UBS

# Investment planning

## 2017 Foundations update | 24 October 2017

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- Foundations performed well in 2016 with private foundations and community foundations returning, on average, 6.4% and 7.3%, respectively.
- However, during the 10 years ending 31 December 2016, foundations earned less than they were required to distribute.
- High spending rates coupled with low investment returns will make it hard for many foundations to maintain the value of their portfolios without soliciting further outside contributions.
- We believe the combination of a Liquidity portfolio and a Longevity portfolio allows a foundation to (1) match cash flows needed for near-term spending and (2) grow at a suitable rate to operate in perpetuity.
- The spotlight article presents behavioral challenges investment committee's may encounter, and then offers action points to improve investment committee's decision process.


Foundations continue to operate in a highly challenged investment environment. High spending rates coupled with low investment returns will likely make it hard for many foundations to maintain the value of their portfolios without soliciting further outside contributions. While we believe foundations can overcome these challenges through a combination of asset allocation and portfolio management, investment committees and managers will have to focus on avoiding mistakes while maximizing value through asset allocation and efficient portfolio management in order to achieve suitable returns.

## Background

The term "foundation" doesn't have a precise meaning in the nonprofit sector. In this report, we use the term broadly to include both private foundations and community foundations engaged in grant-making for charitable purposes.

Private foundations are 501(c)(3) organizations generally started and supported by a family or small group of people for charitable purposes. Importantly, private foundations have to pay out at least 5% of their assets each year in the form of grants to charities. Many private foundations are 'endowed' with assets once and do not receive ongoing donations.

Community foundations are public charities that typically have a broader base of financial support than private foundations. Community foundations do not have the 5% spending constraint, but typically spend close to 5% of their assets per year through grant-making and other activities. It is fairly typical for a community foundation to continue to receive donations from supporters on an ongoing basis.

Unless otherwise noted, our data for this report primarily comes from the 2016 Council on Foundations - Commonfund Study of Endowments for Private and Community Foundations (abbreviated CCSF for the remainder of this report), which also clarifies the universe of foundations into private and community foundations.

## The performance hurdle for foundations

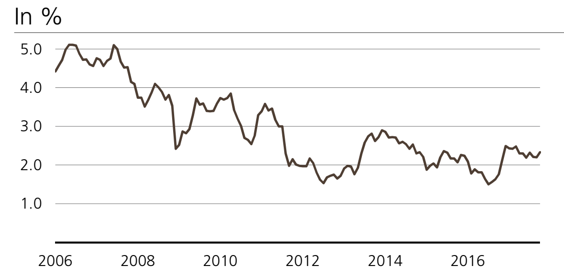
Throughout this report, we assume an investment objective that allows the foundation to spend 5% of its assets in perpetuity without reducing the inflation-adjusted value of its investment corpus. This objective ensures the foundation will be able to maintain a consistent level of charitable donations on a year-to-year basis. Today, a foundation needs to return about 7% per year (5% spend plus 2% inflation) in order to meet this return objective.

Unfortunately, current stock and bond valuations don't bode well for hitting a 7% return. US Treasury bond yields continue to reside below 3% (see Fig. 1), indicating a likely inflation-adjusted return on high quality fixed income of less than 1% over the next decade. US equity valuations are equally challenged. The cyclically-adjusted price-to-earnings ratio of the S&P 500, sometimes referred to as the Shiller CAPE, is higher than it's been since the peak of the dot com bubble (see Fig. 2). Due to high current valuations, US equity returns will likely be lower than normal over the next decade.

Some bright spots exist. Despite recent high performance, international equities have significantly lagged US equities since 2009 (see Fig. 3) and continue to trade at more-favorable valuations. We also believe some parts of the alternative investment markets—private equity and private real estate in particular—can continue to offer compelling returns. Figure 4 provides UBS's capital markets assumptions for major asset classes.

