

Building a Cash Flow Reserve Ladder

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One challenge that confronts retirees and their advisors is how to prevent having to sell their hard-earned retirement assets at the wrong time. We have all heard the age-old investment adage “buy low and sell high,” which tells us to buy assets when they are out of favor, but to time the disposition of the assets when the markets are in your favor. Yet we also know the adage “The market can stay irrational longer than you can remain solvent.” A cash flow reserve (CFR) ladder can mitigate the challenge of selling in volatile markets.

Executive Summary

- A big retirement challenge is how to prevent having to sell hard-earned retirement assets at the wrong time.
- The all-important “buy low and sell high” discipline is put out of reach when forced to sell in a bear market.
- In tandem with a diversified portfolio, a cash flow reserve ladder provides stability and enables the flexibility to decide when to sell assets while preserving a steady income stream.

Timing is even more important for retirees since they are liquidating assets to support expenses and not reinvesting. Therefore, one goal for each retiree and their advisor is how to avoid being in a position of having to sell their retirement assets for less than their potential worth.

When structuring a retirement investment portfolio, there are two tenets that can be followed that may help achieve this goal. The first is to invest the retirement savings in a well-diversified portfolio that includes cash, fixed income, and equity investments. Preferably, the equity investment allocation should focus on providing a high and growing dividend income stream. The second is to implement a CFR ladder that can provide monthly income during retirement and can allow the retiree and their advisor the ability to dictate when to sell assets into the market. Historically, fixed income and equity assets have had a tendency to be favorably priced at different times in the market, giving the retiree the ability to time the disposition of the retirement assets when it may be most optimal. Using a ladder structure that includes a cash flow reserve for near-term expenses, and both fixed income and equity assets for intermediate and longer-term expenses, is one structure that may help achieve this goal.

The consequences of not being diversified and then forced to sell into a bear market can be significant. *Figure 1* illustrates the account values for a hypothetical retiree who retired on January 1, 2000, with \$1 million in retirement savings, withdrawing \$50,000 a year, and indexed to inflation. Consider two hypothetical retirement portfolios: one that is diversified among asset classes and uses a CFR ladder versus one that is allocated to only equity and does not use a CFR ladder.

It is clear that using a CFR ladder and being well diversified provided a benefit during this difficult retirement period, which included two significant bear markets in 2000–2002 and 2008.

Structuring a Cash Flow Reserve Ladder

A CFR ladder is comprised of three “rungs” that strive to align the least volatile assets to meet the retiree’s near-term expenses

Figure 1 | Hypothetical Illustration of Diversification and a CFR Ladder in Retirement



* 5% Morningstar Municipal Money Market Index, 5% Bloomberg Barclays 5-year Municipal Bond Index, 25% Bloomberg Barclays 10-year Municipal Bond Index, and 65% S&P 500 Index.
 **S&P 500 Index.
 Diversification and/or the use of the CFR ladder is no guarantee against loss of principal.
 Past performance does not guarantee future results.
 Source: Barclays and Morningstar. Calculated by Thornburg Investment Management.

