



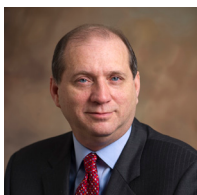
PRICE PERSPECTIVE®

June 2017

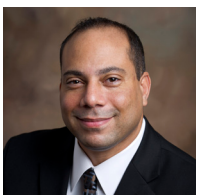
In-depth analysis and insights
to inform your decision-making.



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*

Stable Value **AN INCREASINGLY ATTRACTIVE PRINCIPAL PRESERVATION ALTERNATIVE**

EXECUTIVE SUMMARY

- Several key trends are enhancing the relative attractiveness of stable value as a principal preservation option within defined contribution plans—at a time when the stable value industry has capacity to absorb additional participant inflows.
- Regulatory reforms in the U.S. money market industry have prompted many plan sponsors and their advisors to reevaluate their principal preservation and low-duration investment options. The reforms also have led many plan participants to rethink how they invest cash and reconsider their investment expectations.
- As the dust settles following money market reform, stable value has been a clear beneficiary. More plans have decided either to add stable value to their investment lineups or to replace their existing money market options with stable value vehicles.
- The stable value industry is healthy and continues to grow and expand. Although insurance companies, not banks, now dominate the ranks of wrap issuers, there are more issuers and more wrap capacity available in the market today than there were prior to the 2008–2009 financial crisis.
- In our view, an environment in which the Federal Reserve is slowly raising rates should bode well for stable value strategies relative to money market funds and comparable low-duration bond strategies. A gradual pace of Fed tightening should help stable value track short-term rates more closely.

Stable value strategies have long offered a uniquely attractive risk/reward combination to defined contribution (DC) plan sponsors and participants who wish to include a principal preservation component in their investment programs. Now, a convergence of factors has further enhanced stable value's appeal compared with alternatives such as money market funds and low-duration bond strategies. Plan sponsors and participants alike have taken note.

The investment features associated with stable value—historically attractive real

yields, liquidity, and protection against downside volatility provided by the wrap feature—have always been difficult to replicate with other strategies. But recent regulatory, financial, and economic developments are tilting the playing field even more heavily in stable value's favor:

- Regulatory reforms have given fund boards greater authority to impose redemption gates or fees in periods of financial stress. These changes have prompted a number of asset managers to convert their prime money funds to government funds

and have depressed yields on short-term U.S. Treasury and U.S. government securities.

- Wrap capacity has more than fully recovered from the 2008–2009 financial crisis, as a number of high-quality issuers have entered the market. Credit quality is strong, and recent industry surveys have shown wrap capacity at higher levels than before the crisis.
- The Federal Reserve’s policy of gradually hiking interest rates toward more historically normal levels should produce an attractive investing environment for stable value. Slowly rising rates and a positively sloped yield curve create the potential for stable value strategies to maintain their historical yield and return advantages over money funds and low-duration bond strategies.

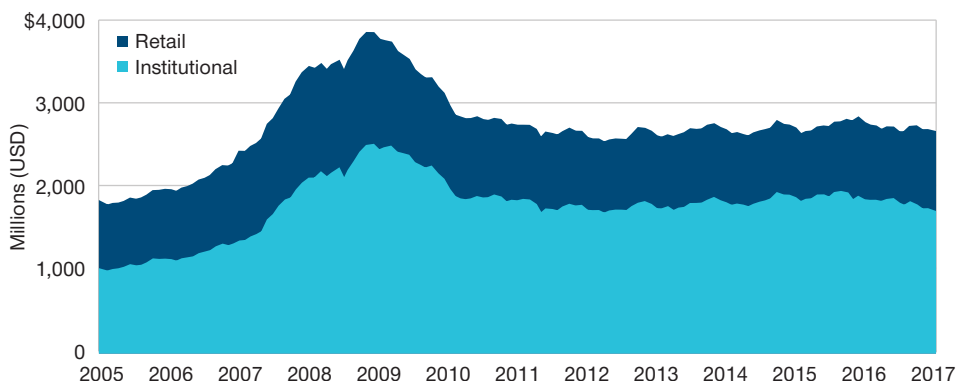
In response to these trends—and to the urgent yield and return needs of plan participants—many DC plan sponsors and their advisors are reevaluating their principal preservation options. A growing number of sponsors are adding stable value to their investment lineups, either to supplement or replace their existing money market offerings. Given the fundamentals, we believe stable value will continue to attract strong plan sponsor interest and increased participant inflows in the years ahead.

