Asset/Liability Matching and Portfolio Management for Beginners

A Definition and Explanation of the Asset/Liability Matching Strategy

Asset/Liability matching is a strategy that is perhaps best known in the insurance industry but that can be useful to individual investors, as well. Image Credit: Benjamin Van Der Spek / EyeEm / Getty Images

By Joshua Kennon
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As your net worth begins to blossom and you start to accumulate wealth, it is possible that you will encounter a concept known as asset/liability matching in the context of managing your portfolio. While it is a familiar concept to insurance companies and other financial institutions, the use of asset/liability matching can be a powerful tool for investors as they work to convert the capital they've amassed into either or both lump sums of cash or streams

of passive income from sources such as dividends, interest, and rents for the purpose of meeting expected needs.

In this brief introduction, I want to walk you through a basic definition of asset/liability matching, explain how it might be used in the real world, and highlight, in broad non-specific academic terms, a handful of the potential benefits of incorporating the approach into a long-term financial plan when and if appropriate.

What Is the Definition of Asset/Liability Matching?

In its purest form, asset/liability matching is the practice of attempting to project the specific timing of cash needs, particularly outflows, by an investor and then making capital allocation decisions in a way that places an emphasis on increasing the probabilities that the assets in the portfolio will be sold or liquidated, producing sufficient passive income, or in some other way experiencing a liquidity event that will make sure the greenbacks are there when the investor goes to reach for them in the time of his or her need.

Part and parcel of an intelligently-designed asset/liability matching program is attempting to generate satisfactory risk-adjusted results within the confines of the restrictions arising from the expected cash flow timing needs.

Examples of What an Asset/Liability Matching Strategy Might Look Like in the Real World

If you are a bit confused about how this would work, let's look at two fictional scenarios that might resemble something you'd see in the real world, walking through what an asset/liability matching strategy might encompass under each set of circumstances.

Illustration 1: Imagine you are a successful entrepreneur. You have a 5-year-old son and a 2-year-old daughter. You want to set aside a portion of your profits to pay for your children's college educations. What you need is a series of lump sum cash amounts to be available at specific dates, and at specific times, in the future. For your son, you need a lump sum available in 14 years to cover his freshman year of college, a lump sum in 15 years to cover his sophomore year of college, a lump sum in 16 years to cover his junior year of college, and a lump sum in 17 years to cover his senior year of college. In year 17, you also need the first lump sum for your daughter to cover her freshman year of college. In year 18, your son should have graduated and no longer be reliant upon you for financial support so the only expected outflow should be your daughter's sophomore year of college. In year 19, you have your daughter's junior year of college. Finally, in year 20, you have your daughter's senior year of college.

An asset/liability matching program would entail building a portfolio that could handle this liquidity timing. For example, a fair analysis of historical stock market behavior tells you that any individual stock, or group of stocks, can easily decline in market value by 33 percent or, in some cases, 50 percent or more, over a very short span of time even if the underlying business is thriving.

It's simply a result of the auction mechanism inherent in the capital markets; a price that investors must pay for the opportunity to potentially compound their wealth in terms of real purchasing power over decades. Given this fact, absent any relevant circumstances that might

indicate an exception is in order, a good rule of thumb when dealing with a static pool of capital that must be managed in isolation is to avoid having any funds you will need within the next sixty months (five years) invested in common stock or preferred stock unless you believe the dividend income alone will be sufficient to meet the liquidity needs even were some of the stocks in the portfolio to experience a dreaded dividend cut.

Illustration 2: Imagine you are a professional who amasses real estate on the side. You negotiated the purchase of a $2,000,000 office building in the Midwest with the former owner, who allowed you to buy the property by coming up with a $400,000 down payment then making regular monthly payments on the remaining $1,600,000 as if it were an amortizing mortgage over thirty years.

However, after 7 years, the entire remaining balance outstanding is due in full. You would prefer to pay off the building entirely at the time of the balloon maturity and plan on taking any surplus cash flow from the property, combined with your other income sources, and building it up so that it is there specifically on the maturity date and you can pay the debt in full without needing to refinance the loan with a financial institution. An asset/liability matching approach would involve selecting investments, even if it meant lower returning investments, that offered the best opportunity for you to be able to do that all things considered.

