	0.50%	Yes	Cash
Morgan Stanley Global Opportunities	5.00%	No	Yes	Cash
Index				
Margan Stanlay Targat Equity Dalanced	6.50%	0.50%	Yes	Cash
Index	0.0070	0.0070		Cush
Morningstor Dividend Vield Feaus	E 00%	No	No	Cash
Target Velatility E	5.00%	NO	NO	Cash
NVSE Expanded Opportunities Index	F 00%	No	No	Cach
NYSE Expanded Opportunities Index	5.00%	NO	NO	Cash
NYSE Zebra Edge Index	5.00%	NO	NO	Cash Darda & Cash
	7.50%		NO	
PINCO Balanced	5.00%		res	Cash
	4.50%			Cash
S&P 500 Average Daily Risk Control	10.00%	NO	NO	Cash
TO% INDEX				

Index	Volatility	Stated Service	Excess Return	No/Low Volatility
Index	Target	Fee	Based	Component
S&P 500 Daily Risk Control 2 8% Index	8.00%	No	No	Bond
S&P 500 Daily Risk Control 5% Index	5.00%	No	No	Cash
S&P 500 Daily Risk Control 10% Index	10.00%	No	No	Cash
S&P 500 Dividend Aristocrats Daily Risk	5.00%	No	No	Cash
Control 5%				
S&P 500 Dividend Aristocrats Daily Risk	8.00%	No	No	Cash
Control 8%				
S&P 500 Low Volatility Daily Risk	5.00%	No	No	Cash
Control 5% Index				
S&P 500 Low Volatility Daily Risk	8.00%	No	No	Cash
Control 8% Index				
S&P Multi-Asset Risk Control (MARC)	5.00%		Yes	Cash
5% Index				
S&P U.S. Retiree Spending Index	5.00%	No	No	Cash
Shiller Barclays CAPE US Sector Risk	10.00%	No	No	Cash
Controlled 10% USD Total Return Index				
Shiller Barclays Global Index	6.00%	No	Yes	Cash
Transparent Value Blended Index	6.25%	No	No	2 Yr T-Notes
UBS Market Pioneers Index	5.00%	0.75%	Yes	Cash
WisdomTree Siegel Strategic Value	6.00%	No	Yes	Cash

Index	Index Strategy	Maximum	Index Live
Index	muex strategy	Leverage/Exposure	Date
Barclays All Caps Trailblazer 5 Index	Volatility	150%	9/30/2016
Barclays All Caps Trailblazer Sector 5	Volatility	150%	7/5/2016
Barclays U.S. Dynamic Balance II	Volatility	100%	4/15/2015
BlackRock Diversa Volatility Control Index	Momentum	100%	10/15/2015
BlackRock iBLD Ascenda Index	Momentum	100%	9/6/2018
BlackRock iBLD Claria Index	Volatility	100%	1/19/2018
BNP Paribus High Dividend Plus	Dividend	100%	7/28/2014
BNP Paribas Multi Asset Diversified 5	Volatility	200%	1/25/2016
Citi Flexible Allocation 6 ERI w/Particip	Volatility	100%	7/28/2014
Credit Suisse CS Tactical Multi Asset In	Volatility	150%	8/25/2014
Deutsche Bk CROCI Sect II USD 5.5%	Under Valued	100%	3/13/2015
Deutsche Bk CROCI Sect III USD 5.5%	Under Valued	100%	3/13/2015
Deutsche Bank Momentum Asset Allocator 5.5% VCI	Momentum	100%	5/1/2015
Franklin US Index	Value	150%	11/13/2017
Goldman Sachs Motif Aging of America Dynamic Balance	Momentum	150%	8/15/2018

