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What's Inside Your DC Plan?

Understanding alternatives for short term fixed income.

By Ronnie Shah

or retirement planners, the appropriate portfolio allocation to short-term fixed income depends on the investor's needs and preferences. Short-term bonds typically can provide two main benefits: reducing overall portfolio volatility and capital preservation. Short-term fixed income has low overall volatility and low correlations to other asset classes such as equities. In volatile, underperforming equity markets, short-term fixed income can help preserve capital due to relatively low sensitivity to interest rate and equity market movements.

The predominant DC investment solutions for short-term fixed income are money market and stable value funds. Money market funds invest in high-quality fixed income securities with average maturities of two months or less. Stable value funds typically invest in different types of bonds and seek to protect against downside risk through an insurance contract. As of the end of 2011, \$2.7 trillion was invested in money market funds, representing 23.2% of all mutual fund assets,¹ while stable value funds accounted for \$645 billion.²

As plan participants get older, their allocation to short-term fixed income tends to increase. For the typical 401(k) plan participant who is twenty to

Figure 1a: 401(k) Asset Allocation for Participants Ages 60–69



Source: 2012 Investment Company Fact Book Investment Company Institute (2012), 111

Figure 1b: IRA Asset Allocation for Participants Ages 60-69



Source: 2012 Investment Company Fact Book Investment Company Institute (2012), 121

twenty-nine years old, the plan allocation to money market funds is 2.6%, while 4.4% is allocated to stable value funds. In contrast, for those ages sixty to sixty-nine, 6.2% is invested in money market funds and 16.5% is invested in stable value funds. For traditional individual retirement accounts (IRAs), the money market allocation jumps to nearly a quarter.³ See Figure 1a and Figure 1b.

¹ 2012 Investment Company Fact Book Investment Company Institute (2012), 101.

² SVIA 16th Annual Investment Policy Survey Covering Stable Value Assets as of year-end 2011.

³ 2012 Investment Company Fact Book Investment Company Institute (2012), 170.

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Money market and stable value funds have historically been important components of retirees' overall investment portfolios and are a powerful force in financial markets due to their size and scope. More recently, regulatory oversight of money market funds is changing the way financial planners think about short-term fixed income. Some financial planners are recommending short-horizon fixed strategies as alternatives to money market funds and stable value.

This article highlights the benefits and limitations of different investment alternatives for short-term fixed income. The first and second sections discuss the operational and regulatory background regarding money market and stable value funds. The third section explains how a market-based variable maturity approach seeks to increase expected returns for a short-term fixed income strategy. The fourth section discusses the potential benefits of applying a variable maturity approach to global fixed income investing. The results suggest that using a variable maturity approach to shortterm fixed income may be appropriate for a retirement plan participant who has the flexibility to take on modest term risk and seeks greater yield than can be obtained from traditional money market or stable value funds.

Money Market Fund Basics

Bruce R. Bent and Henry B. R. Brown set up the first money market fund in 1970. Called the Reserve Fund, it was seen as an alternative to holding cash that generates a small rate of return. Money market funds typically have low risk relative to bond mutual funds and pay a distribution that is related to short-term interest rates. They are regulated under the Investment Company Act of 1940 and are open-ended mutual funds that invest in short-term fixed income securities. The risks of a money market fund stem from the credit and term risks associated with the underlying investments.

Since 1973, the money market industry has experienced tremendous growth. Figure 2 reports the aggregate assets under management. Assets climbed from \$4 billion in 1975 to a peak of \$3.3 trillion in 2008. See Fig. 2.

The genesis behind money market funds involves providing investors with an alternative to holding hard currency, checking accounts, or commercial deposits while providing potentially higher yields. In pursuing this goal, money market funds typically hold extremely liquid securities.

The SEC regulates money market funds by limiting the types of investments they are allowed to hold. Money market funds must purchase debt that matures in less than 397 days. The average maturity of their entire portfolio must be less than 60 days, and they cannot hold more than 5% in any one issuer.⁴ Potential investable securities include commercial paper, repurchase agreements, short-term bonds, and other money market funds. Unlike other mutual funds, the net asset value of a money market fund is normally \$1 per share.⁵ Investment returns are in the form of dividends that depend on the yield of securities in the portfolio.

