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Stable Value Database Executive Summary

6/30/2018 Quarterly Update



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INTRODUCTION

About Blue Prairie Group

Blue Prairie Group is an independent, fee-only investment retirement and investment consulting firm based in Chicago. We work with scores of organizations and individuals across the United States through our three core practice areas:

- ERISA
- Foundations & Endowments
- Wealth Management

For more information about the firm and its services, please visit the website at www.blueprairiegroup.com
For questions about this database update, please contact Matt Gnabasik, Managing Director at matt@blueprairiegroup.com or Constantine Mulligan, Managing Partner and Director of Research at constantine@blueprairiegroup.com

About The Data Contained in This Report

The data found in this report comes from survey responses from leading stable value providers. As survey responses are received and compiled, the aggregate metrics will change, and the report will be updated to reflect the most current information. We publish this update on a quarterly basis to ultimately provide a snapshot of the stable value asset class.

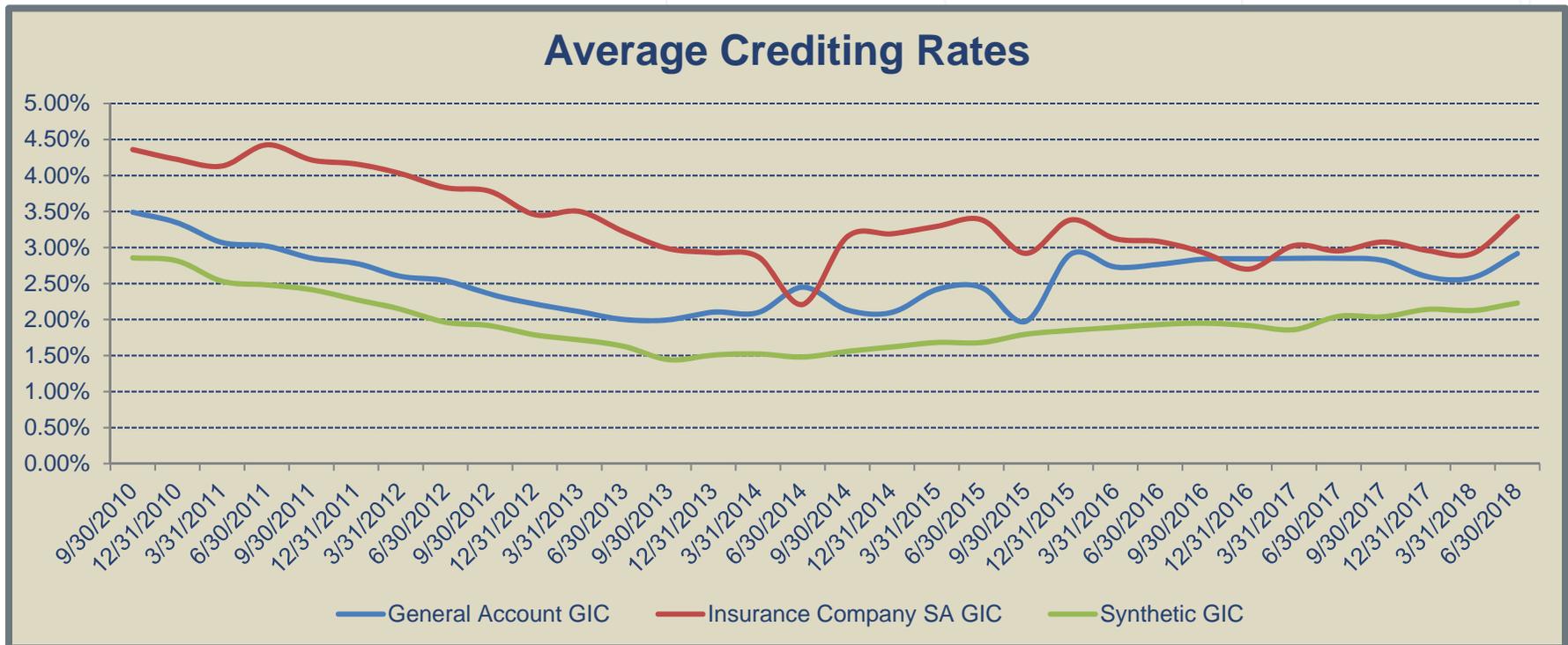
While the information in this report comprises only a small portion of the all data collected each quarter, more complete information on the stable value asset class may be acquired by contacting the persons named above.