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Index	Index Strategy	Maximum	Index Live
Coldman Sachs Dunama Stratagy Index	Momontum	Leverage/Exposure	Date
Goldman Sachs Momentum Builder	Womentum	100%	0/14/2015
Multi-Asset Cl	Momentum	100%	7/25/2014
Janus Market Consensus Index	Volatility	400%	5/16/2017
JPMorgan ETF Efficiente 5 (and II) Index	Volatility	100%	10/29/2010
JP Morgan Mozaic II	Volatility	300%	12/28/2016
J.P. Morgan Strategic Balanced Index	Dividend	100%	7/17/2017
JP Morgan U.S. Sector Rotator 5 Index	Volatility	220%	12/23/2016
Lenwood Volatility Control Index	Momentum	150%	5/28/2014
Merril Lynch RPM Index	Volatility	150%	3/1/2016
ML Strategic Balanced Index	Risk-Parity	150%	8/12/2014
Morgan Stanley Diversified Select	Momentum	150%	3/31/2015
Morgan Stanley Dynamic Allocation	Momentum	100%	9/18/2013
Morgan Stanley Dynamic Balance	Volatility	150%	7/1/2015
Morgan Stanley Global Opportunities Index	Momentum	300%	7/17/2017
Morgan Stanley Target Equity Balanced Index	Momentum	180%	8/24/2017
Morningstar Dividend Yield Focus Target Volatility 5	Volatility	200%	3/16/2016
NYSE Expanded Opportunities Index	Volatility	100%	10/19/2018
NYSE Zebra Edge	Volatility & Popularity	150%	10/1/2016
PIMCO Balanced	Volatility	100%	11/30/2017
PIMCO Global Optima Index	Momentum	100%	10/9/2017
PIMCO Tactical Balanced Index	Volatility	100%	12/7/2015
S&P 500 Average DRC 10% Index	Volatility	100%	4/13/2013
S&P 500 Daily Risk Control 2 8% Index	Volatility	100%	6/3/2011
S&P 500 Daily Risk Control 5% Index	Volatility	150%	9/10/2009
S&P 500 Daily Risk Control 10% Index	Volatility	150%	5/13/2009
S&P 500 Dividend Aristocrats DRC 5%	Dividend	100%	8/25/2010
S&P 500 Low Volatility DRC 5% Index	Volatility	150%	8/31/2011
S&P 500 Low Volatility DRC 8% Index	Volatility	150%	8/31/2011
S&P Multi-Asset Risk Control (MARC) 5% Index	Volatility	100%	3/27/2017
S&P U.S. Retiree Spending Index	Volatility	100%	9/26/2016
Shiller Barclays CAPE US Sector Risk Controlled 10% USD Total Return Index	Momentum	150%	2/6/2014
Shiller Barclays Global Index	Momentum	100%	1/31/2019
Transparent Value Blended Index	Under Valued	100%	3/20/2013
UBS Market Pioneers Index	Volatility & Popularity	150%	11/11/2016
WisdomTree Siegel Strategic Value	Under Valued	100%	?

Index	Crediting Method	Carrier(s) Offering
Barclays All Caps Trailblazer 5 Index	1 Yr P-rate	Securian
Barclays All Caps Trailblazer Sector 5	2 Yr w/Spread	F&G
Bloomberg (Barclays) U.S. Dynamic Balance II	1 Yr w/Spread	Allianz
BlackRock Diversa Volatility Control Index	2 Yr wSpread	Global Atlantic
BlackRock iBLD Ascenda Index	2 Yr w/Spread	Lincoln Financial
BlackRock iBLD Claria Index	1 Yr w/P-rate	Allianz
BNP Paribus High Dividend Plus	1 Yr w/Spread, 2 Yr w/Spread	Security Benefit
BNP Paribas Multi Asset Diversified 5	2 Yr w/Spread	Athene
Citi Flexible Allocation 6 ERI w/Participation	2Yr P-rate	Protective
Credit Suisse CS Tactical Multi Asset Index	1 Yr w/Spread, 2 Yr w/Spread	Phoenix
Deutsche Bank CROCI Sectors II USD 5.5% VCI	1 Yr w/Spread, 2 Yr w/Spread	Guggenheim
Deutsche Bank CROCI Sectors III USD 5.5% VCI	1 Yr w/Spread	Delaware
Deutsche Bank Momentum Asset Allocator 5.5% VCI	1 Yr P-rate, 2 Yr P-rate	Delaware
Franklin US Index	2 Yr w/Spread	Global Atlantic
Goldman Sachs Motif Aging of America Dynamic Balance	1 or 3 Yr P-rate	Sentinel Security
Goldman Sachs Dynamo Strategy Index	1 Yr P-rate, 2 Yr P-rate	EquiTrust
Goldman Sachs Momentum Builder Multi-Asset Cl	3 Yr P-rate	Integrity, Lafayette, Columbus
Guggenheim RBP Blended Index	5 Yr P-rate	Security Benefit
Janus Market Consensus (and II) Index	2 Yr Pt-to-Pt w/ p-rate	Athene
JPMorgan ETF Efficiente 5 Index	1 Yr w/Spread	Symetra
JP Morgan Mozaic II	3 Yr p-rate or p-rate less spread	Nationwide
J.P. Morgan Strategic Balanced Index	1,2 or 3 yr pt-to-pt w/participation rate	Integrity
JP Morgan U.S. Sector Rotator 5 Index	1 Yr w/Spread	Standard Life
Lenwood Volatility Control Index	2 Yr w/Spread	Athene
Merril Lynch RPM Index	2 Yr P-rate w or w/o Fixed Blend	Athene
ML Strategic Balanced Index	1 Yr P-rate, 2 Yr P-rate	American General
Morgan Stanley Diversified Select	1 Yr P-rate, 2 Yr P-rate. 5 Te P-rate	Guggenheim
Morgan Stanley Dynamic Allocation	2 Yr w/Spread	Security Benefit
Morgan Stanley Dynamic Balance	1 Yr or 3 Yr w/Spread	Midland, North American
Morgan Stanley Global Opportunities Index	1 Yr P-rate	Delaware
Morgan Stanley Target Equity Balanced Index	2 Yr w/Spread	Americo
Morningstar Dividend Yield Focus Target Volatility 5	2 Yr w/Spread	Athene
NYSE Expanded Opportunities Index	1 Yr P-rate	Transamerica
NYSE Zebra Edge	3 Yr p-rate less spread or p-rate index/ fixed blend	Nationwide

