Liquidity. Longevity. Legacy.

A purpose-driven approach to wealth management

UBS Chief Investment Office
Global Wealth Management White Paper
Ultra High Net Worth

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Dear reader,

Mike Ryan, CFA

Michael Crook, CAIA, CRPC

"Any fool can make a fortune.
It takes a man of genius
to keep it after it's made."
–Cornelius Vanderbilt

In truth, the Commodore gave short shrift to the difficulty of making a fortune. Currently, 0.5% of US households have a net worth of USD 15mn. One tenth of one percent of households (80,000 or so families) have a current net worth that exceeds USD 50mn. Perhaps 36,000 have a net worth of USD 100mn. Fewer than 1,000 have a net worth over USD 1bn. Fortunes are hard to come by.

Vanderbilt underestimated the difficulty of creating a fortune, but he was correct about the difficulty of keeping one. Most fortunes dissipate in relatively short order. In this white paper, we explain how wealthy investors can utilize our unique Liquidity. Longevity. Legacy. (3L) strategy to manage their assets and accomplish their objectives through all market cycles:

- **Liquidity** to help maintain your lifestyle
- **Longevity** to help improve your lifestyle
- **Legacy** to help improve the lives of others

Our unique approach to wealth management helps you clearly understand where your assets are—and why. Through this process and the plan we create together, you'll have the comfort of knowing you have all you need—for today, for tomorrow, and for generations to come.

Regards,

Mike Ryan, CFA
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Our approach

Our approach to wealth management is built on the foundation of your financial objectives.[1] The approach allocates family wealth into three strategies that we call the 3Ls:[2]

Liquidity

Assets and resources in the Liquidity strategy are allocated to match expenditures in order to provide stable cash flow for the next two to five years.

Longevity

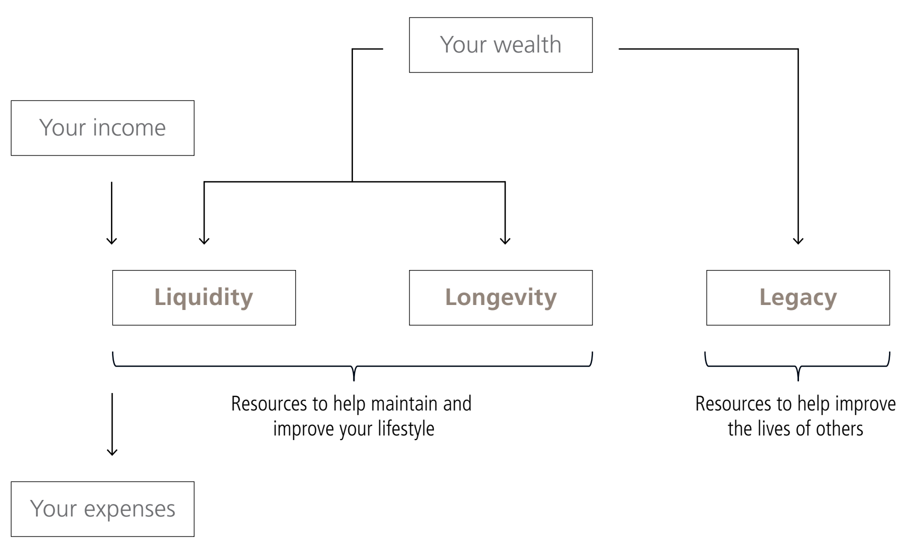
The Longevity strategy is sized to include all of the assets and resources the family plans to utilize for the remainder of their lifetimes, which provides a clear picture of what future spending objectives will cost. It is also managed with that goal in mind—a well-diversified portfolio, but with an eye to inflation and managing downside risk.

Legacy

Assets that are in excess of what the family members need to meet their own lifetime objectives. The Legacy strategy clarifies how much a family can do to improve the lives of others—either now or in the future. Investment portfolios in the Legacy strategy are typically invested fairly aggressively since the time horizon associated with the portfolio can usually be measured in decades, and might also include business interests, collectibles, charitable funds, or second homes.

At its core, the 3L strategy is a blueprint for families who want to understand how they can better allocate all of their assets and liabilities to meet their objectives. It is designed to provide clarity for all financial decisions embedded in the family's specific goals and objectives.

The relative sizing of each strategy—Liquidity. Longevity. Legacy.—changes over an investor's life cycle. Pre-retirement, an investor would not hold many financial assets in the Liquidity strategy, as current income would pay for all expenses. The Longevity strategy would concurrently be in the process of being filled through savings and growth, and the Legacy strategy would probably be empty for most of that period. The natural result is that nearly all of the investor’s assets would be invested in the Longevity strategy.

