



Stable Value Holds Strong

Three Reasons Why You Should Consider Stable Value for Your Plan Lineup

March 2019

KEY INSIGHTS

- Rising rates have contributed to the erosion of stable value's yield premium over money market funds. But, despite increasing money market fund yields, stable value continues to outperform money market funds, as it has during most previous rate hiking cycles. Accordingly, plans and participants have benefited from investing in stable value during both falling rate and rising rate environments.
- Higher interest rates mean higher crediting rates for stable value. However, higher rates also mean lower prices, and lower prices translate to lower stable value market-to-book value (M/B) ratios. With a more transparent Fed and more moderate interest rate forecasts for 2019 and 2020, we do not expect M/B ratios to change significantly.
- The wrap industry remains strong and appears to have fully recovered from the 2008 financial crisis (Crisis) based on the healthy number of active providers and available capacity. By the fourth quarter of 2018, there were 17 active wrap providers, five more than in 2009, and nearly 35 billion USD in additional wrap capacity available to stable value managers.

Stable value strategies continue to offer a uniquely attractive risk/reward profile for defined contribution plans and participants who include principal preservation components, like money market and stable value funds, in their investment lineups.

In steady interest rate and falling interest rate environments, stable value, with its longer duration and higher risk profile, has typically produced a higher yield and outperformed other principal preservation options, like money market funds, by 100 to 200 basis points.

In rising interest rate environments, where the Federal Reserve is hiking rates and the yield curve is flattening, over time, the yield differential between money market funds and stable value portfolios will be reduced, potentially reaching a point where participants are indifferent and no longer incentivized to move money from money market funds into stable value portfolios.

Furthermore, in extreme interest rate environments, the Federal Reserve may hike rates to a point where the yield on money market funds exceeds the crediting rate offered by stable value portfolios. While periods where money market



Antonio L. Luna, CFA
*Head of Stable Value,
Portfolio Manager*



Robert A. Madore
Portfolio Manager, Stable Value



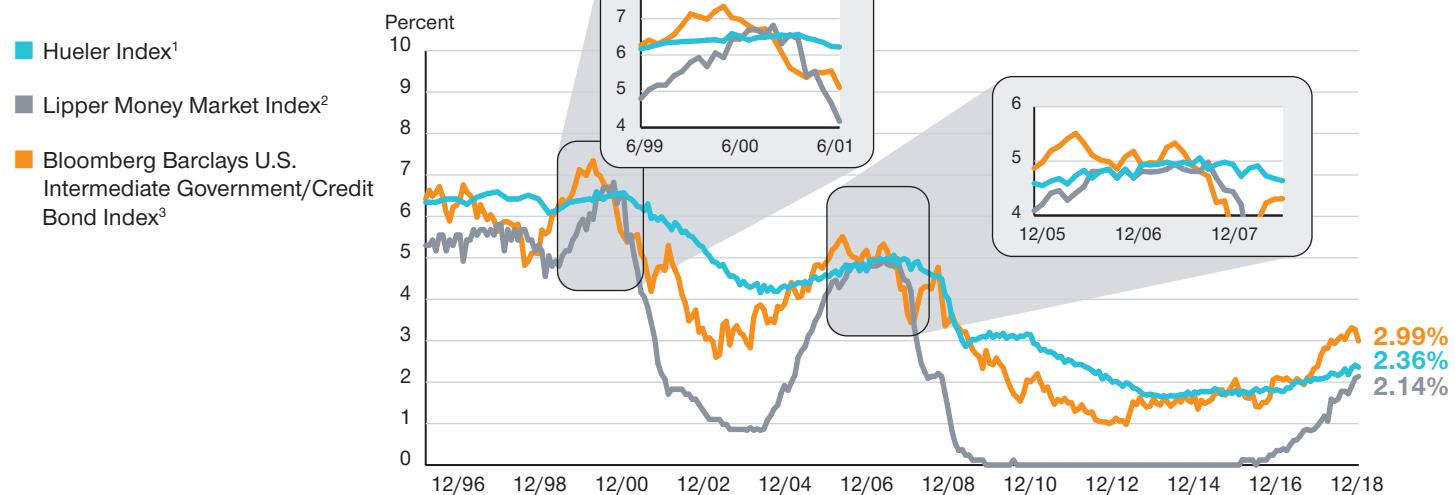
Whitney H. Reid, CFA
Portfolio Specialist, Stable Value

(Fig. 1) Brief Disintermediation With Slight Money Market Outperformance

Annualized Yield Comparison

As of December 31, 2018

Figures Are Calculated in U.S. Dollars



Past performance is not a reliable indicator of future performance.