CREDITING RATES

Crediting Rates Continue Healthier Trend

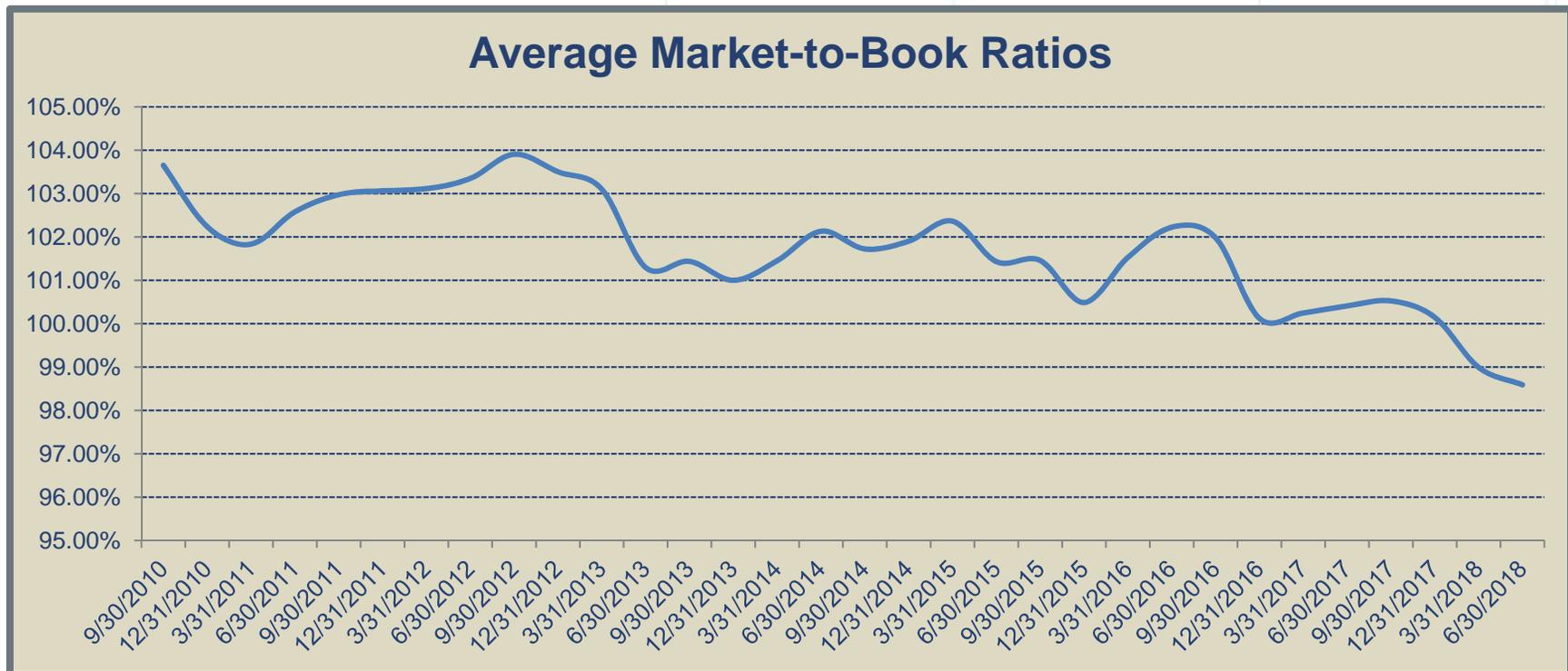
- Across each stable value product type, crediting rates edged higher slightly higher for the second consecutive quarter, translating into elevated total returns (after fees) relative to other capital preservation investment options.
- Across the averages of the underlying stable value products, sector positioning contributed here, as cash allocations have improved returns relative to the last few years, and increases into corporate debt has also buoyed fixed income returns.