In a few cases, a money market fund "broke the buck" or was unable to maintain a stable \$1 net asset value.6 Breaking the buck occurs when losses push the value of assets backing each share in the fund below \$1. A run on the fund occurs if the assets of the fund are not sufficient to cover investor redemptions. In this situation, investors who withdraw early will receive \$1 per share; those who wait will not receive the full \$1. The possibility of runs magnifies credit risk for individual investors. In response to fund runs, the SEC in 2010 revised the regulations for money market funds by shortening the average maturity and requiring funds to hold 10% of assets in securities that can be converted to cash in one day and 30% of assets in

Figure 2: Money Market Assets Under Management



Source: 2012 Investment Company Fact Book Investment Company Institute (2012), 170.

 $^{\rm 4}$ Government securities and repurchase agreements are exempt from the 5% rule.

⁵ A money market fund investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although a money market mutual fund seeks to preserve the value of your investment at \$1 per share, it is possible to lose money by investing in such a fund.

⁶ First Multifund for Daily Income's NAV fell to 94 cents per share in 1978 due to losses on a portfolio of securities that had an average maturity exceeding two years. The Community Bankers US Government fund's NAV fell to 96 cents per share due to investments in adjustable rate securities. More recently, the Reserve Fund's NAV fell to 97 cents per share due to investments in Lehman Brothers commercial paper.

securities that can be exchanged for cash within one week. The government is considering imposing additional regulation on money market funds.⁷

Understanding Stable Value

Stable value funds began to gain popularity after the passage of the Employee Retirement Income Security Act (ERISA) of 1974. Stable value funds are separate accounts that pool together assets from one or more 401(k) plans. They invest in a variety of fixed income securities. This portfolio is augmented with financial contracts that guarantee a minimum rate of return. There are two major types of stable value contracts.

- A guaranteed interest contract (GIC) is a group annuity contract that provides a specified rate of return regardless of the investment performance of its underlying securities. The contract provider has investment discretion and custody of the assets. The insurance provider takes on all maturity and credit risk and sets a rate based on prevailing interest rates. The rate of return is reset quarterly or semi-annually.
- Synthetic GICs involve separating the investment and downside protection components of a traditional GIC. The plan sponsor or outside asset manager has investment discretion and custody of the plan assets. The insurance company or bank issues a wrap contract that seeks to provide capital preservation protection in case the plan assets deliver poor returns. The contract provider reduces credit and term risk by restricting investment in fixed income securities that have low ratings or long durations.

The amount that contract providers charge for downside protection varies over time. The returns to a synthetic GIC can be thought of as comprising a fixed maturity bond and an interest rate option that provides compensation if interest rates rise and bond prices fall. In periods of volatile interest rates, the cost of downside protection can be large.

One size does not fit all for stable value funds since the details of the GIC contracts are negotiated between the contract provider and the plan sponsor. Plan sponsors are often required to provide twelve months of lead time before terminating a stable value fund. Plan sponsors that use stable value products are often restricted from offering competing products such as money market or ultra-short bond funds on the same 401(k) platform. When a plan participant redeems from a stable value fund, he or she may be restricted from transferring money into a competing product for a certain period of time.

A lack of transparency is common criticism of stable value products. Stable value funds are subject to counterparty risk associated with the creditworthiness of the contract provider. GIC contracts are annuity contracts that offer a fixed payment each month that does not change in-between the reset periods. This feature causes stable value funds to not be mark-to-market and to exhibit lower reported volatility when compared to traditional bond mutual funds.

A Flexible Approach to Shortterm Fixed Income Investing

Longer-term bonds historically have had higher returns and more volatility than shorter-term bonds. The term premium is the difference in the return of bonds with long maturities relative to those with short maturities. The term spread is the difference in yields. Money market and stable value funds control interest rate risk (and its associated volatility) by maintaining constant exposure to a particular duration, regardless of whether the expected term premium is high or low. But this approach ignores potentially valuable market-based information contained in prices.