THE IMPACT OF MONEY MARKET REFORM

The money market regulatory reforms that took effect in 2016 not only changed the overall composition of the money fund industry, we believe they have also permanently changed cash management practices for investors. While one could argue that institutional investors—i.e., corporate treasurers and cash managers—have been most impacted, individual retail investors and, to an even greater extent, DC plan participants have also been affected.

FIGURE 1: Retail and Institutional Money Market Fund Flows

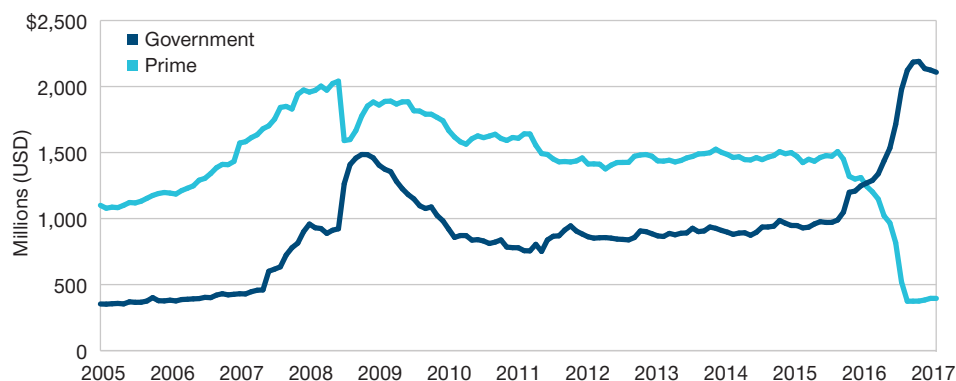
In USD Millions, as of March 31, 2017



Source: Investment Company Institute.

FIGURE 2: Taxable Money Market Fund Flows

In USD Millions, as of March 31, 2017



Source: Investment Company Institute.

A number of plans have been left with a relatively limited menu of money fund options, as many DC recordkeepers will not accept funds that feature redemption gates or fees on their platforms. This has forced some plans to replace their prime money market funds with government or Treasury money fund options.

Institutional cash investors have had to make similar decisions. The new institutional money market fund options are simply not attractive for many investors, given that potential restrictions (redemption gates or fees) might be imposed on their most liquid accounts at times when they urgently need access to those funds. While the overall level

of money market fund flows has not changed significantly in response to the reforms (Figure 1), the mix between prime and government fund assets has shifted dramatically (Figure 2). All told, in the runup to the October 2016 deadline for money market reform, over USD \$1.2 trillion in money fund assets was moved from prime funds to Treasury and government funds.

The dramatic shift of assets from prime to government money funds has impacted the front end of the Treasury yield curve. Demand has outstripped supply, driving up prices and pushing down yields on short-term Treasuries and other short-term government securities, while the

yield difference (i.e., spread) between government and corporate securities have widened. If these changes persist, they are likely to continue to negatively impact the performance of government money funds relative to prime funds and alternative principal preservation options like stable value.