**Fig. 1: Long-term US Treasury yields continue to reside below 3%**

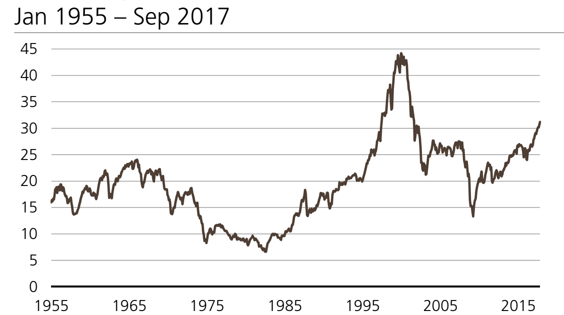
In %




Source: Shiller data library, UBS

**Fig. 2: The cyclically adjusted price-to-earnings (CAPE) ratio of the S&P 500 is higher than it's been since the peak of the dot com bubble**

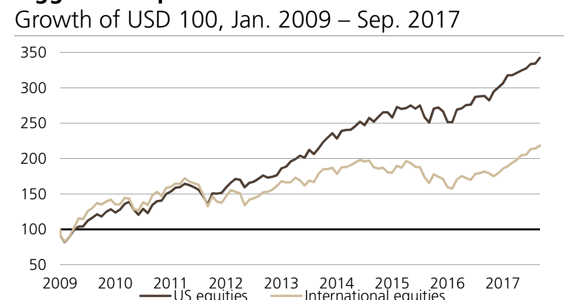
Jan 1955 – Sep 2017




Source: Shiller data library.

**Fig. 3: International equities have significantly lagged US equities since 2009**

Growth of USD 100, Jan. 2009 – Sep. 2017




Source: Morningstar Direct, UBS

**Fig. 4: UBS's capital markets assumptions for select asset classes**

Annualized total return and risk, in %

| | Ann'l total return | Ann'l risk |
|---|---|---|
| US Cash | 2.1 | 0.5 |
| US Government Fixed Income | 1.9 | 4.0 |
| US Municipal Fixed Income | 1.8 | 4.1 |
| US Corporate Investment Grade Fixed Income | 2.8 | 5.0 |
| US Corporate High Yield Fixed Income | 4.8 | 9.2 |
| International Developed Markets Fixed Income | 1.8 | 7.9 |
| Emerging Markets Fixed Income | 4.2 | 10.5 |
| US Large-cap Equity | 7.1 | 15.7 |
| US Mid-cap Equity | 7.6 | 18.3 |
| US Small-cap Equity | 7.8 | 20.1 |
| International Developed Markets Equity | 9.4 | 16.5 |
| Emerging Markets Equity | 8.8 | 24.1 |
| Commodities | 4.4 | 19.2 |
| Hedge Funds | 5.5 | 6.7 |
| Private Equity | 12.0 | 12.7 |
| Private Real Estate | 9.8 | 10.5 |

Source: UBS and WMA AAC as of 27 February 2017

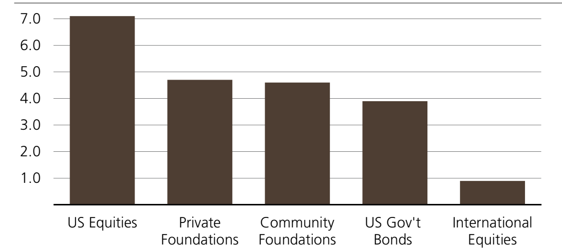
## Performance review

Foundations performed well in 2016: private foundations returned an average of 6.4%, whereas community foundations returned nearly a percent more on average at 7.3%. Even so, long-term foundation returns continue to fall below the level necessary to maintain +5% spending policies without declines in the real value of the corpus. On a trailing 5-year basis, foundations have averaged 7.3–7.6%, but 10-year returns are only in the 4.6–4.7% range on an annualized basis. Over the same 10-year period, annualized returns for US equities, international equities, and US government bonds were 7.1%, 0.9%, and 3.9%, respectively (see Fig. 5).