MARKET-TO-BOOK RATIOS

Market-To-Book Ratios Decline Further

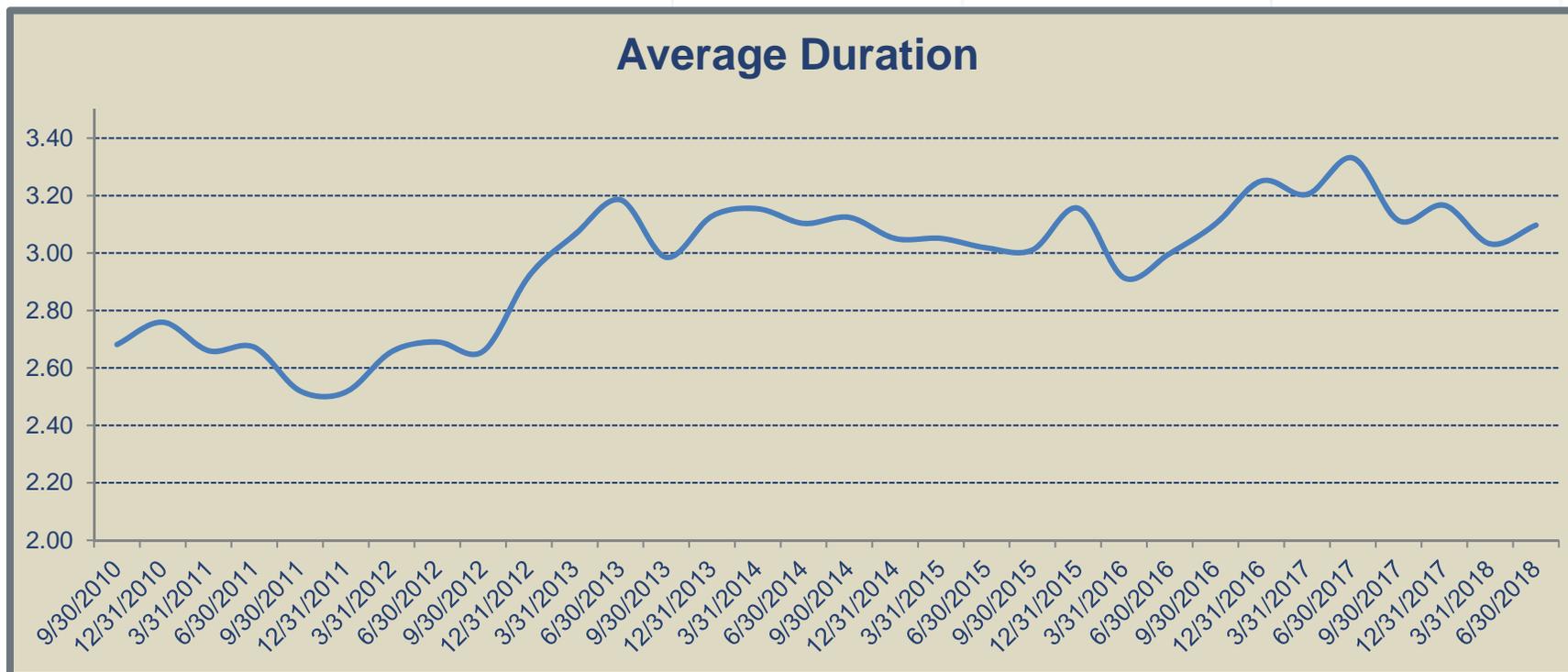
- The average market-to-book ratio across product types continued the downward trend to an average of 98.59% (down from 98.92% in Q1 2018) in the second quarter of 2018, mainly driven by the pooled synthetic GIC product types. The 5-year average now stands at 101.57%.
- The declining trend in the average Market-to-Book ratios can be attributed to the rising interest rate environment experienced more recently as fixed income returns were generally negative on the quarter. This hindered underlying fixed income portfolios that drive commingled stable value funds.