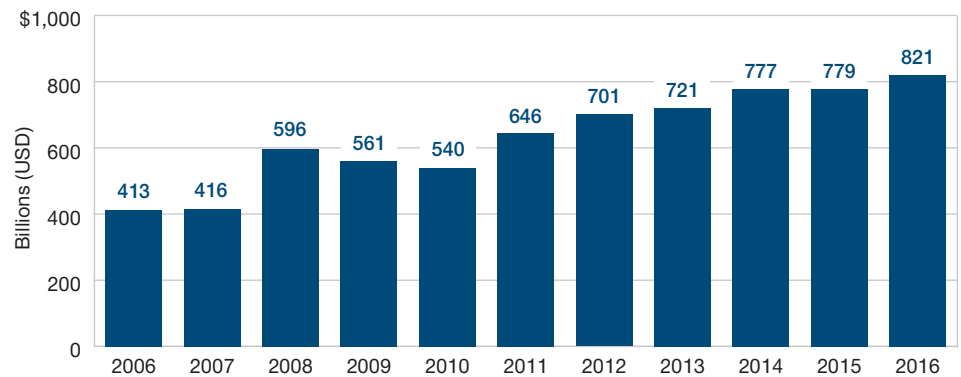
While the impact of money market reform is still being felt across the DC plan universe, measuring that impact has been a challenge. A recent Callan Institute Survey of 165 large and mega 401(k) plans found that:

- Almost two-thirds (64%) of the plans surveyed had changed their money market fund offerings or eliminated them altogether as a result of the reforms.
- Most of the plans that made changes (60.5%) switched from prime or retail money funds to government money funds.
- A significant number of plans (18.4%) switched from 1940 Act funds to common trust funds, separate accounts, or some other type of investment vehicle not directly impacted by reform.
- A smaller number of plans (7.9%) switched to either floating or stable net asset value money market funds with redemption fees or gates.
- Another 13.2% of the plans reported changing their principal preservation option to a stable value fund.¹

If the Callan survey results are truly representative of the broader DC plan community, stable value has been one of the clear winners from money market reform. We believe stable value has even further room to grow as plan sponsors, particularly those offering lower-yielding government funds, continue to reevaluate their principal preservation options.

FIGURE 3: Stable Value Asset Growth

As of December 31, 2016



Source: Stable Value Investment Association.

FIGURE 4: Stable Value Assets in Top Private and Public Plans

As of September 30, 2016

Rank	Top 200 Private Retirement Systems		Top 200 Public Retirement Systems	
	Investment Option	% of Total Assets	Investment Option	% of Total Assets
1	Domestic Equities	40.4%	Domestic Equities	40.5%
2	Target Date Funds	16.9	Stable Value	19.0
3	Company Stock	13.9	Target Date Funds	16.0
4	Stable Value	13.5		

Source: *Pension & Investments*, 2016 annual survey.

THE STABLE VALUE INDUSTRY IS ON A FIRM FOOTING

If one were to measure the health of the stable value industry by the amount and growth in assets under management—as well as by the number of wrap issuers, the available wrap capacity, and the level of wrap fees—then by all accounts, the stable value industry is on a solid footing following its recovery from the 2008–2009 financial crisis:

- Stable value assets have risen more than 35% since the financial crisis and have nearly doubled since 2006. A recent survey by the Stable Value Investment Association found that stable value assets totaled approximately USD \$821 billion as of the end of December 31, 2016 (Figure 3).

- According to a 2016 survey by *Pension & Investments* magazine, stable value remains one of the more popular investment options across both private and public plans—right behind domestic equities, target date funds, and (for private plans) company stock (Figure 4).

- Wrap capacity and the number of wrap issuers both have continued to rise since the financial crisis. Valerian Capital Group reports that there were 19 active wrap issuers and nearly USD \$420 billion of notional wrap capacity outstanding at the end of 2016.² This compares with 2009 levels, at which point there were 13 active wrap issuers and approximately USD \$362 billion in notional wrap capacity outstanding.

¹Callan Associates, 2017 Defined Contribution Trends 10th Anniversary Edition, January 2017.

²Valerian Capital Group, December 31, 2016.

In addition to the changing environment for wrap issuers, the composition of the universe of wrap issuers has also changed. By all accounts, insurance companies now dominate the market in terms of the number of issuers and notional amounts outstanding. Of the 19 active wrap issuers recently identified by Valerian Capital Group, all but four were insurance companies. In the lead-up to the financial crisis, the wrap issuer industry was much more balanced between insurance companies and banks.