That 10-year return is an important data point. During the 10-years ending in 2016, foundations earned less than they are required to distribute and significantly less than they would need to earn net of inflation to maintain the real value of their portfolios. Even so, US equity valuations are slightly higher today than they were at the same point in 2007, and bond yields are about half as high as they were in 2007. Foundations have to consider that returns — even without a large crisis like we experienced in 2008 — might be lower over the next decade than they were during the last.

**Fig. 5: Long-term foundation returns continue to fall below the level necessary to maintain +5% spending policies**

10-year annualized return for period ending 31 December 2016, in %




Note: Asset class indices: Russell 3000, BBgBarc US Government and MSCI ACW Ex-USA

Source: 2016 CCSF, Morningstar Direct, UBS

## Realized spending rates

Perhaps buoyed by recent strong investment returns, private foundations increased mission-related spending from 5.4% of assets in 2015 to 5.8% of assets in 2016. Community foundations spent a smaller percentage of their assets, averaging 4.7% last year, down from 4.8% in 2015.

For comparison purposes, educational endowments spend 4.3% of their assets, on average, per year. We believe spending rates of 4.0–4.5% are more sustainable in the current environment than spending rates over 5%—particularly if the foundation doesn't want to reduce the dollar value of their grantmaking during a bear market. In fact, some foundations recognize that they are most-needed during recessions, and therefore try to manage their grantmaking counter-cyclically in order to provide the biggest impact when other charitable contributions might be scarcer.

We recognize that advising foundations to "spend less" is fairly limited advice. For starters, private foundations are forced to spend 5% per year. Community foundations have the flexibility to reduce spending but might be reticent to pull back on grantmaking. Even so, foundations should reflect the realities of a lower-return world in their investment policy statements—either by reducing spending, recognizing that they might have to spend down their corpus, or by seeking additional donations to bolster their investment portfolio.

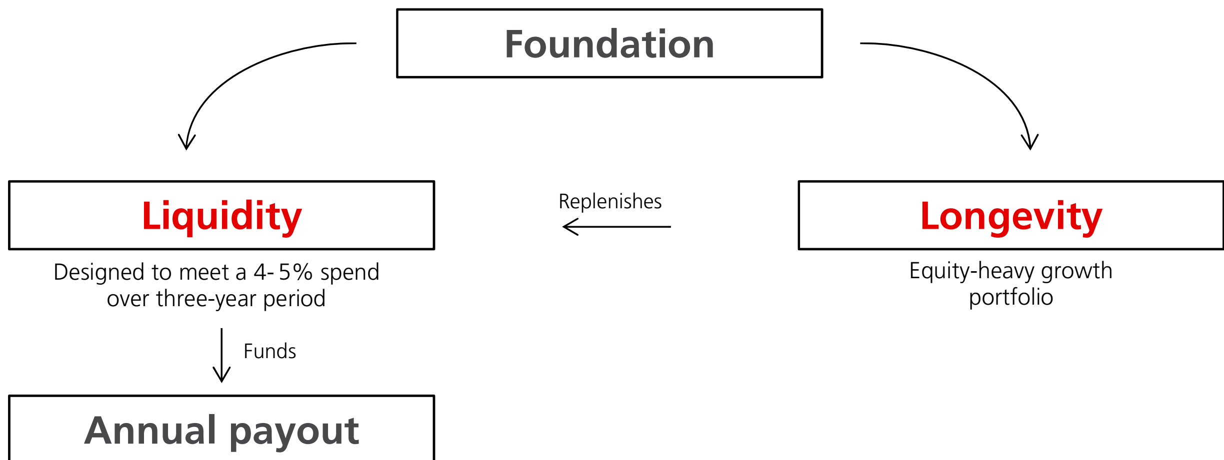
## Asset Allocation

Foundations hold generally well-balanced asset allocations that differ mainly based on the size of the foundation. Foundations under USD 101mn allocate about 55–60% of their portfolios to equities, 15–20% to fixed income, 15–25% to alternative investments, and 5–10% to cash. Larger foundations hold upwards of 50% in alternative investments, funded from both equity and fixed income relative to the portfolios of their smaller brethren.