Figure 2 | Hypothetical Cash Flow Reserve Ladder

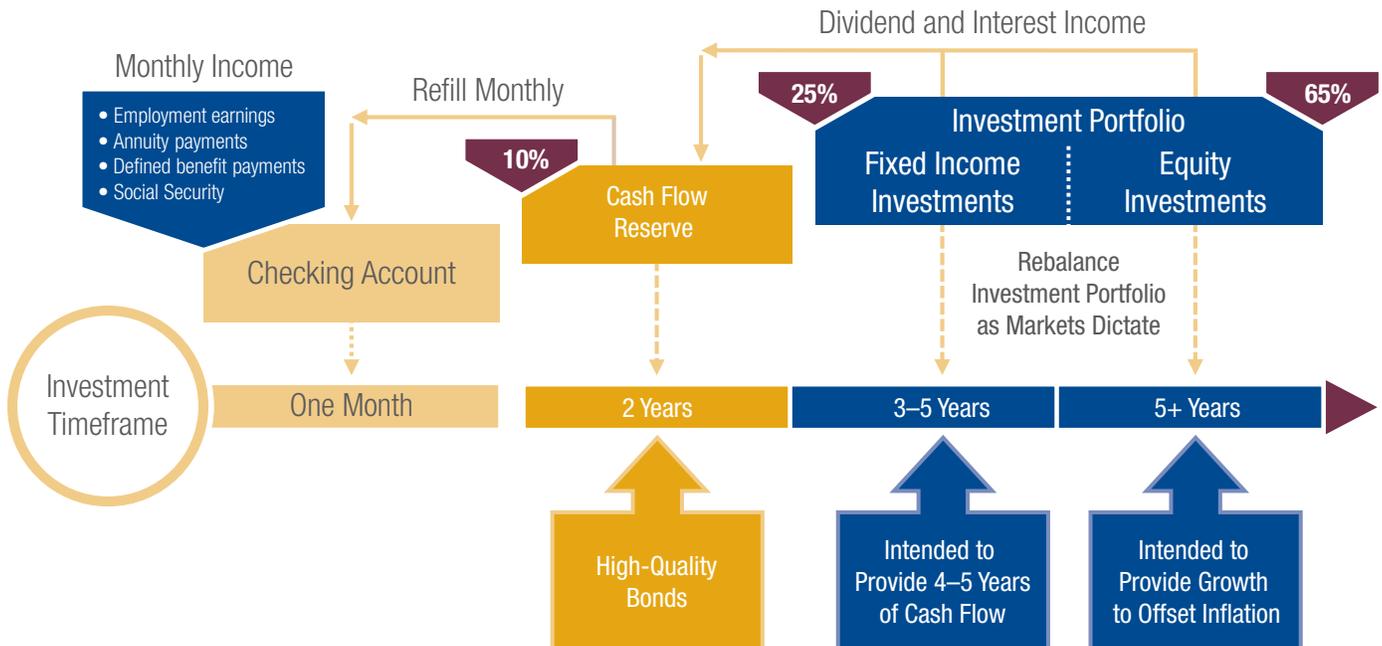


Figure 3 | Hypothetical Cash Flow Reserve Ladder

Rung of Ladder	% of Portfolio	\$ Allocation	Asset Type
Checking Account	0%	\$0	Cash from Cash Flow Reserve
Cash Flow Reserve	10%	\$50,000 \$50,000	Money Market Account Limited-term Bond Fund
Investment Portfolio			
• Fixed Income Investments	25%	\$250,000	Intermediate-term Bond Fund
• Equity Investments	65%	\$650,000	Dividend Paying Stocks

For illustration purposes only. Not indicative of a particular investment.

Figure 4 | Hypothetical Retirement Account

Account Status	Jan 1, 2000	Jan 1, 2009	Jan 1, 2020
Checking Account	\$4,167	\$5,383	\$6,388
Cash Flow Reserve	\$95,833	\$77,230	\$162,382
Hypothetical Investment Portfolio*	\$900,000	\$905,832	\$2,022,749
Total Retirement Account	\$1,000,000	\$988,445	\$2,191,520
Hypothetical Retirement Metrics			
Average Annual Return Since Retirement Inception	0%	5.51%	2.24%
Current Year's Withdrawal Amount	\$50,000	\$64,597	\$76,657
Years Since Retirement Inception	0	10	20
Spent-to-Date Amount in Retirement	\$0	\$502,247	\$1,265,787
Current Withdrawal Rate	5.0%	6.5%	3.5%

Past performance does not guarantee future results.

* 5% Morningstar Municipal Money Market Index, 5% Bloomberg Barclays 5-year Municipal Bond Index, 25% Bloomberg Barclays 10-year Municipal Bond Index and 65% S&P 500 Dividend Aristocrats Index.