That said, we see no discernable differences in credit quality or other product characteristics between insurance and bank wrap issuers. We believe having more high-quality issuers active in the market is better for the industry as a whole, as it provides more choices and additional diversification opportunities for stable value managers. In the end, this also is good for stable value investors.

Wrap fees have also moderated since rising sharply during the financial crisis. Leading up to the crisis, wrap fees averaged 8–12 basis points (bps), rising to 25–30 bps during the crisis as wrap capacity became extremely constrained. Since the crisis, wrap fees have trended lower and currently sit at 18–22 bps, on average. However, some wrap issuers have been able to command slightly higher fee levels as a result of their higher credit ratings.

MARKET OUTLOOK: A RISING RATE ENVIRONMENT

As of late May 2017, the Fed had raised the federal funds rate three times since December 2015. Despite these rate hikes, the overall level of interest rates has remained historically low, and investors have continued their hunt for better yields and returns on their fixed income allocations.

As previously noted, money market reforms have led some DC plans to shift their lineups from prime to government

FIGURE 5: Returns for Periods Ended March 31, 2017

Returns Calculated in U.S. Dollars

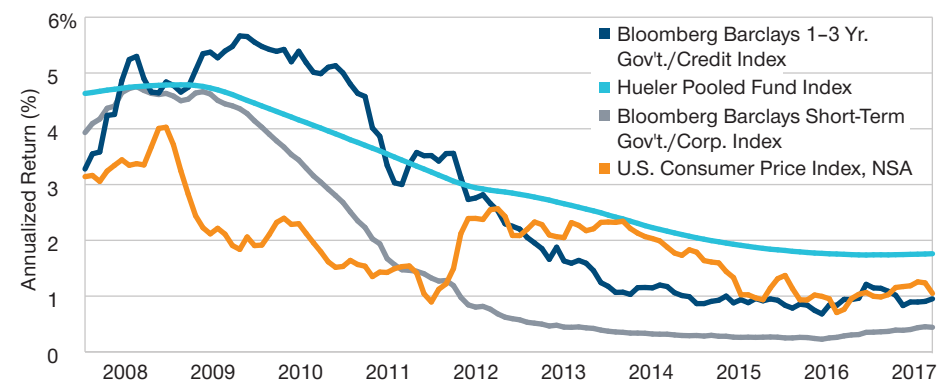
Low-Duration Strategy Category	Benchmark	Annualized			
		One Year	Three Years	Five Years	10 Years
Money Market	Lipper U.S. Treasury Money Market Funds Index	0.08%	0.03%	0.02%	0.46%
Stable Value	Hueler Pooled Fund Index	1.80	1.76	1.84	2.70
Ultra Short-Term Bond	Bloomberg Barclays Short-Term Gov't./Corp. Bond Index	0.74	0.45	0.39	1.23
Short-Term Bond	Bloomberg Barclays 1–3 Year U.S. Gov't./Credit Index	0.71	0.96	0.93	2.34

Sources: Lipper, Hueler Analytics, Bloomberg Barclays, and T. Rowe Price.

Money Market Funds, Trusts, Separate Accounts and Mutual Funds have different risks. 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.