A second approach would involve selecting how much exposure to term risk one should have at any particular point by forecasting changes in the vield curve. The difficulty with this approach is that it is almost impossible to forecast changes in economic and market conditions with enough consistency and accuracy to obtain reliable and robust results. A third possibility: Use a variable maturity approach that takes information contained in market prices to vary the maturity of the bond portfolio. For this approach to be successful, there must be a reliable relation between today's term spreads and future term premiums.

In Eugene Fama's pioneering research on the efficiency of fixed income markets, he finds the yield curve provides information on differences in expected returns for securities with varying maturities. The shape of the yield curve contains information on the market's expectation of the term premium, or the difference between long- and short-maturity bond returns. Historical analysis and academic literature demonstrate a reliable relationship between current term spreads and future term premiums. More specifically, wider (narrower) yield spreads predict larger (smaller) term premiums. A variable maturity strategy uses the information in current yield curves to target securities with higher expected returns. Variable maturity strategies extend maturities when the yield curve is steep and there is greater anticipated return for holding longer maturity bonds. When the yield curve is flat or inverted, these strategies take on less term risk by investing in shorter-maturity bonds.

Using market-based information contained in the current shape of the yield curve, plan participants can use variable maturity strategies to target securities with higher expected returns.

⁷ For more information, see a report by a group of influential academics, "Reforming Money Market Funds," Squam Lake Group, January 14, 2011.

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This process does not rely on forecasting; it uses a market-driven approach to vary the maturity of the portfolio depending on whether the term premiums are expected to be high or low.

Going Global

Investors around the world have historically had greater home bias in their fixed income investments than in their equity investments. As of October 31, 2012, \$10.3 trillion was invested in US fixed income securities, representing 28.4% of total worldwide fixed income. Investors who concentrate their portfolio in one country, even if that country is the US, may not be well diversified. Bonds are subject to specific countrylevel macroeconomic risk related to changes in GDP growth, industrial production, fiscal and monetary policy, and the level of unemployment. A dynamic approach that considers the tradeoffs between diversification and increased expected returns can be a reliable and robust way to add value in a global bond strategy. See Figure 3.

For a US plan participant, changes in bond yields and foreign exchange

movements affect the returns on foreign bonds. Information from foreign exchange markets can be used to create hedged bond yields as a way of facilitating comparisons between bonds from different countries. Additionally, hedging foreign exchange risk can reduce volatility in international bond portfolios. For example, if the hedged yield curve in one country is relatively flat when compared to that of another country, variable maturity strategies will target those securities from the country that has the steeper curve. The existence of different yield curves that do not

Figure 3: Global fixed income allocations by region and historical average returns for US and international fixed income indices.



Exposures as a percentage of index net asset value. Market cap in trillions (USD) as of October 31, 2012.

1-3 YEAR INDICES: 1985-2011

	US	WGBI (HEDGED)
AVG. RETURNS (MONTHLY)	0.48%	0.47%
STD. DEV. (MONTHLY)	0.54%	0.42%
REDUCTION IN VOLATILITY	_	23%

Exposures as a percentage of index net asset value. Market cap in trillions (USD) as of October 31, 2012.

Numbers may not add to 100% due to rounding. Barclays data provided by Barclays Bank PLC. Citigroup WGBI USD Indices (1–3 Years). Citigroup bond indices copyright 2012 by Citigroup. Global fixed income index allocations are based on Barclays Global Aggregate bond index. US refers to Barclays US Aggregate bond index, WBGI (hedged) refers to Citigroup WBGI USD Indices (1-3 Years). Past performance is no guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

move in lockstep provides important diversification benefits and expands the variability maturity opportunity set.

Conclusion

Plan sponsors are faced with a litany of investment options for their plan participants. Money market and stable value funds are static investment strategies that target bonds within a specific maturity range. Variable maturity strategies, in contrast, utilize information in market-based yields to target those securities with higher expected returns. Global variable maturity strategies take into account both the shape of a particular country's yield curve and how the shape differs from those of other sovereign yield curves. This approach can increase diversification by exposing a portfolio to new term structures that expand opportunities for varying maturities. For those plan participants who can tolerate more term risk in their short-term fixed income allocations, variable maturity may be an appropriate solution.

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