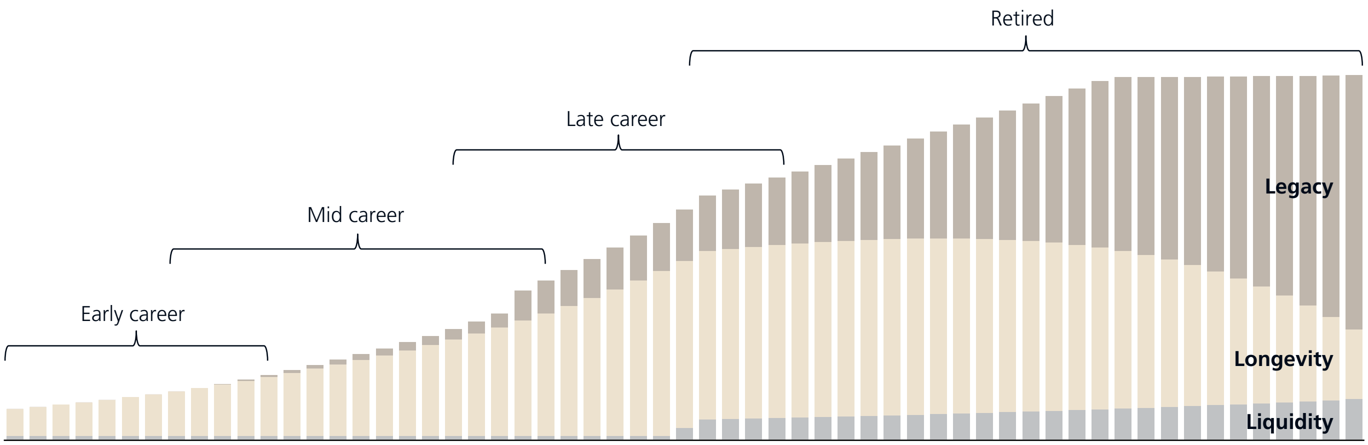


Closer to retirement, the Longevity strategy should be completely funded and some assets might now also be in the Legacy strategy. However, assets earmarked for spending over the next few years have also started to move into the Liquidity strategy, which has a natural de-risking effect for the overall strategy.

Finally, an investor will slowly spend down his or her Longevity assets during retirement. At the same time, Legacy assets are unencumbered so they can appreciate in value. In fact, investors who have large Legacy strategy assets, relative to their spending, will actually find that their average risk increases during retirement, as Legacy assets comprise a growing portion of their overall assets. Although this might seem to conflict with conventional wisdom, it is fairly intuitive once assets have been segmented using this framework. **Figure 1** illustrates this changing segmentation of assets over time for a hypothetical investor.

Fig. 1: The relative size of each strategy and the resources that they contain change throughout the investor's life cycle

Changing segmentation for a hypothetical UHNW investor



Early to mid career	Mid to late career	Retired
Liquidity strategy	*Liquidity strategy*	*Liquidity strategy*
Current income	Current income	Retirement income
Emergency savings	Emergency savings	Investment assets to match spending
	Borrowing facilities	Borrowing facilities
Longevity strategy	*Longevity strategy*	*Longevity strategy*
Earnings potential	Earnings potential	Investment assets
Disability insurance	Investment assets	Primary residence
Investment assets	Primary residence	Property & casualty insurance
Business interests	Property & casualty insurance	Pensions
Primary residence & mortgage	Pensions	
Legacy strategy	*Legacy strategy*	*Legacy strategy*
Life insurance	Investment assets	Investment assets
Children's educational savings	Business interests	Business interests
	Other home(s) and mortgage(s)	Other home(s) and real estate
	Life insurance	Children's trusts
	Children's trusts	Grandchildren's trusts
	Donor-advised fund	Life insurance (estate tax)
		Donor-advised fund

Source: UBS

Why can Liquidity. Longevity. Legacy. work well for wealthy families?

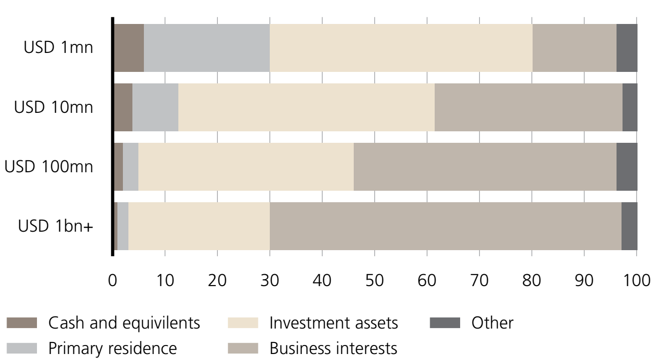
Complex balance sheets

The source of a family's wealth generally retains a meaningful place on that family's balance sheet. Whether it's ownership in business interests, a concentrated stock position, or significant real estate holdings, wealthy families have exposures and risks that impact their total wealth. In fact, investment assets often comprise a minority of balance sheet assets for most families with a net worth above USD 10mn in the US **(see Fig. 2).**

Figure 3 illustrates a 3L modified balance sheet for a hypothetical UHNW family. The 3Ls bring together tangible and intangible assets and liabilities, as well as the family's available resources, to create a high-level snapshot. Merging these elements helps us to identify how the components that make up a family's wealth can work together over time and across the 3Ls.