Sources: Barclays, Morningstar, and Standard & Poor's. Calculated by Thornburg Investment Management.

while giving equity assets the opportunity to grow. This potential growth of the equity investments can offset the eroding effects of inflation on the retirement savings. As illustrated in *figure 2*, the three rungs include: a checking account, a cash flow reserve, and an investment portfolio. The targeted investment time horizon for each rung is shown across the bottom, and the intended refill timeline is shown across the top.

Now let's examine how each rung is designed to work and what types of investments might be chosen for each.

Checking Account

On the first of each month, the retiree transfers funds from the cash flow reserve into the checking account to pay for expenses. This provides a monthly cash flow which, from a behavioral finance perspective, is very healthy and allows the retiree to budget for monthly spending accordingly.

Cash Flow Reserve

The cash flow reserve is comprised of two years' worth of spending needs in short-term assets, such as a money market account and possibly a limited-term bond fund. The retiree draws a check from the cash flow reserve to deposit into the checking account at the beginning of each month. The relative liquidity of this rung can provide the retiree with the ability to cover two years of spending. Having two years' worth of disposable assets can be key to helping alleviate ill-timed selling into a bear market. Once the distribution phase begins, we prefer to see dividend and interest income not reinvested during the year, but rather transferred into the cash flow reserve. This naturally replenishes the cash flow reserve, and any excess can be reinvested at year end.

Investment Portfolio

Fixed income investments have historically performed better when equities are out of

favor; therefore, having a balanced portfolio of fixed income and equity investments can help alleviate selling retirement assets at a less opportune time in order to fund retirement spending (when liquidated). In this rung of the ladder, there will typically be enough fixed income investments to pay for an additional four to five years of spending. Also included in this rung is an allocation to equity investments, which have historically been more volatile than fixed income assets but also provide the potential for higher returns over time. While the equity investments may provide the necessary growth to help offset the eroding effects of inflation in retirement, retirees also need to have the flexibility to sell assets when the markets are attractively valuing those investments. The assets from this rung are used to replenish the funds in the cash flow reserve as needed. Again, the goal is to have the flexibility to sell either the equity or the fixed income assets at an opportune time without compromising a steady income stream.

Asset Allocation Alternatives

Now that we know the basic structure and operation of a CFR ladder, let's discuss just a few of the many ideas for how the retirement assets can be allocated to each rung. The most appropriate investments will vary depending on an individual's needs and investment objectives and should be discussed with a financial advisor. For illustration purposes, let's assume a retiree has a \$1 million portfolio and wishes to spend \$50,000 each year, indexed to inflation. *Figure 3* is an example of how the savings could be allocated among the various rungs of the ladder.

In this example, the \$100,000 placed in the cash flow reserve is evenly divided between a money market account and a limited-term bond fund. For taxable accounts, municipal money market funds and/or municipal limited-term bond funds can be attractive. Remember that the primary goal of this rung is principal protection.

The investment portfolio is divided into two separate components. The \$250,000 allocation to fixed income represents 25% of the assets and, if need be, can provide up to five years of additional spending at \$50,000 per year. The intermediate-term bond fund portion has a time horizon of

five to 10 years, and should be conservatively managed with a primary goal of principal protection.

The \$650,000 in the equity portion of the investment portfolio represents 65% of the overall asset allocation of the portfolio. This portion is intended to provide the possibility of long-term growth that may offset the eroding effects of inflation. The CFR ladder approach allows the retiree and advisor time to liquidate these assets into potentially more favorable markets. Using a high and growing dividend-paying stock fund in this rung may provide the double benefits of a growing dividend stream to contribute to the current income needs of the retiree and the potential growth that is historically associated with equity investments.