¹The benchmark is the Hueler Analytics Stable Value Pooled Fund Index (Hueler Pooled Fund Index). The Hueler Pooled Fund Index is provided by Hueler Analytics, Inc., a stable value data and research firm, which has developed the Hueler Analytics Stable Value Pooled Fund Comparative Universe (Universe) for use as a comparative database to evaluate collective trust funds and other pooled vehicles with investments in GICs and other stable value instruments. The Hueler Pooled Fund Index is an equal-weighted total return average across all participating funds in the Universe and represents approximately 75% of the stable value pooled funds available to the marketplace. Universe rates of return are reported gross of management fees. Hueler Index statistics are presented for comparative purposes only. Any further dissemination, distribution, or copying of the Universe data is strictly prohibited without prior approval or authorization from Hueler Analytics.

²Source of Lipper data: Lipper Inc.

³Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index is a component of the Bloomberg Barclays U.S. Government & Credit Index. The Government & Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries (i.e., public obligations of the U.S. Treasury that have remaining maturities of more than one year) and agencies (i.e., publicly issued debt of U.S. government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

There is no standardized, industry-accepted benchmark for stable value portfolios. All information on this page is provided for illustrative purposes only.

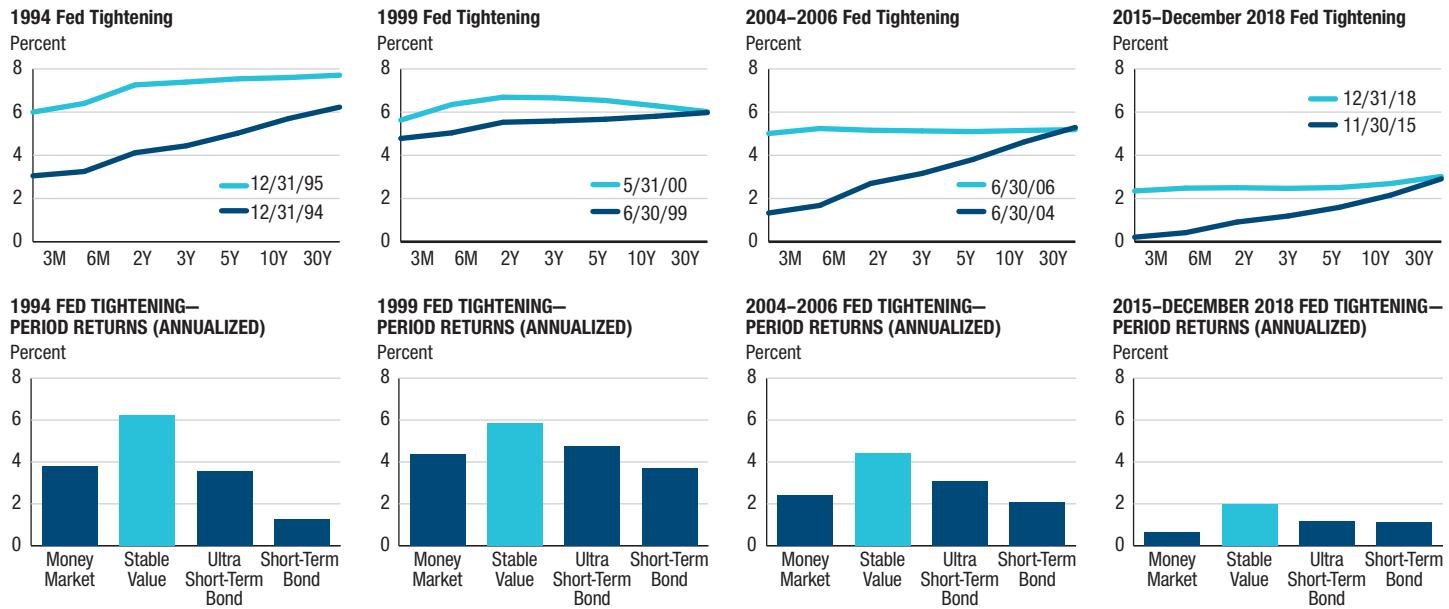
fund yields exceed stable value crediting rates—i.e., periods of disintermediation—have been rare, participants and plan sponsors may end up moving assets from stable value into money market funds to chase higher yields.