To meet their spending requirements in perpetuity, foundations need to target asset allocations that traditionally would be considered moderately aggressive or aggressive in nature. One of the risks inherent in an equity-heavy allocation is that a bear market will result in forced selling to meet spending requirements. Forced selling in a down market is essentially reverse dollar cost averaging, and can be disruptive to the long-term performance of the investment portfolio.

We suggest structuring a foundation's asset allocation into two parts: a Liquidity portfolio and a Longevity portfolio (see Fig. 6). The Liquidity portfolio should be designed to meet a 4–5% spend over a three-year period (i.e. roughly 15% of the assets), whereas the Longevity portfolio should be an equity-heavy growth portfolio that provides for the Longevity of the foundation while feeding assets into the Liquidity portfolio on an ongoing basis. The combination of the two portfolios allows a foundation to (1) match cash flows needed for near-term spending and (2) grow at a suitable rate to operate in perpetuity.

**Fig. 6: We suggest structuring a foundation's asset allocation into two parts: a Liquidity portfolio and a Longevity portfolio**
Modified UBS Wealth Management Framework



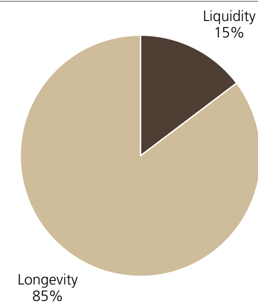

Source: UBS

The Liquidity/Longevity segmentation comes from our 3L wealth management framework, which allocates an investor's assets between Liquidity, Longevity, and Legacy portfolios. Since foundations operate in perpetuity they don't need to allocate assets to a Legacy portfolio, which is why we are only using the Liquidity and Longevity portfolios in this analysis.

The framework results in an allocation of approximately 15% to the Liquidity portfolio and 85% to the Longevity portfolio (see Fig. 7). Liquidity portfolios should generally hold one year's worth of spending in cash and the reminder in a fixed income portfolio that designed to mature in equal parts each year. Many foundations following this strategy will build a bond ladder that sequences maturities to match spending, but high-quality short duration bonds will work too. For the example in this paper, we've invested the Longevity portfolio in an aggressive asset allocation (see Fig. 8) in order to achieve the long-term growth, but the combination of both portfolios brings the overall risk down to moderately aggressive.

**Fig. 7: Allocation of approximately 15% to the Liquidity portfolio and 85% to the Longevity portfolio**

Allows foundation to match cash flows needed for near-term spending and grow at a suitable rate to operate in perpetuity




Source: UBS

**Fig. 8: Investing the Longevity portfolio in an aggressive asset allocation to achieve long-term growth**

The combination of Liquidity and Longevity portfolio assets reduces the overall risk of the total portfolio, in %

| Longevity portfolio | no non-traditionals | with non-traditionals |
|---|---|---|
| US Government FI | 10.0 | 12.0 |
| US IG Corp. | 5.0 | 0.0 |
| US Large cap equity | 32.0 | 19.0 |
| US Mid cap equity | 8.0 | 6.0 |
| US Small cap equity | 5.0 | 3.0 |
| International dev. mkt. equity | 29.0 | 21.0 |
| Emerging market equity | 11.0 | 9.0 |
| Private equity | 0.0 | 25.0 |
| Private real estate | 0.0 | 5.0 |
| **Total** | **100.0** | **100.0** |
| **Estimated return** | 7.3 | 8.5 |
| **Estimated risk** | 13.6 | 12.4 |

Source: UBS

## How much risk is too much?

With a long enough time horizon, the dominant investment strategy for a foundation might appear to be to increase portfolio risk to the greatest extent possible. However, such a strategy creates a portfolio where near-term price stability can be more volatile than desired, especially if liquidity considerations are relevant. This possible shortfall becomes more extreme as portfolio volatility increases, as does the probability that the foundation's investment portfolio goes to zero. As recent history makes very clear, low-probability worst-case market events do occur and must be considered as part of the overall decision-making process along with expected returns.