Fig. 2: As a family's net worth increases, investment assets generally comprise less of the balance sheet assets

Composition of balance sheet assets for US families by net worth, in %



Source: Federal Reserve Survey of Consumer Finances (2016), UBS

Portfolio selection

Many wealthy families face a fortunate, but perplexing situation. They can hold 100% of their assets in cash and, assuming inflation remains low and stable, still meet all of their lifetime spending objectives. They can also invest 100% of their assets in equities and, even assuming normal bear market corrections of 30–40%, still meet all of their lifetime spending objectives. In other words, their goals don't provide much guidance in regards to selecting the optimal asset allocation strategy.

A 100% equity or 100% cash strategy might appear 'safe,' but both inherently have a small probability of failure—even for very wealthy families. Any strategy that has a small probability of failure will eventually fail (hence the difficulty in maintaining wealth for multiple generations). Families that focus on short-term safety will find the purchasing power of their assets have eroded over time. Families that only hold "long-term assets" will find that in severe contractions, their investment assets have lost 50% or more of their value and their spending policies are no longer sustainable.

The 3L approach provides the fundamental underpinnings for optimizing an investment strategy when a family's capacity for risk appears to be very high. It is also designed to provide a barrier against ruin—at least from the investment perspective. By segmenting assets into the Liquidity. Longevity. Legacy. strategies (which are then allocated appropriately according to their purpose) a family's investment strategy can be built organically from the ground up – employing a dynamic framework that takes advantage of the family's capacity to take risk while also maintaining an important buffer for spending during volatile periods.

Fig. 3: The 3Ls incorporate tangible and intangible assets and liabilities alongside the family's available resources

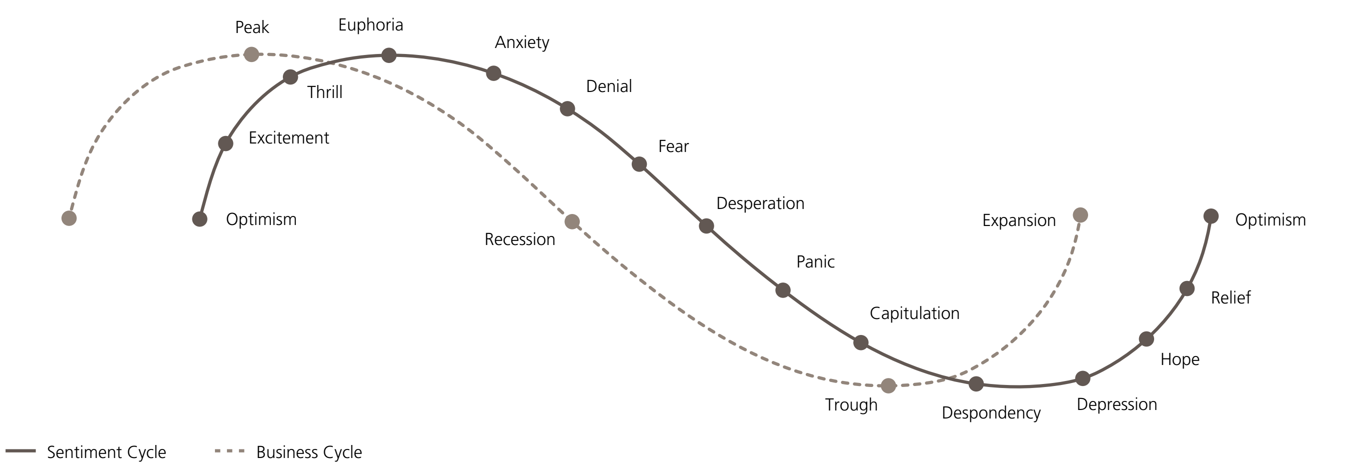
3L Modified balance sheet for a hypothetical UHNW family

Assets and resources			Goals and obligations	
1%	**Liquidity strategy**			**2018–2020**
1%	Emergency savings	USD	– Total expenses, 2018	(USD)
			– Total expenses, 2019	(USD)
	– Total income, 2018	USD	– Total expenses, 2020	(USD)
	– Total income, 2019	USD		
	– Total income, 2020	USD	*Outstanding balances*	
	– Borrowing facilities (amount available)	USD	*Borrowing facilities*	*(USD)*
32%	**Longevity strategy**			**2021–Lifetime**
27%	Longevity portfolio (investment assets)	USD	– Save and invest surplus income	
5%	Primary residence	USD	– Protect assets from physical & legal risks	
			– Real estate and land purchases	(USD)
	– Earnings potential (2021–retirement)	USD	– Retirement spending goals and needs	(USD)
	– Pensions	USD	– Healthcare needs in retirement	(USD)
	– Property & casualty insurance			
	– Durable POA & healthcare proxy		*Outstanding balances*	
			Mortgage	*(USD)*
67%	**Legacy strategy**			**Now and beyond lifetime**
17%	Legacy portfolio (investment assets)	USD	– Minimize tax costs	
47%	Business interests + succession plan	USD	– Review and update estate documents	
3%	Other homes and real estate	USD	– Create and fund grandchildren's trusts	(USD)
			– Use annual gift-tax exemption	(USD)
	Off balance sheet assets		– Annual charitable contributions	(USD)
	– Children's trusts	USD		
	– Life insurance	USD	*Estate tax*	
	– Donor-advised fund	USD	*Federal estate tax liability (estimate)*	*(USD)*