An Overview of Some of the Pros and Cons of Asset/Liability Matching

The biggest advantage of using an asset/liability matching approach in portfolio management is that it can allow you to significantly reduce many of the risks you might face as an investor if the program is designed and implemented wisely. For example:

- **Good Asset/Liability Matching Can Reduce Reinvestment Risk:** Reinvestment risk refers to the risk that you won't be able to reinvest the cash flows from an investment at the same or higher rate of return as the initial investment, resulting in a lower overall compounding rate than you projected or need. With an asset/liability matching approach, you might choose something like a zero-coupon bond rather than a traditional bond. (A zero-coupon bond has greater duration risk due to higher sensitivity to interest rates but that ultimately doesn't matter given you have no intention or need to sell the asset prior to maturity subject, of course, to the necessary caveats regarding credit quality, inflation, etc.)
- **Good Asset/Liability Matching Can Reduce Liquidity Risk:** By introducing a hard deadline on when funds must be available, an asset/liability matching strategy tends to put an emphasis on safety of principal, or capital preservation, more than an open-ended investment mandate might. This can help the investor or portfolio manager, in the case of something like an individually managed account or when dealing with an asset management company, better determine which types of securities, maturities, and other features of a given security or asset class are most appropriate. Of course, this isn't always foolproof; e.g., witness the number of investors who found themselves holding things like auction-rate securities during the Great Recession collapse of 2007-2009, some of whom lost millions of dollars in what they erroneously believed to be a highly liquid cash equivalent.
- **Good Asset/Liability Matching Can Help Defend Against Action Bias:** Once you have developed and implemented a plan that involves asset/liability matching, it can be easier to emotionally handle significant market volatility because your eyes are

fixed on the end date. This can mean the avoidance of making dumb mistakes when the economic storm clouds gather; an extremely important factor that many investors discount. If you doubt how powerful this can be, consider one horrifying statistic from mutual fund research giant Morningstar: According to their calculations back in 2014, the typical investor was losing a whopping 2.5 percent per annum due to cash flow timing issues. (Factors such as these are one of the reasons that industry giant Vanguard estimates the "potential value added" of hiring an affiliated wealth manager who followed "best practices in wealth management" at "About 3 percent in net returns" per annum, more than offsetting the advisory fee. The entire white paper is worth a read. It's called *Putting a value on your value: Quantifying Vanguard Advisor's Alpha, September 2016* by Francis M. Kinniry Jr., CFA, Colleen M. Jaconetti, CPA, CFP®, Michael A. DiJoseph, CFA, Yan Zilbering, and Donald G. Bennyhoff, CFA. The specific chart referenced here is Figure 1 on page 4 of 28).
- **Good Asset/Liability Matching Can Help Reduce Risks from Economic and Capital Market Conditions:** If you need to understand the appeal of asset/liability matching, look no further than the returns earned by many insurance companies around the world as countries, particularly Japan and as well as many European countries, struggle with perpetually low, and in some cases, negative, interest rates. These insurance companies made promises in their policies based on certain return assumptions on their bond portfolios that appeared entirely reasonable in light of nearly all past experience but which turned out to be unattainable in a world where their surplus capital wasn't capable of earning much due to the monetary policy of central banks. In fact, had you told the executives of these companies that they'd be going broke, or suffering severe profitability impairment, in a world of seemingly endless 1 percent or lower yields on short-term debt securities, they would have laughed at you. Yet, that's what happened. With an asset/liability matching program, the decision is made to focus on being able to meet the promises, measured in nominal purchasing power, that were made so the correct amount of dollars or Euros, pound sterling or Swiss Francs, yen or whatever other currency denoted, are available in a sufficient amount when needed.

Common Situations in Which You Might Consider Employing an Asset/Liability Matching Strategy

Here are a few situations or circumstances in or under which you might consider developing and implementing an asset/liability matching strategy:

- Planning for retirement; specifically, having your accounts transition to a passive income emphasis rather than a capital accumulation focus as you near the date on which you intend to begin taking withdrawals.
- Funding a college education for your children, grandchildren, nieces, nephews, or other heirs or beneficiaries.
- Planning for the purchase of a home, second home, or investment property.
- Planning for the maturity of a mortgage or other debt that has a balloon payment component in the promissory note.
- Making regular tax-free gifts up to the gift tax limits as part of a multi-year or multi-decade estate tax mitigation strategy intended to lower the value of your estate.
- Funding potential payouts for lawsuits or other liability exposures that might take years to resolve.

- Setting aside funds to pay for a child's wedding so when your son meets his future husband or wife, or your daughter meets her future husband or wife, the cost of the reception and, perhaps, honeymoon are covered.
- Creating a pool of capital that will eventually be used to fund the start-up of a business or an expected investment.
- Setting up a reserve of capital that will be used to cash out a partner in a limited partnership, a member in a limited liability company, or a stockholder in a corporation at a predetermined time, such as the retirement of a doctor for a closely held medical practice or a partner at a legal firm.
- Putting aside money to be used to pay an expected tax bill.
- Coming up with contractually guaranteed or promised amounts on specific dates as part of a derivatives strategy.

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