Another reason to limit portfolio risk, in addition to the prospect of a worse "worst-case" scenario, is Internal Revenue Code 4944, which penalizes private foundations for making investments that jeopardize the foundation's ability to provide "for the long- and short-term financial needs of the foundation to carry out its exempt purposes." An elevated level of risk taking—above and beyond the moderate to moderately aggressive level necessary for a foundation to accomplish its objectives—might therefore be considered as jeopardizing investments and result in a tax penalty by the IRS.

## Conclusion

Despite recent high returns, foundations face a tough road ahead. Returns have trailed the level necessary to meet their objectives over the last decade, and high equity and bond valuations lead us to be even less optimistic about the next ten years. There are very few assets available to investors that are able to produce sufficient returns to maintain 4–5% distribution rates in perpetuity.

Industry trends suggest that both endowments and foundations are reacting by shifting their portfolios toward international equities, but that alone will likely not be adequate as a response. We suggest taking the further step of adapting the UBS Goals Based Wealth Management approach.

# Spotlight

## Improving investment committees' decision process

The rationale for forming investment committees is that groups enable us to benefit from the intelligence of our peers. The classic example that demonstrates this theory is from a 1906 county fair in England where 800 people were asked to guess the weight of an ox. Statistician Sir Francis Galton found that the median guess of 1,207 pounds was within 1% of the actual weight, 1,198 pounds.

This underscores the power of combined independent and diverse knowledge that investment committees have as a tool. However, investment committees are susceptible to the same behavioral challenges as individuals – and these counterproductive impulses can even be amplified by group dynamics. They can lead investment committees to make suboptimal decisions, which can negatively impact portfolio performance and increase exposure to fiduciary risk.

It's been found that interacting groups often do worse than individuals at making decisions. Poor group decision-making is often the result of social conformity, where individuals suppress divergent opinions, rather than add to the pool of knowledge, in order to fit into the group. The decision to conform could be due to cognitive, emotional, or motivational factors. For example, individuals may want to minimize tensions in the group, or start doubting their own opinion; they may wish to support the leader, or they may simply want the group to make a fast decision. Inability to share information, communicate effectively, or encourage healthy debates can cause individuals to agree to incorrect solutions in a group setting.

Social conformity also plays a role when it comes to voting among members, as it is often verbally done by going around the conference table. This type of sequential voting automatically invites social conformity to the room. An alternative way is to ask for independent votes, for example through secret ballots, before sharing the results.

Moreover, as investment committees spend more time together, their views can become more homogenous and extreme – this is known as group polarization. In an investment context, this polarization effect suggests that if a committee is made up of a majority of slightly risk-taking people, the committee decisions will often exhibit even more risk-taking. On the other hand, if a committee is made up of a majority of slightly risk-averse people, the committee decisions will often exhibit even more risk-aversion.

In addition to the complexity of group dynamics, buying high and selling low also goes well beyond individuals. Studies on the selection and termination of investment management firms indicate that on average investment managers that have realized large positive excess returns in the last 24 months tend to get hired, and managers who were behind their benchmarks, along with other reasons, get fired. However, in the 24 months following the change, the fired managers outperform the hired ones. Investment committees, as do individuals, have a hard time not timing the market.[1]

As foundations learn to embrace the current challenging economic environment, investment committees also have to overcome behavioral challenges. While we can't control the financial markets, we can improve investment committees' decision-making process by taking the following steps.

[1]Source: Goyal A. and Wahal S., (2008), The selection and termination of investment management firms by plan sponsors, The Journal of Finance, 4, 1805-1848.