Index	Crediting Method	Carrier(s) Offering
PIMCO Balanced	1 Yr P-rate	Global Atlantic
PIMCO Global Optima Index	2 Yr Pt-toPt w/ spread	AIG
PIMCO Tactical Balanced Index	1 Yr w/Spread	Allianz
S&P 500 Average Daily Risk Control 10% Index	2 Yr w/Spread	Americo
S&P 500 Daily Risk Control 2 8% Index	2 Yr P-rate	Athene
S&P 500 Daily Risk Control 5% Index	1 Yr w/Spread (LFG). 5 Yr w/spread (Symetra)	Symetra, Lincoln Financial
S&P 500 Daily Risk Control 10% Index	5 Yr w/spread	Athene
S&P 500 Dividend Aristocrats Daily Risk Control 5%	1 Yr w/Spread	American Equity
S&P 500 Low Volatility Daily Risk Control 5% Index	1 Yr w/Spread	North American
S&P 500 Low Volatility Daily Risk Control 8% Index	2 Yr P-rate	North American, Midland
S&P Multi-Asset Risk Control (MARC) 5% Index	1 & 2 Yr Pt-to-Pt less spread	Midland National, North American, Security Benefit
S&P U.S. Retiree Spending Index	1 Yr P-rate	Great American
Shiller Barclays CAPE US Sector Risk Controlled 10% USD TRI	Index/Fix Blend	Athene
Shiller Barclays Global Index	1 Yr w/Spread	Athene
Transparent Value Blended Index	1 Yr w/Spread	Security Benefit
UBS Market Pioneers Index	1 & 2 Yr w/Spread	Security Benefit
WisdomTree Siegel Strategic Value	1 Yr P-rate	Athene

Returns

The basic VCI concept uses the same logic as averaging or monthly cap methods – higher volatility should soften maximum gains – and markets tend to have regular volatile periods. Higher volatility essentially takes the VCI out of the stock market and moves it into cash. Although higher volatility is more extreme during market dips, it also increases during times of exuberance. Thus, a crediting method that backs out of the market during high volatility times should offer protection for the person selling the hedge from paying out very high gains.

2016 was a good example of how this played out. Even though the S&P 500 finished up 9.5%, the average return for VCIs, before spreads, was 3.5% with most fixed index annuity VCIs crediting 0% to 1% interest; the high for one-year periods was around 4.75%.

2017 played a different hand. First, stock market returns were higher with the S&P 500 reporting a 19.4% gain. The other big factor is volatility was largely absent. The average return for VCIs, before spreads, was 12.6%. Net credited VCI interest was generally in the 7% to 9% range, but many FIA VCIs posted double digit returns in the mid-teens. 2017 was a very nice year for volatility control index participants.

Gross VCI Gains/Losses Year Ending 12/31/2017 (Purple); 12/31/2018 (Gold)



2018 was a different story. The average FIA vol-controlled index lost 3.3%, before deducting fees or spreads. The top performing index was Shiller Barclays CAPE US Sector Risk Controlled 10% USD Total Return Index which gained 1.6%. The top performing index group was Standard & Poor's where half of their indices finished higher, albeit barely.

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This chart shows the average gross return (before spreads or caps) of the volatility control indices used in fixed index annuities (the black line) and the range of returns of the different indices (purple) for the last twelve month period ending at the conclusion of each month – although some indices did record losses the chart has zero as a minimum since fixed index annuities do not recognize losses. To wit, for the 12 month periods from 28 February 2017 to 28 February 2018 the average VCI return was 8.4% and VCI returns ranged from zero to 24% depending upon the index.



FIA Vol-Controlled Indices - Last 12 Months

Black Line - Average Last 12 Month Return





Volatility

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As measured by the VIX, average long-term volatility is around 22. By contrast in 2017, the highest VIX value was 16 and the average was 11. What we witnessed in 2017 was a strong market with very low volatility, meaning volatility control indices spent most of the time in equities.