Source: UBS

Fig. 4: Investor emotions often drive counterproductive actions

Illustrative investor sentiment cycle



Source: Fisher, G. S. (2014) Advising the Behavioral Investor: Lessons from the Real World, in Investor Behavior: The Psychology of Financial Planning and Investing (eds H. K. Baker and V. Ricciardi), John Wiley & Sons, Inc., Hoboken, NJ, USA.

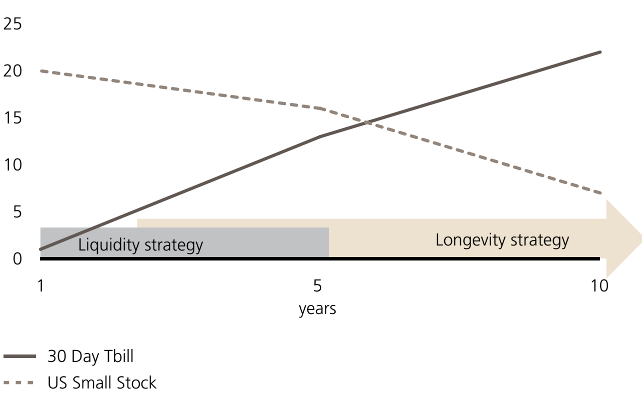
Behavioral finance

In finance and economics, we assume that individuals and investors behave rationally, as modeled by mathematicians and economists. But the reality is very different. Information and anticipation of future market performance produce strong emotional reactions **(see Fig. 4).** The excitement and subsequent fear of loss can drastically change investors' short-term willingness to allocate their assets effectively—often at the expense of their long-term goals.

For example, fear of a market downturn can cause investors to become risk-averse and to de-risk during times when they should be invested. On the other hand, anxiety associated with selling losses, as well as the regret that comes with acknowledging a potential investment mistake, causes investors to freeze and to hold on to a losing position instead of reinvesting in a better alternative. A point of panic comes next as they realize that they need to act, but rather than buying at a discount, they sell.

Fig. 5: Cash is safer in the short run, but equities are safer in the long run

Probability of an inflation-adjusted 5% or greater loss for various time periods, in %



Source: Morningstar, UBS

Similarly, given sustained positive performance, some investors get excited by small gains and sell too soon—this is called the disposition effect. For others, greed and overconfidence take over, and many investors frequently have a hard time selling assets that have outperformed and instead choose to add risk to their portfolios. Examples might be investors adding exposure to technology in December 1999, adding exposure to financial services in October 2007, and selling equity exposure in March 2009. Emotions overruled logic and facts; and led to underperformance.

Rather than ignoring these immutable facets of the human condition, the 3L approach aims to turn one behavioral bias—mental accounting—from an obstacle into an advantage. Mental accounting describes a tendency that leads people to segment their assets and spending goals into distinct parts and treat those parts differently without thinking of the whole. This proclivity can lead to suboptimal decision-making, such as holding a credit card balance at a 15% interest rate when this could be paid off by an investment that yields 2%. The 3L framework takes advantage of this segmenting inclination by separating assets to meet specific spending objectives. The result is an intuitive strategy that creates a clear connection between assets and the objectives for those assets.

This design helps avoid costly mental mistakes (especially during difficult market environments) by providing peace of mind that assets earmarked for short-term spending needs are insulated from market risk. This is the crux of the Liquidity strategy. It contains assets that are expected to maintain their value (even in volatile, bear markets) so that they are available to help cover the next 2–5 years of expenses.

The Liquidity strategy helps investors maintain their Longevity and Legacy strategy's long-term growth objective, knowing those assets won't be used for many years **(see Fig. 5).** During market downturns (when most poor investment decisions are made) this mental accounting is invaluable.

Benefits of the 3L approach

Shows improved performance relative to other approaches

A fundamental benefit of the 3L approach is that it helps an investor select the right asset allocation strategy—at the right time. Although selecting the right asset allocation might sound trivial, it's not. For instance, investors frequently don't account for assets like human capital when allocating to fixed income and therefore hold suboptimal portfolios.