DURATION

Portfolio Durations Remain Muted

- Managers continue to find greater opportunities at the shorter ends of the yield curve given the decreases over the past few quarters. The average duration actually went upward, but not by a materially amount.
- The yield curve continued to flatten in the second quarter of 2018, as short-term rates continued to rise to a greater degree than those on the long end of the curve.

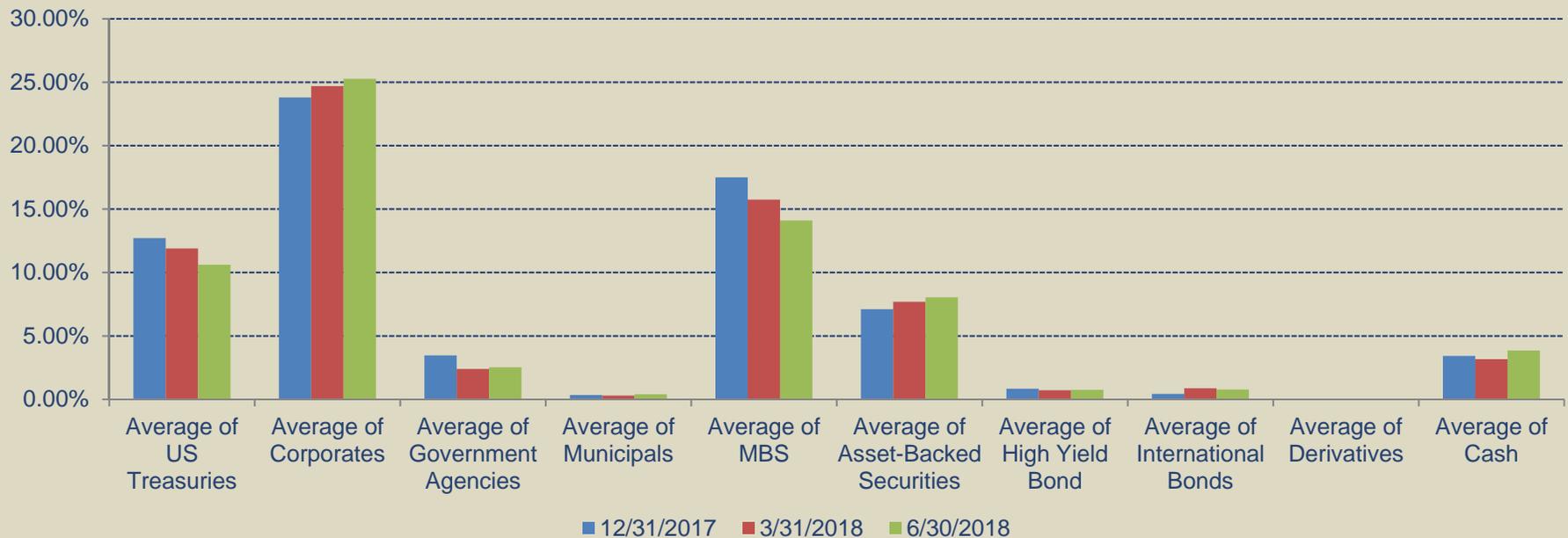


SECTOR ALLOCATIONS

Sector Shifts Taking Shape Among Stable Value Managers

- While the last few quarters have been relatively muted, we've started seeing a minor shift in portfolio positioning. As cash/cash equivalents have started producing more competitive total returns, the allocation average increased slightly on the quarter.
- Corporate debt also has experienced a steady trend upwards, while spread product like MBS has seen a decline. The vast majority of other sectors did not experience material shifts in sector allocation, though positioning is worth monitoring going forward.