By contrast, in 2018 the VIX spiked to panicky levels in February and remained higher than normal until the middle of spring. Volatility calmed down through the summer – but still at a much higher average level than in the previous year – and then jumped again in the fall, to end up the year, once again, at levels indicating deep concern. The average VIX for 2018 was 17, but 21 in the 4th quarter.

Concerns

I do have a fresh concern and it has to do with excess returns. While deducting the risk free rate from the gross return is justifiable, I wonder how many consumers understand that in this interest rate environment that 2% or more is subtracted from their index gross return before participation rates, spreads or caps are applied. I further wonder what their reaction will be if the benchmarks rates continue to increase due to rising interest rates. I'm also concerned that the new non-vol-controlled indices I have seen not only use a risk free benchmark, but fail to disclose exactly how the benchmark is calculated.

Future Hedging

Many of the companies offering the index also provide the carrier the hedging for the index – some require that they be the exclusive hedging source, at least initially. Although a broadly used index such as the S&P 500 has multiple potential hedging sources, a little used index may only have one bidder. This lessens the negotiating power of the carrier and could result in higher costs in future years than might be experienced when using a broader index that offers multiple potential hedging partners.

Backcasting/Hypotheticals

Many of the volatility control indices have an actual track record measured in months rather than years and were designed based on how well they might have performed over the last eight to ten years. In and of itself the fact that these indices have little actual history is less of a concern than believing that past returns – whether real or hypothetical – predict future returns.

Comparisons

It is extremely difficult to assess the potential interest that may be earned when comparing two or more vol-controlled indices. You can't compare the indices by looking at relative spreads, participation rates, or volatility target rates. You can't compare them by looking at their hypothetical returns because many of these indices were created to perform well over a very specific and unique period of market history. Since you can't do a quantitative comparison, you are left with a qualitative one. What this means is examining the index and the index provider and determining whether you are comfortable with the concept and the ability of the index to perform.

Market Conduct: Realistic returns

If a volatility controlled indices does not have a stated ceiling on the amount of interest that might be earned, this may create the impression that potential interest is unlimited. However, the reason for using volatility controlled indices is to provide a way of limiting interest to reduce hedging costs. Their very design limits interest. Due to this design it can create unrealistic expectations if the index is referred to as uncapped or unlimited, because the design effectively works as a governor on the amount of the return generated. Although it is often technically true that one gets "all of index upside less a spread" the consumer needs to understand that thus upside does have limitations.

Summary

- FIAs with volatility-controlled indices are fixed annuities. Section 989J of Dodd-Frank simplified the securities exemption by saying as long as the annuity satisfies state standard nonforfeiture laws and did not use a separate account (i.e. was not a variable annuity) it was a fixed annuity. The vol-controlled indices of FIAs meet the interest requirements of Dodd-Frank and the intent of the original Rule 151 in that they still provide a minimum guarantee, still protect premium and credited interest from market risk, and still credit interest annually. On the basis of how they credit interest these are still fixed annuities.
- Managed volatility permits higher nominal participation. An index using managed volatility may offer a 100% participation rate without a stated cap. However, nominal may not be the same thing as effective participation. Although the index with controlled volatility may offer a 100% rate on this index methodology, it may effectively only give a portion of the total underlying index gain.
- Vol-controlled indices may, at times, produce significantly higher credited interest than existing methods and may, at times, produce lower credited interest than existing methods.
- Vol-controlled indices for FIAs are a new response applied to deal with a prolonged low interest rate environment. These indices generally have a short or no track records.
- Vol-controlled indices for FIAs are a creative way to provide more value to the consumer in the current low interest rate environment by effectively raising index participation. The concept is valid.
- 1. Advantage Insurance Carrier Bond Yield Composite Index, Advantage Compendium. 2015
- 2. Simpa Baiye. Hybrid Indices in Fixed Indexed Annuities: The New Wave. Product Matters. June 2015, p 1,.4-7

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is led by Jack Marrion, providing research and consulting services to financial firms in a variety of areas. He has conducted a broad scope of research ranging from the behavioral economic reasons why consumers buy or don't buy financial products to future industry impact models.

His insights on the annuity and retirement income world have appeared in hundreds of publications including *Best's Review*, *Business Week, The New York Times*, and *The Wall Street Journal*. He has been asked to address the National Association of Insurance Commissioners on several occasions. Dr. Marrion has a BBA from the University of Iowa, an MBA from the University of Missouri and his doctorate from Webster University in the area of cognitive bias in decision-making formed a new paradigm in the development of retirement income products. Neither Jack Marrion nor Advantage Compendium sell nor endorse any financial product.