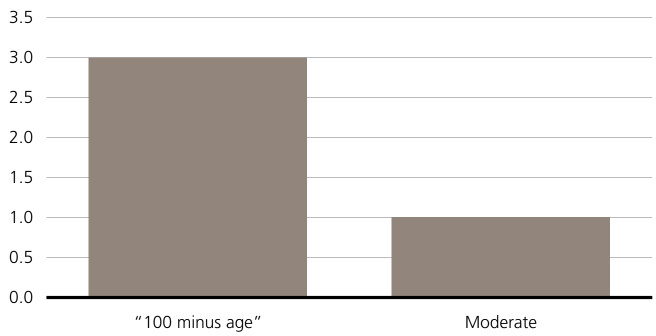
The impact is real: We estimate increasing the equity portion of a portfolio by just 10 percentage points, relative to fixed income, will lead to an increased average return of 0.5% annually. Of course, risk has to be managed appropriately—an additional 0.5% per year isn't worthwhile if it subjects a household to sequence risk at the start of retirement. Sequence risk refers to the risk that highly negative returns at the beginning of retirement will derail the remainder of the retirement plan and put the family at risk of running out of money. That's one reason why the 3Ls work so well. The strategy naturally adjusts over the life cycle to increase or decrease risk as appropriate.

We used Monte Carlo analysis to compare two common allocation strategies to the 3Ls for a 45-year-old couple: (1) a static balanced portfolio strategy and (2) a "100 minus your age" strategy. A Monte Carlo analysis provides a simulation of investment returns, contributions, and withdrawals that mimics what an investor might experience over years and decades. Monte Carlo simulations are a vital part of investment planning, because they allow us to account for investment return variability, providing a better assessment of investment success across a number of different market environments.

We found the 3L approach leads to an increase in risk-adjusted outperformance of about 1% annually when compared to a static balanced portfolio. Performance relative to a "100 minus age" strategy is even more significant—over 3% per year on average, mainly because using a "100 minus age" strategy leads to holding far-too-conservative portfolios once the couple reaches their 50s and 60s **(see Fig. 6).**

Fig. 6: The 3L approach shows more favorable outcomes relative to other strategies

Simulated equivalent alpha for 3L, in %



Note: Outcomes simulated for scenario described in the text. Equivalent alpha is a net present value metric that estimates the annual outperfomance necessary to match the 3L strategy on a net present value basis. For example, a 65-year-old would have (100-65) 35% of their portfolio in stocks. The 'Balanced portfolio' assumes a constant 60% stock / 40% bond allocation, regardless of age or stage in life.
Source: UBS

The primary reason that the 3L approach typically outperforms is because other strategies don't effectively address the financial decisions that are embedded in a family's goals and objectives (e.g., lifetime spending). Little or no distinction is made between the assets that are intended to be used today (e.g., near-term) and the assets that are intended to be used in 10- 20- or 30-years (certainly not the assets that are unlikely to ever be used during their lifetime). The various purposes for financial assets becomes homogenized and abstract. As a result, the investment and allocation decisions are misaligned with the family's objectives and capacity for risk which, in turn, produces suboptimal portfolios across time.

Segmenting helps manage through bear markets

Most investors hate equity bear markets, but a bear market during a working career tends to be an important opportunity to invest at a lower price point. Bear markets are emotionally difficult, but highly accretive to long-term wealth.

Retirees, and portfolio managers for retirees, have a more difficult challenge. By definition, retirees don't have labor market income to add to their portfolios during a bear market. They are doing the opposite—relying on their portfolios for income. A bear market early in retirement, coupled with portfolio distributions, can lead to sequence risk.

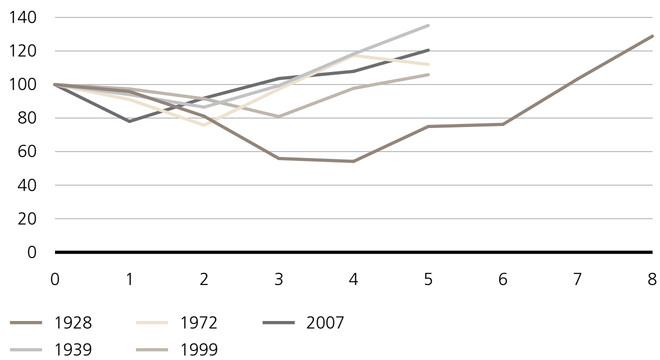
Investors have faced five multi-year US equity market declines in the last 90 years. Those declines started in 1928, 1939, 1972, 1999, and 2007. The Great Depression-era decline that started in 1928 was far and away the worst. A growth portfolio comprising 30% US Treasuries and 70% US equities declined by half and didn't fully recover for seven years. The declines of 1939, 1972, 1999, and 2007 were smaller in magnitude, but still resulted in portfolio drawdowns of 20–30% and took three to four years to reach full recovery **(see Fig. 7).**

The tech crash that started in 2000 posed the most recent example of sequence risk for investors. Assuming a 60/40 stock/bond portfolio and an initial 5% inflation-adjusted distribution, 1999 retirees' portfolios have dropped to half of their original values, and absent any spending cuts those retirees are now taking 13% withdrawals per year **(see Fig. 8).**

The 3L approach helps prevent sequence risk by enabling investors to spend out of their Liquidity portfolios during drawdowns. By spending out of their Liquidity portfolios, investors can allow risk assets held in their Longevity strategy time to recover before needing to sell them for spending needs. Looking back over the last 80 years, our analysis indicates the 3L strategy would have added an average of 0.25% in annual alpha during each bear market cycle.