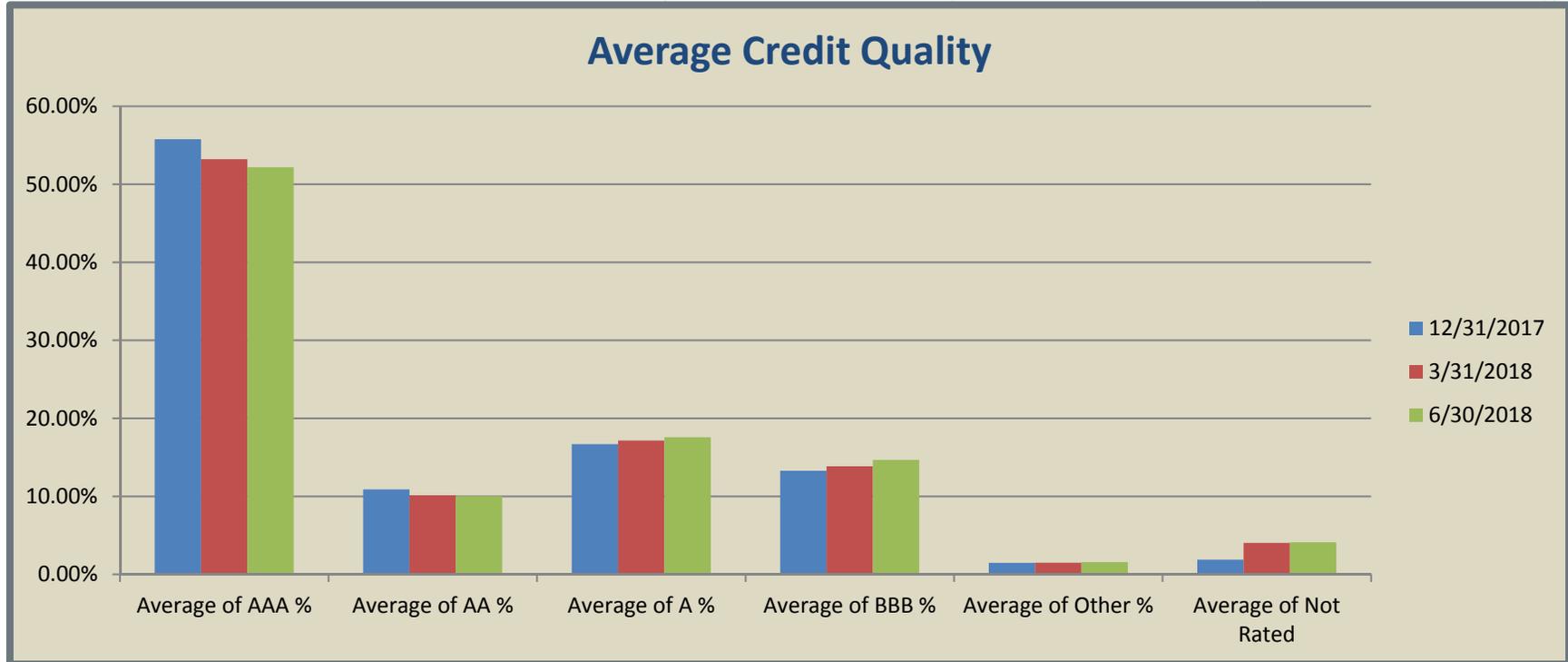
Average Sector Allocations



CREDIT QUALITY

Search For Yield Continues

- There were not any dramatic shifts in the average credit quality reported by the products that comprise the BPG Stable Value Database. However, there has been a small increase towards the lower-end of the investment grade spectrum, as manager continually search for yield in a yield-starved environment.
- That being said, credit quality averages of both stable value portfolios and the accompanying wrap providers has remained consistent throughout.



