UBS

Modern retirement monthly

Add robustness to your retirement strategy | 4 October 2017

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- Retirement strategy fragility reaches a peak at the point of retirement.
- Market volatility greatly impacts investment portfolios when you're near or just past retirement.
- Equities, no matter what valuation they are trading at, are very risky for short-term investors.
- We believe investors can add stability to their portfolios by incorporating the 3L strategy into their financial plan.

We'd like to start this month with a bit of a thought exercise. Suppose you have a USD 1,000 portfolio and over ten consecutive years experience the following returns: 7.3%, -1.35%, 35%, 19.6%, 31.7%, 27%, 18.4%, -12.5%, -13.4%, and -24.5%. A little bit of math shows us that the initial USD 1,000 portfolio would have grown to USD 1,936 at the end of the ten years.

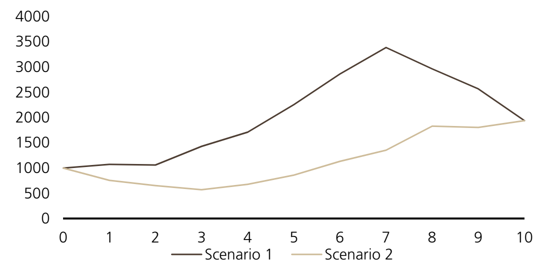
Now assume you experienced the exact same returns, but in the opposite order: -24.5%, -13.4%,-12.5%, 18.4%, 27% and so on. Do you wind up with the same amount of money as in the first scenario? The answer is yes at USD 1,936 (Fig. 1). The sequence in which the returns occurred didn't matter.

Now for a second exercise. We're going to keep everything the same as in the first example, but also include a USD 40 annual spend from the portfolio. In the first scenario the portfolio ends up at USD 1,510, but in the second scenario (returns reversed in order) the investor ends up with 25% less: USD 1,124 (Fig 2).

The phenomenon illustrated in the second example is called sequence risk, and it refers to the fact that when you're adding or withdrawing funds from a portfolio the order in which you experience returns matters a great deal. The same exact average return over time can lead to very different outcomes. Market pullbacks hurt a lot more when you're early in retirement than when you're still working.

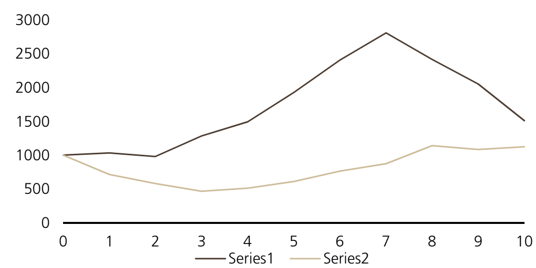
For readers that are curious, the returns used above were the inflation-adjusted returns of the S&P 500 leading up to the dot com crash.

Fig. 1: Sequence of returns doesn't matter when there are no contributions or withdrawals
Hypothetical growth of USD 1,000 with return sequence reversed in scenario 2



Source: Bloomberg, UBS

Fig. 2: Sequence of returns matter when there are contributions or withdrawals
Hypothetical growth of USD 1,000 with return sequence reversed in scenario 2, assuming USD 40 annual withdrawal



Source: Bloomberg, UBS

Fragile - Handle with care

From the standpoint of someone that's near or just past retirement, investment portfolios are fragile; market volatility impacts them greatly. A household can diligently save for 40 years, but a 40% stock market correction in the final years before retirement completely changes the assets the family has for retirement. Something similar can be said about a 30 or 40% one-year gain. A 40% gain is a happy blessing, but equally random in that there was no way to predict or prepare for it.

The fragility of retirement portfolios is why most families are advised to reduce their exposure to equity risk as they approach retirement. Lowering equity exposure increases the near-term stability of the portfolio, but there's no free lunch. The stability that's appreciated during market stress also creates a performance drag when viewed from a longer-term perspective.

Are high equity valuations a warning sign?

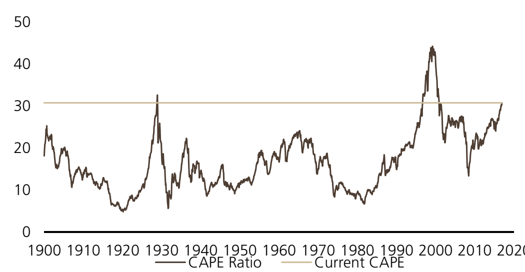
US equity valuations are objectively high. One longer-term measure, the Shiller CAPE (Cyclically adjusted price to earnings) puts the valuation of the S&P at levels only seen two previous times in the last 100 years – just before the Great Depression and just before the dot com bust (Fig. 3).

A lot of the commentary about high valuations focuses on the fact that valuations are a terrible predictor of returns over the short term. It's true. Valuations don't tell you much at all about what will happen over the next year or so, and have virtually no correlation with sharp declines and bear markets. However, it's also true that we don't really have any really good short-term indicators to time equity markets. Equities, no matter what valuation they are trading at, are very risky for short term investors. If you have money that you need to spend in the next three years invested in equities, sell your equities. You don't need a market view for that to be good advice.

High equity valuations tell us one important but simple thing: US equity returns are likely to be low but positive over the next decade. But it's also not super useful for us to just point to the long run and say that even if there's a sell-off long-term investors will be fine. I want to harken back to the famous Keynes quote, "in the long run we are all dead" on this point. The full quote is: "But this long run is a misleading guide to current affairs. In the long run we are all dead. Economists set themselves too easy, too useless a task, if in tempestuous seasons they can only tell us, that when the storm is long past, the ocean is flat again."