FIGURE 6: Historical Returns Compared With Inflation

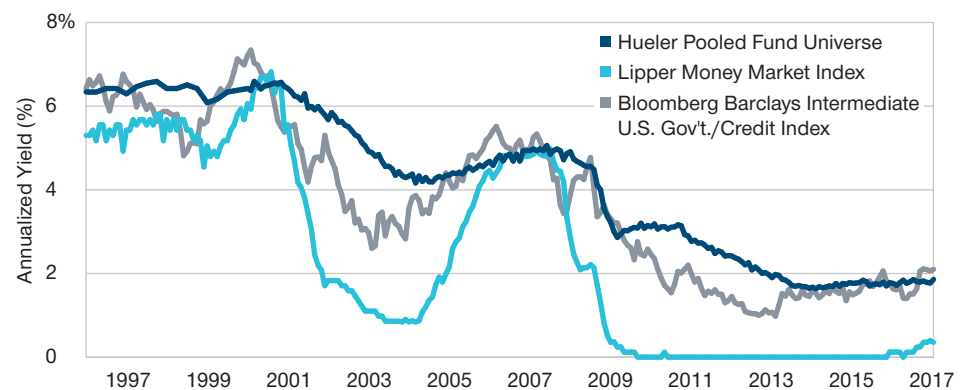
As of March 31, 2017



Sources: Hueler Analytics, Bloomberg Barclays, Zephyr, and T. Rowe Price.

FIGURE 7: Annualized Yield Comparison*

As of March 31, 2017



Sources: Hueler Analytics, Lipper, Bloomberg Barclays, and T. Rowe Price.

* Monthly return data for the Hueler and Lipper indices have been converted to annualized yields by T. Rowe Price. **Past performance cannot guarantee future results.** The above chart is for illustrative purposes only and not meant to represent the performance of any specific investment option.

FIGURE 8: Historical Federal Reserve Rate Tightening Periods



Sources: Hueler Analytics, Lipper Inc., Bloomberg Barclays, and Federal Reserve of St. Louis; data analysis by T. Rowe Price.

fund strategies. While this shift has lowered credit risk exposure, it also has reduced yield and income potential, given that government money funds historically have provided lower yields than prime funds, which have the ability to invest in higher-yielding corporate money market securities.

One of the reasons stable value continues to be a popular principal preservation alternative is its yield advantage over money market funds. Stable value strategies historically have maintained a yield advantage of 100–200 bps over money funds and have consistently delivered a return premium versus both money funds and comparable low-duration bond strategies (Figure 5, page 4).

Plan sponsors and participants may be concerned that stable value's

performance advantages will be reduced or eliminated if, as widely expected, the Federal Reserve continues to raise short-term interest rates. However, under normal market conditions in which the yield curve is upwardly sloped, stable value funds should have a natural yield advantage because of their longer duration—an average three years versus a weighted average maturity of less than 60 days for money market funds.

Moreover, on a real return basis (i.e., net of inflation), stable value strategies historically have delivered positive rates of return more consistently compared with money market funds and comparable low-duration investment options (Figure 6, page 4). Because of their shorter weighted average maturity, money market funds are more sensitive to and will more closely track changes in short-term rates. Stable value fund

crediting rates, on the other hand, tend to lag sharp moves in short-term rates because of their relatively longer duration (Figure 7, page 4).

Contrary to their effect on most fixed income products, rising interest rates can improve a stable value portfolio's performance. The relatively short duration of stable value portfolios tends to limit price volatility in a rising rate environment and should allow portfolio managers to reinvest maturing proceeds in higher-yielding securities. This should help stable value crediting rates track market interest rates as they move higher, partially offsetting the negative impact of rising rates on the value of existing holdings. During recent Fed tightening cycles, stable value strategies have performed well relative to money funds and comparable low-duration fixed income strategies.

We believe it would take an unusually large—and rapid—set of Fed rate hikes to offset the nearly 200 bps yield premium that stable value recently has provided, on average, over money market funds.³