PRODUCT LISTING

Below is a list of representative products that typically submit data to BPG's stable value database:

Fund Name	Reported AUM	Fund Name	Reported AUM
BMO Stable Value Fund	\$1,184,998,624	Minnesota Life Guaranteed Return Account	Assets Not Reported
Columbia Trust Stable Government Fund	\$830,000,000	Morley Capital Management	\$7,633,304,220
Columbia Trust Stable Income Fund	\$954,000,000	Nationwide Fixed Account	Not Reported
Federated Capital Preservation Trust	\$4,078,802,199	New York Life Anchor Account	\$4,510,000,000
FFTW Income Plus Fund**	\$0	New York Life Guaranteed Interest Account	\$4,660,000,000
Fidelity Advisor Stable Value Class I	\$1,500,000,000	PIMCO Stable Value	\$384,759,027
Fidelity MIP I Stable Value Fund	\$6,600,000,000	Principal Stable Value	\$4,310,805,278
Fidelity MIP II Stable Value Fund	\$17,300,000,000	Prudential Guaranteed Income	\$20,123,200,000
Galliard Managed Income Fund	\$3,236,091,827	Prudential Guaranteed Deposit Fund	\$3,972,500,000
Galliard Separate Account Composite	\$44,635,644,268	Prudential Guaranteed Long-Term Fund	\$20,123,200,000
Goldman Sachs Stable Value	\$571,878,970	Prudential Preservation Separate Account Fund	\$1,050,000,000
Goldman Sachs Stable Value Separate Account Composite	\$25,102,641,335	Prudential Stable Value Fund	\$1,276,970,000
Great West Key Guaranteed Portfolio Fund	Assets Not Reported	Putnam Stable Value	\$6,489,946,151
ICMA Vantage Trust Plus Fund	\$9,854,000,000	Reliance Trust New York Life Anchor Account	\$4,510,000,000
Invesco Stable Value Trust	\$4,332,480,991	The Standard Stable Asset Income Fund	Not Reported
John Hancock GIA 10 Years	Assets Not Reported	Standish Separate Account Composite	\$14,443,521,182
John Hancock GIA 5 Years	Assets Not Reported	TIAA-CREF*	\$1,102,000,000
John Hancock GIA 3 Years	Assets Not Reported	T. Rowe Price Stable Value Common Trust	\$15,184,200,000
John Hancock Stable Value Fund	\$2,102,036,734	TFLIC Guaranteed Pooled Fund	\$2,916,000,000
JPMorgan Stable Asset Income Fund	\$1,181,211,303	Transamerica Stable Pooled Fund	\$1,313,600,000
Lincoln Stable Value Account	\$18,000,000,000	Vanguard Retirement Trust	\$19,519,678,112
MassMutual Core SAGIC	\$2,198,310,742	Voya Government Securities	Not Reported
MassMutual Core SAGIC II	\$1,365,091,649	Voya Intermediate Aggregate	Not Reported
MassMutual Diversified SAGIC I	\$2,264,256,302	Voya Quality Fund	Not Reported
MassMutual Diversified SAGIC II	\$2,745,784,353	Private Client Separate Account	\$318,200,000
Mellon Stable Value Fund	\$1,191,587,719	Wells Fargo Stable Return	\$26,725,148,441
		Total:	\$311,795,849,427

*TIAA no longer breaks out total assets by contract including GRA, GSRA, RA, RC, RCP, SVA, and SRA

**Product in process of liquidation



GLOSSARY OF TERMS

Book or Contract Value – For a stable value investment, the value of deposits, plus accumulated interest, minus withdrawals. Unlike market value, book value is not subject to market fluctuations.

Book Value Accounting – The method by which the valuation of a stable value investment is reported. Book Value isolates the plan from the volatility of market fluctuations caused by movements in interest rate or changes in credit ratings.