In the chart above (Figure 1), we highlight periods of disintermediation over the two most recent rate hiking cycles, from 1999 to 2000 and from 2004 to 2006. As indicated in the chart, periods of disintermediation have been brief (on average, 12 months) and the amount by which money market fund yields exceed stable value crediting rates has been slight (5 to 50 basis points) (Sources: T. Rowe Price, Bloomberg, and Hueler Analytics).

Despite increasing money market fund yields during previous rate hiking cycles, stable value outperformed money markets during most of those periods—and has continued to do so. As highlighted in the following chart (see Figure 2 on page 3), stable value, with its longer duration and higher risk profile, outperformed money market funds and low-duration fixed income strategies, like ultra short-term and short-term bond, through periods of Fed tightening. As was the case in prior rate hiking cycles, plans and participants have benefited from investing in stable value during the current rate hiking cycle, which began in December 2015. **Stable value has proven to be an investment option for multiple market and interest rate environments.**

(Fig. 2) Stable Value Outperformed Through Fed Tightening

Historic Rate Tightening Cycle—Yield Curve Change



Money market funds, trusts, separate accounts, and mutual funds have different risks, including the possible loss of principal. It is important that you carefully review the legal documents for each type of vehicle to determine if it is appropriate for you prior to investment.

Money Market is represented by the Lipper US Treasury Money Market Index; Ultra Short-Term Bond is represented by the Bloomberg Barclays 9–12 Month T-Bill Index; Short-Term Bond is represented by the Bloomberg Barclays U.S. 1–3 Year Government/Credit Bond Index; Stable Value is represented by the Hueler Pooled Funds Index.

The Fed's target rate rose 300 bps over the 1994–1995 tightening cycle; 175 bps over the 1999–2000 tightening cycle; 425 bps over the 2004–2006 tightening cycle; and 250 bps over the current tightening cycle.

Sources: Hueler Analytics, Lipper Inc., U.S. Department of the Treasury, and T. Rowe Price.

Source for Bloomberg Barclays index data: Bloomberg Index Services Ltd. Copyright © 2019, Bloomberg Index Services Ltd. Used with permission.

Interestingly, higher rates and prevailing lower M/B ratios may have increased consultant and plan sponsor sensitivity to risks in their stable value portfolios. For example, from 2017 to 2018, we worked with a number of plans looking to de-risk their stable value account by transitioning from a single insurance company product with a longer duration (four to six years) and broader investment guidelines (which may include high yield investments) to a multi-wrap provider with a shorter duration (two and a half to three years), higher credit quality, and more conservative investment guidelines. It has been our experience in rising rate environments with falling M/B ratios that plans and their advisors put a premium on more conservative products for their principal preservation option.

How Low Market-To-Book Ratios Go Depends On Rates

Stable value portfolios react to changes in interest rates much the same way that a fixed income security does—as interest rates rise, the market value of a stable value portfolio will fall along with its M/B ratio. As of December 31, 2018, the average M/B ratio for the Hueler Stable Value Pooled Fund Universe (Hueler Universe) was 98.7% (Source: Hueler Analytics). At the height of the Crisis, the average M/B ratio for the stable value pooled fund universe fell to 93.7%, as shown in Figure 3 on page 4 (Source: Hueler Analytics).