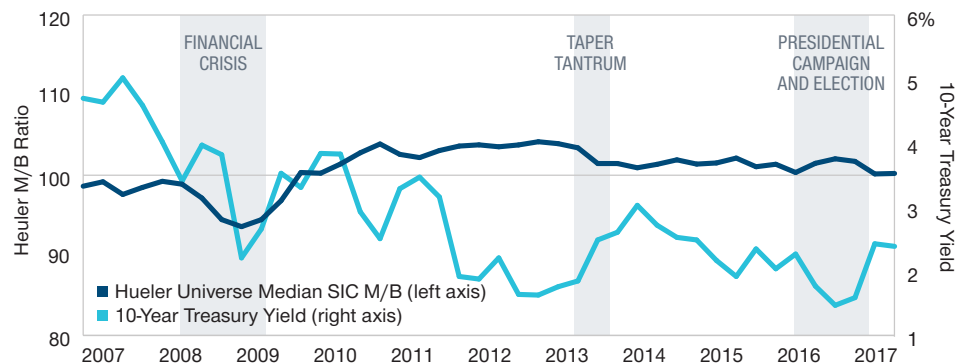
As of early May 2017, market expectations—as expressed in the futures implied rate—appeared to anticipate only a 75 to 100 bps increase in the federal funds rate through December 2019.⁴ This would represent both a much slower pace of rate hikes and a lower terminal level of rates compared with other recent Fed policy cycles. The Fed's target for the federal funds rate rose 300 bps over the 1994–1995 tightening cycle; 175 bps over the 1999–2000 tightening cycle; and 425 bps over the 2004–2006 tightening cycle. (Figure 8, page 5).

We believe an environment in which the Fed is raising rates slowly over time bodes more favorably for stable value than it does for either money funds or comparable low-duration bond strategies.

It should also be noted, however, that a rising interest rate environment can put downward pressure on portfolio market values, resulting in lower market-to-book (M/B) ratios. Over the past decade, M/B ratios have generally ranged between 95% and 105%, based on the Hueler Universe Median Synthetic Investment Contract (SIC) (Figure 9). In a persistent rising rate environment, M/B ratios could eventually fall and stay below 100% for a period of time. This should be expected and is normal for stable value products. However, subpar M/B ratios could decrease portfolio portability and create

FIGURE 9: Hueler M/B Ratio Versus 10-Year Treasury Yield

M/B Ratio Through December 31, 2016; Treasury Yield Through March 31, 2017



Sources: Hueler Analytics, Bloomberg Barclays, and T. Rowe Price.

a certain amount of friction in portfolio transitions for plan sponsors that may be changing investment managers.

CONCLUSIONS

Over the past two years, money market regulatory reform has helped redefine the principal preservation space for DC plan sponsors and participants, focusing renewed attention on plan investment lineups and offerings. As the dust has settled, it has become apparent that stable value has been one of the clear winners. A number of DC plan sponsors have added stable value options to their investment lineups, contributing to an influx of new accounts and assets.

We believe stable value would be well positioned to prosper irrespective of the changes brought about by money market reform. A rising rate environment could boost stable value yields, and the stable value industry is on a much firmer

footing following its recovery from the financial crisis. There are more wrap issuers and greater wrap capacity in the market today than there were before the crisis began. Having more high-quality wrap issuers provides greater choice and better diversification opportunities for stable value managers—benefiting not only managers, but DC plan sponsors and participants as well.

Going forward, relative to money funds, we think stable value should continue to perform at the higher end of its historical range (100–200 bps) of relative outperformance.

In our view, an environment in which the Federal Reserve is slowly raising rates should bode well for stable value strategies relative to money market funds and comparable low-duration bond strategies. A gradual pace of Fed tightening should help stable value track short-term rates more closely.

³Based on the yield difference between the Hueler Stable Value Pooled Fund Index and the Lipper Money Market Funds Index, as of April 30, 2017. Monthly return data for the Hueler and Lipper indices were converted to annualized yields by T. Rowe Price. **Past performance cannot guarantee future results.**

⁴Bloomberg Barclays, as of May 4, 2017.

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.

Important Information

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 June 2017 and are subject to change without notice; these views may differ from those of other T. Rowe Price associates.

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.

The Hueler Analytics Stable Value 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 (the "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.

Source for Bloomberg Barclays index data: Bloomberg Index Services Ltd. Copyright® 2017, Bloomberg Index Services Ltd. Used with permission.

The Lipper Money Market Funds Index is an equally weighted performance index of the largest qualifying funds in the Lipper category. Lipper index gross of fees performance data is not available. Source: Lipper Inc.

Past performance cannot guarantee future results. All investments involve risk. All charts and tables are shown for illustrative purposes only.

T. Rowe Price Investment Services, Inc., Distributor.