Cash Flow Risk – The risk that participant-directed contributions, withdrawals and net transfers have a financial impact on the issuer of a fixed rate contract or on the crediting rate of an experience-rated contract. Also, the risk that cash flows are different than expected.

Commingled or Collective Fund – A fund that combines assets from different and unaffiliated plans into one large group to achieve economies of scale. These funds may also be referred to as pooled funds, bank pooled funds, or separate accounts.

Competing Fund – Another investment option in addition to stable value within a defined contribution plan that offers relative principal stability, such as a money market or GIC fund.

Crediting Rate – The interest rate credited on the book value of a benefit responsive contract, expressed as an “effective annual yield.” As determined by the contract, the crediting rate may remain fixed for the term of the transaction or may be reset at predetermined intervals. Occasionally, the term crediting rate is applied to the annualized yield of a stable value fund.

Credit (or Default) Risk – The risk that an investment will default, i.e., the borrower (the bond or contract issuer) will not pay the interest and principal as scheduled.

Duration – A metric that measures the sensitivity of the price of a fixed income security to a change in interest rates. Duration is expressed in years. Interest rates and fixed income products have an inverse relationship, i.e. rising rates mean falling prices. Higher duration indicates more sensitivity to interest rates and a larger movement in prices.



GLOSSARY OF TERMS

Equity Wash – A provision in a stable value product that any transfers made from the stable value fund must be directed to an equity fund or short-term option of the plan for a stated period of time (usually 90 days) before the transferred funds may be directed to any other plan-provided competing fixed income fund (such as a money market fund). This provision is intended to reduce interest rate arbitrage by plan participants, thus permitting stable value contract issuers to underwrite the plan without excessive risk exposure.

General Account – The primary part of a life insurance company's balance sheet containing the capital and surplus and reserves for guaranteed liabilities. Almost all traditional GICs are backed by the issuer's General Account.

Guaranteed Rate – The rate of return under a guaranteed investment contract for a stated period of time.

Guaranteed Investment Contract (GIC) – A group annuity contract that pays a specified rate of return for a specific period of time, offers book value accounting, typically pays benefits to plan participants, and provides annuities upon request. These contracts are also known as Guaranteed Interest Contracts or Guaranteed Insurance Contracts.

Investment Guidelines – Guidelines established between a plan sponsor or trustee and an investment manager which establish the investment parameters and risk exposures that the investment manager may assume in the plan's account. In fixed income portfolios, the guidelines typically address permissible asset classes and/or securities, sector allocation limits, issuer diversification, and minimum credit quality constraints.

Investment Manager – A fiduciary (other than a trustee or named fiduciary under Sec. 402 of the IRC) who has the power to manage, acquire or dispose of certain plan assets and who has acknowledged in writing that he is a fiduciary with respect to the plan.

Market Value – The amount an investment (bond, mortgage, stock or fund share) would be worth if it were sold at a specific time.

Market Value Adjustments – More properly referred to as Surrender Value Adjustments, this is the amount deducted from or added to a stable value product when it is terminated prior to its stated maturity date.



GLOSSARY OF TERMS

Net Crediting Rate – The interest rate on the book value balance of a stable value product after adjusting for expenses and any special provisions of the product, expressed as an annual effective yield.

Separate Account GIC – A separate account GIC is exactly like a traditional GIC, but instead of the participant falling into the general account of the insurance company, the participant has an exclusive account containing only that participant's assets. In some circumstances, this allows the participant to better control the crediting rate and market-to-book ratio of the plan. Separate accounts are also considered greater bankrupt remote, meaning in the case of insurance company bankruptcy, a separate account GIC would theoretically have higher claim than traditional GIC participants.