Fig. 7: Most equity market sell-offs recover in less than four years

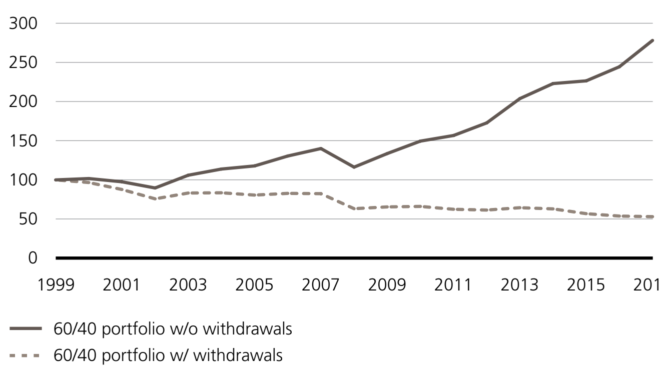
Drawdowns and recovery periods (in years) for multi-year US equity market corrections



Source: Morningstar, UBS

Fig. 8: 1999 retirees experienced negative sequence risk

Hypothetical portfolios, 1999–2017



Source: Morningstar, UBS

Tax impact is a key consideration

From a portfolio management standpoint, one of the most important factors is tax awareness. High pre-tax returns can look much worse after taxes are paid, and the US tax code provides opportunities to produce alpha by segmenting Legacy assets from assets a family will use during their lifetimes.

For instance, under current tax law, beneficiaries receive a step-up in cost basis when they inherit Legacy assets. The “step-up” means that beneficiaries inherit the assets with a basis that represents the value at which they receive the assets, instead of the basis at which the assets were originally purchased. The embedded tax obligation effectively disappears at the time of transfer.

Actively managed mutual funds create tax burdens of about 1% per year for investors, making them inappropriate for use in the Legacy strategy.[3] Legacy strategy assets should be invested in a way that defers taxes as long as possible and allows the investor to maintain control over when taxes are incurred. Therefore, single-stock positions, exchange traded funds (ETFs) and separately managed accounts tend to provide a good deal of after-tax alpha vs. actively managed mutual funds. Our estimate of total after-tax alpha, proactively managed, is about 1.5% per year, broken into a 1% gain from avoiding costly turnover in active management and another 0.5% from proactively harvesting losses in order to defer gains.[4]

Applying behavioral finance can help achieve better performance

One of the best-known investors of the last century, Benjamin Graham, observed that "The investor's chief problem—and even his worst enemy—is likely to be himself." Investors overtrade, chase returns, panic, and generally buy high and sell low—resulting in underperformance. For instance, in "Trading is Hazardous to your Wealth[5]," Brad Barber and Terrance Odean found average households turned over 75% of their equity portfolios annually and underperformed by 1.5% per year.

One way of minimizing risk related to costly emotional behavior is to establish a disciplined investment approach such as rebalancing. While selling top-performing asset classes and buying worse-performing can be counterintuitive, establishing a disciplined rebalancing approach within the 3L framework can add an additional 0.8% alpha on an annual basis.[6]

The 3L framework isn't a panacea for solving our own emotional biases, but it does provide a concrete approach for decision making that investors can fall back on during times of market stress and distress. By embedding major financial decisions in the family's specific goals and objectives, instead of trying to time markets, the framework provides guidance for action during difficult periods.

Managing the 3L strategies

The final part of this report provides an in-depth discussion regarding how to allocate and manage the Liquidity. Longevity. Legacy. strategies. The difference between implementing the strategies correctly vs. incorrectly can be substantial in regard to meeting objectives and after-tax net worth.

You, your family, and the lives of others

Your goals should form the basis of nearly all investment and estate planning decisions. Developing and updating your goals requires the deliberate action of asking yourself what your desired lifestyle includes and how you want to improve the lives of others. Some goals, like to update and sell your home, pay for college, or make charitable contributions are easy to define. Other goals, like ensuring potential health issues don't burden your children, are often less clear.

Identifying your goals and objectives, no matter how abstract, is like marking points on a map—it's essential for finding (or creating) a path that points in the right direction. The 3L approach uses those points to allocate and manage your assets and resources effectively—throughout time—in order to reduce the role of luck in your investment success and help you make better decisions.

The Liquidity strategy[7]

The Liquidity strategy contains the assets that a family plans to use to meet near-term spending objectives. However, this strategy is a replacement for outside income. Investors don't need to hold investment assets in the Liquidity strategy (absent an emergency fund) if they have labor market income that meets day-to-day spending needs. In general, families will not utilize a Liquidity strategy in a meaningful way until retirement. In retirement, the investment portion of a Liquidity strategy should be sized to provide spending in excess of income from business interests and distributions, pensions, Social Security, and similar sources of income.