In other words, we can't simply wave our hands at the short term and only focus on the long term. We have to get through the short term to enjoy the fruits of the long term.

Fig. 3: US equity valuations are high
Shiller cyclically-adjusted PE ratio, 1900-2017



Source: Shiller data library, UBS. As of September 2017.

Are equity valuations also a warning sign?

> US equity valuations are objectively high right now, but Valuations don't tell you much at all about what will happen over the next year or so.

Learning from beauty contests

What can we look at to understand if we should be concerned about an equity sell off? The short answer is investor sentiment. At last week's CIO Forum in New York, I led a panel with three Behavioral Finance experts: Svetlana Gherzi (UBS), Terry Odean (UC Berkeley), and Dennis Ruhl (JP Morgan). While on stage, we held a Keynesian Beauty Contest with the audience.

A Keynesian beauty contest gets its name from a fictional newspaper contest in which participants try to select the six most attractive faces from a large selection of photographs. The winner is the participant who chooses the most popular faces according to everyone else. A naive participant would select the faces they find most attractive. A more sophisticated participant would try to base their selection on what they think others find attractive. An even more sophisticated participant would base his or her answer on what they think other participants' perceptions of attractiveness would be. This logic can be extended over and over again, and Keynes thought similar behavior was at work in the stock market.

In the short term, stock market pricing is likely based more on what everyone thinks everyone else thinks the correct value is than any fundamental assessment of value. Investor sentiment indices remain supportive of equity markets and don't indicate a growing trend toward bearishness. Absent some areas of private tech and cryptocurrencies, we also haven't heard a groundswell of run-away investor bullishness coupled with skepticism from other quarters like were present in 2000 and 2007. Today at least, the Keynesian beauty contest deems the equity market quite attractive.

A robust retirement strategy

Robust (adj):

(1) a process or system able to withstand or overcome adverse conditions

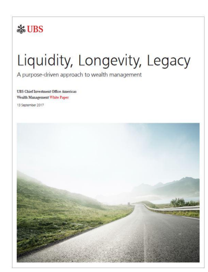
(2) capable of performing without failure under a wide range of conditions

Considering the seriousness of sequence risk, most investors need to shift mindsets when they approach retirement. Success can no longer be defined as return in-excess of a benchmark, since beating a benchmark can still result in a failure to meet their retirement goals. For instance, outperforming the S&P by 1% isn't 'success' if the family can't afford to generate the income they want in retirement because the market declined 30% due to the madness of crowds. Success is a strategy that meets the family's objectives no matter what happens one a short term basis in the market.

To that objective we published a report titled *Liquidity, Longevity, and Legacy: A purpose-driven approach to wealth management* at the beginning of September. Every family's financial plan is unique, but most investment strategies are organized quite similarly. Instead of

So what should you do?

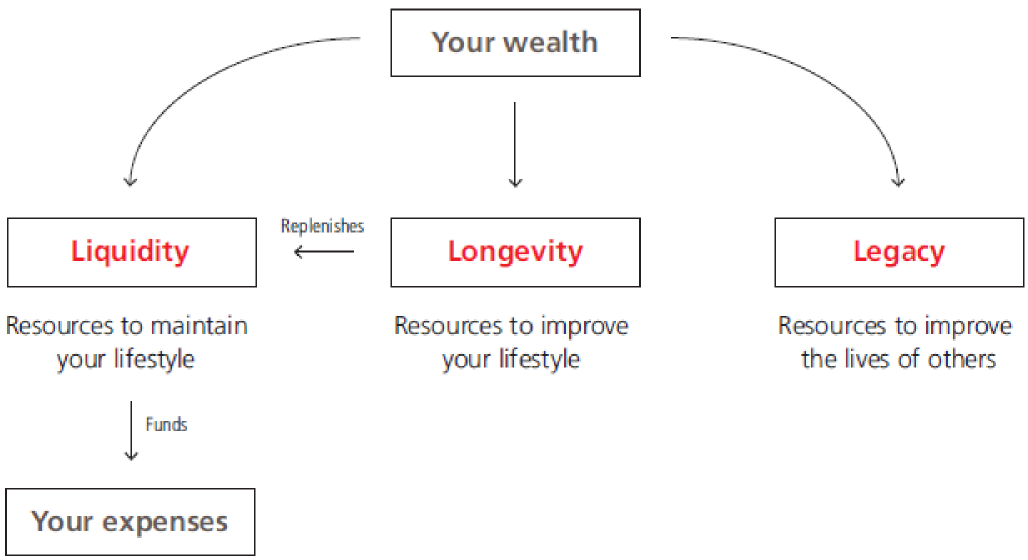
Investment strategies should be built around meeting your financial objectives.



using "risk tolerance" as the primary guiding factor, our approach is built on the foundation of your financial objectives (Fig. 4).

The report walks through how investors can use institutional-quality frameworks to intuitively segment their assets and manage them appropriately. For retirees, the framework is particularly powerful since it not only helps investors avoid sequence risk, but might even enable them to take advantage of market volatility to proactively improve results. Please speak to your financial advisor about obtaining a copy of the report and discussing how it applies to your situation.

Fig. 4: The UBS Wealth Management Framework



Source: UBS

Appendix

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