Synthetic GIC – Instead of transferring assets to an insurance company, synthetic GICs are offered by investment companies. These contracts allow participants to retain possession of the assets in the GIC and pay the investment manager a fee. To retain the safety of assets, investment manager contract with insurance companies to “wrap” the assets, or insure them. While participants now pay fees to both the investment manager and the wrap provider(s), the participants also receive a crediting rate tied directly to their performance. In the traditional GIC, an insurance company may take assets, invest them, and make 5%, but only return 3% as it is the maximum rate of return specified in the contract. Participants in the synthetic GIC would not be limited to a fixed range of return with a synthetic GIC.

Synthetic Separate Account GIC – The synthetic separate account GIC is the same as a separate account GIC, except it uses the synthetic structure: participants own assets, the plan is administered by an investment manager, and the assets are wrapped by insurance companies.

Traditional (or General Account) GIC – An insurance contract issued by an insurance company that guarantees a rate of return, often between some range of values (e.g. between 1% and 3% per year), in return for an investment in the product. When a participant enters a traditional GIC, the assets are owned by the insurance company and the guaranteed rate of return is provided to the participant. When a participant decides to leave, the principal is returned as well. In the event of bankruptcy, all participants in the traditional GIC have the same level of claim on the remaining assets.



QUESTIONS TO ASK YOUR STABLE VALUE PROVIDER

- ❖ What is the fund's current market-to-book value ratio?
- ❖ What is the fund's current crediting rate and how does it compare to the rates paid by other stable value funds, and the yield earned on money market funds?
- ❖ What is the nature of any significant cash flows in and out of the fund over the last three years?
- ❖ Which financial institutions are wrapping the fund, or the bonds owned by the fund?
- ❖ What are the most recent credit ratings and outlooks on these companies from the credit rating agencies?
- ❖ Do the book value contracts allow the wrapper to terminate the contract at market value if the plan sponsor or investment manager experiences a change of control of over 50% of the ownership of the entity?
- ❖ If the plan sponsor decides to terminate a plan's investment in a stable value fund, how much time must pass before the plan can receive its funds at book value? What other termination provisions exist?
- ❖ What is the provider's definition of "competing fund" and what are the restrictions placed on participants regarding the use of an "equity wash" provision or other mechanism that may restrict liquidity or a participant's investment options?
- ❖ What are the high-level risk characteristics of the underlying fixed income portfolio?
- ❖ What are the fund's investment guidelines for the appropriate levels of interest rate risk (duration) and credit risk for the fixed income portfolio?
- ❖ Who is/are the underlying fixed income portfolio manager(s)?
- ❖ Does the manager provide communication tools and literature to participants about the stable value fund?
- ❖ What are the fund's fees?



PRODUCT TYPE COMPARISON

	General Account GIC	Insurance Company Separate Account GIC	Pooled, Multi-Wrapper Fund (Synthetic GIC)
Who holds legal title to the assets?	Insurance company's general account	Insurance company's separate account	Pooled fund manager
What type of principal protection is offered?	Absent an insurance company default, principal is guaranteed	Absent an insurance company default, principal is guaranteed	Principal protection is guaranteed against market value fluctuation, but not against security defaults or impairments
Who manages the assets?	Insurance Company	Insurance Company	One or multiple fixed income managers. Can also contain other types of GICs
Who provides the guarantee?	Insurance Company	Insurance Company	Multiple insurance companies (wrap contracts)
What are the risks of not receiving a book value payout?	Plan initiated events, non-compliance with contract terms, or regulatory changes could negate the wrap contract.	Plan initiated events, non-compliance with contract terms, or regulatory changes could negate the wrap contract.	Plan initiated events, non-compliance with contract terms, asset default/impairments, asset management restriction violations, or regulatory changes could negate the wrap contract.
How default/bankruptcy remote are the underlying assets?	Stable value claims are aggregated with all other creditors.	Stable value claims are levied against the separate account created for the benefit of the fund	Book value guarantees may be negated, but the underlying asset pool is held separate for the benefit of the fund's investors