We generally recommend a three-year Liquidity strategy coupled with a moderately aggressive portfolio in the Longevity strategy, but the correct sizing of the Liquidity strategy will depend on the risk taken in the Longevity strategy. As discussed in the Segmenting helps manage through bear markets section **(see pg. 8)**, we want the Liquidity strategy to be sufficiently sized to reduce the impact of sequence risk during a bear market. Generally speaking, investors holding a conservative or moderately conservative Longevity strategy should consider targeting two years of spending in the Liquidity strategy; investors using a moderate or moderately aggressive Longevity strategy should consider targeting three years of spending in the Liquidity strategy; and investors holding an aggressive Longevity strategy should consider targeting fours years of spending in the Liquidity strategy.

Purpose	Contains assets and resources for the next 2–5 years of spending needs
Sizing	Net present value of spending target
Discount rate	Currently near zero
Assets	Cash, cash equivalents, high-quality fixed income, and annuities
Resources	Borrowing facilities

In a low interest rate environment, investors will need to fund the Liquidity strategy with nearly the full dollar amount of spending needs. But even though the Liquidity strategy will have a low rate of return, it serves a very important purpose in providing a stable source of income for the family as well as the increased confidence to hold more risk in other portfolios. The Longevity strategy is responsible for providing growth. Muddling those objectives together results in suboptimal allocations, so we discourage high-risk, high-return investments in the Liquidity strategy.

Our preferred way to construct the Liquidity strategy is to hold one year of cash coupled with a three-year bond ladder that has been sized to provide assets needed for spending as the bonds mature **(see Fig. 9).** Taxable investors should consider using municipal bonds, whereas investors with assets in tax-deferred accounts should construct the ladder with taxable fixed income.

Fig. 9: Construct a bond ladder in the Liquidity strategy so that the amount you receive when the bonds mature equals your expense gap in the respective year

An expense gap occurs when the income available is less than the desired expense

	2018	2019	2020	Three year total
Total income	250,000	250,000	250,000	750,000
Total expenses	375,000	400,000	425,000	1,200,000
Expense gap	**(125,000)**	**(150,000)**	**(175,000)**	**(450,000)**

Liquidity portfolio

Cash and equivalents 125,000

Bonds, 2019 maturity 150,000

Bonds, 2020 maturity 175,000

Source: UBS

Defined-maturity bond mutual funds and exchange traded funds offer an alternative for investors who don't want to manage a portfolio of individual bonds.[8] These funds are explicitly designed with a target maturity date, which enables an investor to build a diversified bond ladder through the purchase of a limited number of funds. For instance, an investor could purchase 2018, 2019, and 2020 defined-maturity funds in order to provide assets for spending in 2018–2020.

Defined-maturity bond funds offer the benefit of simplicity, but there are notable drawbacks. For instance, investors in bond funds cannot match more flexibility around portfolio characteristics and the timing of cash flows available in a custom-built bond ladder. On the other hand, it can be hard to achieve sufficient diversification through individual bond purchases without a large asset pool. Bond funds provide an effective way to achieve that diversification. These trade-offs should be considered when deciding on implementation.

Bond ladders are not the only way to effectively create a Liquidity portfolio. The most important criteria are that the assets are liquid and have a high degree of price stability. Although it can be tempting to allow “yield creep” into riskier investments, a Liquidity strategy has a purpose—to match income and safe assets to spending needs—and should be managed with that objective in mind.

The Longevity strategy

The Longevity strategy is designed to hold a growth portfolio that contains the assets the family will use for lifetime living expenses. The sizing of this portfolio is based on those planned expenditures, which means a family who spends USD 500,000 per year will hold less assets in their Longevity strategy than a family that spends USD 5mn per year **(see Fig. 10)**; an 80-year-old will typically have less assets in their Longevity strategy than a recently retired 60-year-old.

Because the objective of the Longevity strategy is long-term growth, a moderately aggressive allocation is typically appropriate. However, some investors will choose to hold more- or less-risky portfolios in their Longevity strategy. There are tradeoffs. A more-conservative portfolio in the Longevity strategy essentially means the family will need to dedicate more assets to their lifetime spending needs, whereas a more-aggressive portfolio increases the chance of a sustained drawdown. Our analysis finds that a well-diversified, moderately aggressive growth portfolio balances these various risks when coupled with an appropriately sized Liquidity strategy.

Purpose	Contains assets and resources for lifetime living expenses (for the years beyond the Liquidity strategy)
Sizing	Net present value of estimated lifetime spending or through a simulation approach that calculates the value necessary for a high probability of success
Discount rate	Approximately 5%
Approach	Multi-asset class growth portfolio
Resources	Mortgage, disability insurance, property & casualty insurance, life insurance (beneficiary), durable power of attorney, healthcare proxy

Prior to retirement, an investor might have nearly all of his or her assets invested in the Longevity strategy. Closer to retirement and at the start of retirement, the combination of investment assets in the Liquidity strategy and Longevity strategy will typically result in a balanced allocation overall, which is appropriate for mitigating sequence risk. Due to the importance of avoiding sequence risk, investment strategies and solutions that are designed to reduce downside capture are also good candidates for the Longevity strategy.