Unlike the current market environment, the decline in M/B ratios during the Crisis was driven by credit downgrades and defaults, primarily in subprime, private-label mortgages and corporate bonds.

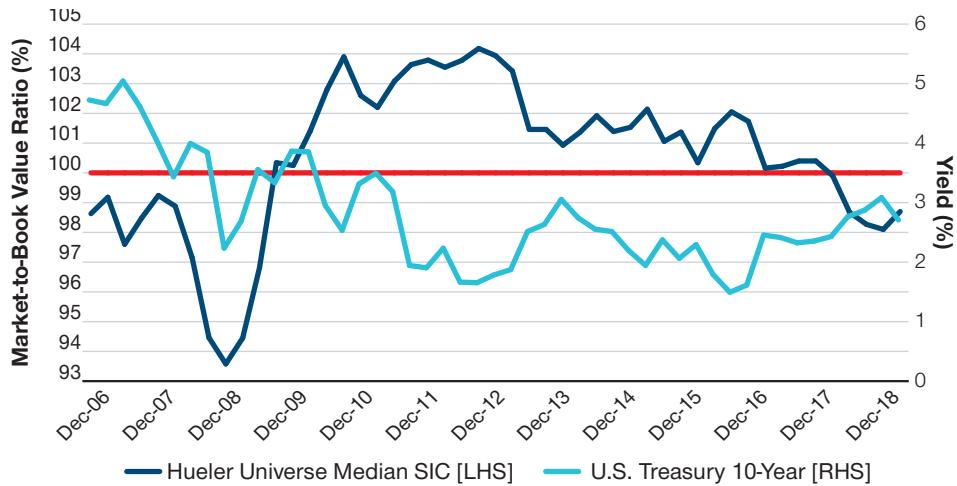
During the Crisis,
rates actually fell.

The decline in M/B
ratios was driven by
credit downgrades
and defaults....

— Tony Luna, CFA
Head of Stable Value,
Portfolio Manager

(Fig. 3) Average Stable Value M/B Ratio Fell To 93.7% At The Height Of The Crisis

Historic Market-to-Book Value Ratios (Hueler Universe Median)



Sources: Hueler Analytics and Bloomberg.

Given a more transparent Fed and a more moderate interest rate forecast calling for fewer rate hikes in 2019 and 2020, we do not expect M/B ratios to change significantly, much less retest the levels witnessed at the height of the Crisis.

Wrap Industry Fully Recovered

The wrap industry remains strong and appears to have fully recovered from the Crisis, based on the healthy number of active providers and available capacity. At the height of the Crisis, wrap providers severely limited capacity as several firms started winding down contracts and exited the industry. Following the Crisis, the wrap industry was well on its way to a full recovery by 2014. By the third quarter of 2018, there were 17 active wrap providers, five more than in 2009, and nearly 35 billion USD in additional wrap capacity available to stable value managers—see Figure 4 on page 5.

In addition to more wrap capacity, the composition of the wrap industry has also changed. Today, insurance companies play a bigger role in the industry relative to banks. Heading into the Crisis, banks played a much bigger role in the industry (Source: Valerian Capital).

Stable value managers and participants have also benefited from the industry recovery as wrap fees continue to trend lower after spiking during the Crisis. During the Crisis, wrap fees more than tripled, moving from six to eight basis points (bps) to 25 to 30 bps. As wrap capacity increased, fees started to moderate, falling to their current range of 17 to 21 bps. Higher fees helped offset increased costs as wrap providers invested in more sophisticated risk management systems and, in some instances, partnered with investment consultants to augment their manager surveillance capabilities.

Today, wrap providers are employing much more sophisticated risk management and manager surveillance systems. We believe wrap fees can continue to move lower, but there may be resistance with M/B ratios below par and the increased risk management costs.

Conclusions

Rising rates are slowing the growth in stable value assets as money market fund yields compete with stable value crediting rates. As the difference between money market fund yields and stable value

By the third quarter of 2018, there were **five more** wrap providers and **nearly 35 billion USD** in additional wrap capacity available to stable value managers than in 2009.