## Action points:

1. *Establish and update an Investment Policy Statement (IPS)*
The purpose of an IPS is to establish short-term and long-term goals and objectives of the portfolio; distribution policies; and a diligent investment process that includes strategic asset allocation and rebalancing policies, a manager evaluation process, and performance metrics. Update the IPS as plans evolve.

2. *Set an optimal committee structure*
Many committees are large and homogenous; research shows that smaller teams with cognitive diversity can be more effective. In addition to diversity within the team, an external consultant can join as a devil's advocate and help overcome groupthink.

3. *Promote independence*
All members should do their homework prior to coming to the meeting and be ready to share their own thoughts and ideas. The leader should ensure regular attendance and critical thinking.

4. *Manage information*
The leader should balance participation, provide an opportunity for each member committee to express their thoughts and ideas, encourage information sharing and, discussions, and ideally speak last.

5. *Recognize biases*
Learn and be aware of common behavioral biases. Keep a record of activities and decisions, along with their rationales, to ensure that the committee maintains an institutional memory as the membership changes over time.

## Non-Traditional Assets

**Non-traditional asset classes are alternative investments that include hedge funds, private equity, real estate, and managed futures (collectively, alternative investments).** Interests of alternative investment funds are sold only to qualified investors, and only by means of offering documents that include information about the risks, performance and expenses of alternative investment funds, and which clients are urged to read carefully before subscribing and retain. An investment in an alternative investment fund is speculative and involves significant risks. Specifically, these investments (1) are not mutual funds and are not subject to the same regulatory requirements as mutual funds; (2) may have performance that is volatile, and investors may lose all or a substantial amount of their investment; (3) may engage in leverage and other speculative investment practices that may increase the risk of investment loss; (4) are long-term, illiquid investments, there is generally no secondary market for the interests of a fund, and none is expected to develop; (5) interests of alternative investment funds typically will be illiquid and subject to restrictions on transfer; (6) may not be required to provide periodic pricing or valuation information to investors; (7) generally involve complex tax strategies and there may be delays in distributing tax information to investors; (8) are subject to high fees, including management fees and other fees and expenses, all of which will reduce profits.

Interests in alternative investment funds are not deposits or obligations of, or guaranteed or endorsed by, any bank or other insured depository institution, and are not federally insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other governmental agency. Prospective investors should understand these risks and have the financial ability and willingness to accept them for an extended period of time before making an investment in an alternative investment fund and should consider an alternative investment fund as a supplement to an overall investment program.

In addition to the risks that apply to alternative investments generally, the following are additional risks related to an investment in these strategies:

- Hedge Fund Risk: There are risks specifically associated with investing in hedge funds, which may include risks associated with investing in short sales, options, small-cap stocks, "junk bonds," derivatives, distressed securities, non-U.S. securities and illiquid investments.
- Managed Futures: There are risks specifically associated with investing in managed futures programs. For example, not all managers focus on all strategies at all times, and managed futures strategies may have material directional elements.
- Real Estate: There are risks specifically associated with investing in real estate products and real estate investment trusts. They involve risks associated with debt, adverse changes in general economic or local market conditions, changes in governmental, tax, real estate and zoning laws or regulations, risks associated with capital calls and, for some real estate products, the risks associated with the ability to qualify for favorable treatment under the federal tax laws.
- Private Equity: There are risks specifically associated with investing in private equity. Capital calls can be made on short notice, and the failure to meet capital calls can result in significant adverse consequences including, but not limited to, a total loss of investment.
- Foreign Exchange/Currency Risk: Investors in securities of issuers located outside of the United States should be aware that even for securities denominated in U.S. dollars, changes in the exchange rate between the U.S. dollar and the issuer's "home" currency can have unexpected effects on the market value and liquidity of those securities. Those securities may also be affected by other risks (such as political, economic or regulatory changes) that may not be readily known to a U.S. investor.

# Appendix

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