Fig. 10: Higher spending requires larger Longevity portfolios

In USD

Annual spending	Required Longevity assets
100,000	2,500,000
200,000	5,000,000
400,000	9,900,000
800,000	19,800,000
1,600,000	39,600,000

*Morningstar calculates the tax cost ratio in-house on a monthly basis, using load-adjusted and tax-adjusted returns for different time periods. The "tax cost ratio" measures how much a fund's annualized return is reduced by the taxes investors pay on distributions.
Source: Morningstar Direct, UBS

From an asset allocation standpoint, cash or short-duration fixed income do not help to achieve the goal of the Longevity strategy. Cash and short-duration bonds are risky for long-term investors, just as long-duration bonds are risky for short-term investors. Although long-duration bonds have high short-term price volatility, investors have a high degree of certainty in regards to the purchasing power that a long-duration inflation-linked bond will offer at some point in the future. The same cannot be said about a long-term position in cash.

Equally important, the Longevity strategy is designed to include non-tradable assets, like human capital, property and casualty insurance policies, disability policies, primary residence, and any other assets that will provide for the future well-being of the family during their lifetimes.

The Legacy strategy

The Legacy strategy represents a family's surplus. Once the Liquidity and Longevity strategies are fully funded, excess assets are segregated into the Legacy strategy. There are important reasons for this segmentation, many of which are both behavioral and investment related, but is also to support the family's estate planning and multigenerational objectives.

Importantly, the Legacy strategy provides clarity in regard to how wealth is going to be utilized. It enables a family to look at its balance sheet and know, with a higher degree of confidence, that the Liquidity and Longevity strategies contain the assets that the family will need for the remainder of their lifetimes. This viewpoint is important because it alters the investor's mindset when it comes to thinking about risk in the Legacy strategy. Instead of day-to-day volatility, which has very little relevance in a portfolio that is intended to grow for years or decades, the investor can focus on patient strategies that offer long-term superior after-tax performance.

As discussed in the Legacy tax-alpha section, one of the most important factors in a Legacy strategy is tax-awareness and effective intergenerational transfer. Accounting for the tax hurdle, how should investable assets in the Legacy strategy be allocated? We can follow the lead of successful university endowments in this regard, but we have to adjust their strategies for tax consequences.[9] The average university endowment holds an aggressive portfolio with a large allocation to illiquid assets (e.g., hedge funds, private equity, and private real estate). Many endowments are also fairly active in regard to managing their public equity portfolios.

Purpose	Bequests, philanthropy, and other legacy or estate planning purposes
Sizing	Assets in excess of what the family needs for meeting lifetime goals
Discount rate	N/A
Approach	Modified endowment model, value orientation with illiquidity premium
Resources	Life insurance, trust and estate documents, succession plans

Taxable investors need to modify the traditional endowment strategy to focus on assets that prioritize unrealized gains vs. realized gains and, when realized gains are unavoidable, long-term capital gains instead of short-term capital gains since the latter are taxed at a higher rate. Pre-tax returns can look much worse after-taxes **(see Fig. 11).** In general, the resultant tax-adjusted asset allocation predominantly comprises a blend of municipal bonds, tax-advantaged or indexed public equity, private equity, and private real estate. The appropriateness of assets like natural resources depends to a large extent on the tax implications of the ownership structure.

This allocation guidance notwithstanding, many families will find their Legacy strategy populated by multiple structures (e.g., donor-advised funds, trusts, private foundations, privately held businesses, etc.) that have specific objectives and divergent investment strategies that are best suited for the particular trust.[10]

Fig. 11: High returns can look much worse after taxes

Fifteen-year total return and tax cost ratios, in %

Asset class	Annualized total return	Tax cost ratio	Post-tax return
Municipal high yield	4.39	0.00	4.38
Municipal national intermediate	3.68	0.04	3.56
US Large cap blend	8.42	0.82	6.70
Real estate	9.99	1.66	7.69
Corporate bond	5.47	1.67	3.52
Emerging markets bond	9.57	2.45	6.56
High yield bond	7.83	2.55	4.97

*Morningstar calculates the tax cost ratio in-house on a monthly basis, using load-adjusted and tax-adjusted returns for different time periods. The "tax cost ratio" measures how much a fund's annualized return is reduced by the taxes investors pay on distributions.
Source: Morningstar Direct, UBS

Conclusion

Based on our analysis and observation, we believe that the Liquidity. Longevity. Legacy. approach is highly effective for managing family wealth. We've made a technical and behavioral case for the approach in this report, but our practical experience has provided additional evidence.

Over the last 47 months, we've advised and educated hundreds of families on the 3L approach. The results are promising. By adopting the framework, many investors have realized that their Legacy strategy, previously undefined, deserved the bulk of their attention. Other investors made changes to their asset allocations that better align their investments with their objectives.

Ultimately, our goal is straightforward: To help families understand how their assets can best be used to meet their objectives. It's a purpose-driven approach to wealth management. What should you do to maintain your current lifestyle? What should you do to improve your lifestyle? What should you do to improve the lives of others? The 3L approach provides the answers to those questions.

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