Let's return to the hypothetical retirement that began on January 1, 2000. At that time, the retiree chose to spend \$50,000 per year and indexed to inflation. *Figure 4* illustrates the values of the hypothetical portfolio and the different allocations as they appeared on January 1 of the first, 10th, and 20th year of retirement.

On January 1, 2000, the retiree had just transferred \$4,167 into the checking account to cover the monthly expenses, with \$95,833 in the cash flow reserve, and \$900,000 in the investment portfolio for a total value of \$1 million. The current year's spending is the \$4,167 times 12 months for \$50,000, and the spent-to-date amount is zero since the retirement just started. Now moving through the years to January 1, 2009, following the significant declines of 2008, the retiree had just placed \$5,383 in the checking account, and the cash flow reserve was down to \$77,230 since a decision was made not to sell any of the assets in the investment portfolio in late 2008 to replenish the cash flow reserve. The preference was to hold off selling any assets until the markets stabilized. The total portfolio was down to \$988,445, which approximates the \$1 million originally invested in the portfolio. Not to be forgotten, the retiree has spent \$502,247 during the first 10 years of retirement and the current spending rate is 6.5%. This rate, although a bit elevated, is still reasonable given the recent poor market performance, but will have to be watched closely in the following years.

By the beginning of January 2020, the account had recovered nicely to \$2.02 million in value, given improved market conditions. In addition, the retiree was not forced to sell any of their retirement assets during the 2008 bear market at depressed prices. Monthly spending for 2020 is up to \$6,388, and the current withdrawal rate has been reduced to a very healthy 3.5%. All in all, the CFR ladder performed well, given the very challenging markets that have impacted this 20-year hypothetical retirement period.

In summary, utilizing the structure of a CFR ladder with a well-diversified portfolio during the distribution phase of retirement can provide retirees with the necessary foundation and discipline to alleviate selling their retirement assets into a bear market. The cash flow reserve has the ability to provide two years of liquidity, thus allowing expenses to be met readily. The investment portfolio has a mix of intermediate-term fixed income and equities focusing on a high and growing dividend income stream that may be liquidated during opportune times in the market to refill the cash flow reserve. Hopefully, this type of structure can help the retiree stay on plan and meet expenses. ■

Following a dividend-focused strategy does not assure or guarantee better performance and cannot eliminate the risk of investment losses.

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The cash flow reserve structure is based upon the work done by Harold Evensky and Deena Katz of Evensky and Katz in Coral Gables, FL.

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Rebalancing – refilling the money market fund with an allocation from the equity account at the beginning of each year.

Monthly Cash Flow – monthly check withdrawn from Cash Flow Reserve and assumed placed into checking account at the beginning of each month.

Consumer Price Index (CPI) – Index that measures prices of a fixed basket of goods bought by a typical consumer, including food, transportation, shelter, utilities, clothing, medical care, entertainment and other items. The CPI, published by the Bureau of Labor Statistics in the Department of Labor, is based at 100 in 1982 and is released monthly. It is widely used as a cost-of-living benchmark to adjust Social Security payments and other payment schedules, union contracts and tax brackets. Also known as the cost-of-living index.

The S&P 500 Index is an unmanaged broad measure of the U.S. stock market.

The Bloomberg Barclays 5-Year Municipal Bond Index covers USD-denominated, investment-grade, tax-exempt bonds with maturities between four and six years. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds.

The Bloomberg Barclays 10-Year Municipal Bond Index covers USD-denominated, investment-grade, tax-exempt bonds with maturities between eight and twelve years. The index has four main sectors: state and local general obliga-

tion bonds, revenue bonds, insured bonds, and prerefunded bonds.

The S&P 500 Dividend Aristocrats Index is equally weighted and measures the performance of large cap, blue chip companies within the S&P 500 Index that have followed a policy of increasing dividends every year for at least 25 consecutive years.

Morningstar Municipal Money Market category covers portfolios that invest in short-term municipal money market securities that are often exempt from some federal and state taxes. These funds provide current income and aim to preserve capital.

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