(Fig. 4) Ample Number Of Wrap Providers And Capacity

Stable Value Wrap Providers

As of December 31, 2018

Wrap Provider Name	Category	Marketshare ¹ (Billions USD)	Marketshare ¹	
			Moody's	S&P
1 Prudential	Insurance Company	\$77.0	A1	AA-
2 Met Life	Insurance Company	\$58.3	Aa3	AA-
3 Transamerica	Insurance Company	\$51.7	A1	AA- neg
4 Voya	Insurance Company	\$37.5	A2	A
5 American General	Insurance Company	\$28.6	A2	A+ neg
6 State Street	Bank	\$26.7	Aa3	AA-
7 Pacific Life	Insurance Company	\$23.3	A1	AA-
8 Massachusetts Mutual	Insurance Company	\$18.3	Aa2 watch	AA+
9 Nationwide	Insurance Company	\$17.0	A1 neg	A+
10 Royal Bank Canada	Bank	\$15.8	Aa2	AA-
11 JPMorgan ²	Bank	\$13.6	Aa2	A+
12 RGA	Insurance Company	\$13.4	A1	AA-
13 New York Life	Insurance Company	\$9.0	Aaa	AA+
14 Lincoln National	Insurance Company	\$3.2	A1	AA-
15 United of Omaha	Insurance Company	\$2.4	A1	AA-
16 TIAA Life	Insurance Company	\$2.1	Aa1	AA+
17 Principal	Insurance Company	\$1.2	A1	A+
18 American United Life	Insurance Company	\$0.6	WR	AA-
19 Bank of Tokyo-Mitsubishi	Bank	\$0.0	A1	A
20 National Life Group	Insurance Company	\$0.0	A2	A+
Total		\$399.7		

Source: Valerian Capital.

¹The outstanding notional for this entity is based on market intelligence or 10Ks and was not confirmed by the provider.

² As of May 2018 the notional amounts for JPMorgan have been reduced by \$15 billion to be consistent with market intelligence.

crediting rates is reduced, plan sponsors are not incentivized to select stable value over money market funds.

However, even under extreme interest rate environments where money market fund yields exceed stable value crediting rates, periods of disintermediation have been brief and not significant. Over the long term, plans and participants have benefited from investing in stable value versus money market fund as well as

low-duration strategies like ultra short-term and short-term bond. In short, stable value has proven to be an investment option for all seasons and interest rate environments.

Lastly, the wrap industry has recovered and remains healthy with wrap fees continuing to move lower following the Crisis.

INVEST WITH CONFIDENCE®

T. Rowe Price focuses on delivering investment management excellence that investors can rely on—now and over the long term. To learn more, please visit troweprice.com.

T. Rowe Price®

Important Information

Money market and stable value funds have different risks. It is important that you carefully review the legal documents for each type of vehicle prior to investment to determine if it is appropriate for you.

This material is provided for informational purposes only and is not intended to be investment advice or a recommendation to take any particular investment action. The views contained herein are those of the authors as of March 2019 and are subject to change without notice; these views may differ from those of other T. Rowe Price associates.

Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). BARCLAYS® is a trademark and service mark of Barclays Bank Plc (collectively with its affiliates, "Barclays"), used under license. Bloomberg or Bloomberg's licensors, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.

This information is not intended to reflect a current or past recommendation, investment advice of any kind, or a solicitation of an offer to buy or sell any securities or investment services. The opinions and commentary provided do not take into account the investment objectives or financial situation of any particular investor or class of investor. Investors will need to consider their own circumstances before making an investment decision.

Information contained herein is based upon sources we consider to be reliable; we do not, however, guarantee its accuracy.

Past performance is not a reliable indicator of future performance. All investments are subject to market risk, including the possible loss of principal. All charts and tables are shown for illustrative purposes only.

T. Rowe Price Investment Services, Inc.

© 2019 T. Rowe Price. All rights reserved. T. Rowe Price, INVEST WITH CONFIDENCE, and the Bighorn Sheep design are, collectively and/or apart, trademarks of T. Rowe Price Group, Inc.