PERA

Public Employees Retirement Association *of* New Mexico

INVESTED IN TOMORROW.

1/25/2018

# 2018 Annual Strategic Letter

PERA has a sacred trust to manage the Fund to meet the long term obligations we have promised to our 90,000 members. As part of fulfilling this mission, it is important to regularly take a step back and assess where we are in meeting our objectives from a strategic standpoint.

Thus, the purpose of this annual Strategic Letter is to assess from an investment perspective our current ability to meet our organization's mission, the challenges that may lie ahead, and the strategies we need to employ to fulfill our mission now and in the future.

**Executive Summary**

PERA's 5-year Strategic plan (2018-2022) will guide Investment Division staff priorities. The key goals and priorities include:

1. Maintain an appropriate strategic asset allocation (SAA) to meet the actuarial discount rate assumption. (7.25% for next 8 years and 7.75% thereafter)
2. Provide ten-year annualized returns that equal or exceed the policy benchmark
3. Continuously assess the prudence of current assumptions and the possibility of meeting those assumptions within an acceptable risk framework

At current allocations and current Wilshire risk and return assumptions, PERA's long-term expected return of its target Strategic Asset Allocation (SAA) policy portfolio is 6.5% with an expected 10.7% risk. This is short of PERA's strategic goal of maintaining an appropriate strategic asset allocation to meet the required actuarial return of 7.25% for next 8 years and 7.75% thereafter. The shortfall is estimated to be 1.25%.

In addition, PERA is living in an investment environment where forward looking, long-term returns from assets are expected to be low relative to historical experience. This is especially true for long run equity returns. Despite strong cyclical or current short term conditions for the global economy and equities, longer term expectations (10-years+) are expected to be more modest. Courtesy of Ned Davis Research, the current cyclically adjusted price-to-earnings (CAPE) valuation of the S&P 500 is roughly 30x. There are only two other periods since 1880 where the S&P 500 had this level of valuation- roaring 1920s and the dot.com era. History suggests that at these valuation levels the forward 10-year median nominal return of equities would be a modest ~5%, and Wilshire's most recent global equity return expectation stands at 6.45% over the next ten years.

Thus, going forward, PERA has two significant investment challenges: 1. Increase total portfolio expected returns so that it can bridge the 1.25% shortfall. 2. Build this updated portfolio in the face of a low return environment with potential modest returns from equities and fixed income for the next 10 year period.

To meet these significant challenges, PERA will need to consider a 5-year glide path in order to prudently incorporate and execute a strategy. The strategy to get to the end state will be two pronged: 1. Increase the expected returns of the Strategic Asset Allocation or Beta via risk balancing efficiencies, and 2. Incorporating excess return targets or Alpha over the Strategic Asset Allocation.

The first step in 2018 will be laying the foundation and strategy for the glide path toward the 5-year strategic end goals.

**PERA Investment Strategic Goals**

In 2017, PERA staff adopted a 5-Year strategic plan outlining objectives for the whole agency that sets direction, work activity, and goals for staff to achieve starting in 2018 through 2022. As part of the plan, key investment objectives for Investment Division staff stand out:

- Maintain appropriate strategic asset allocation to meet the actuarial discount rate assumption. (7.25% for next 8 years and 7.75% thereafter)

- Work towards 30-year funding period of unfunded actuarial accrued liability

- Provide ten-year annualized returns that equal or exceed the policy benchmark

From an Investment Division perspective, these are the big picture guideposts that will direct our objectives and activity over the next 5 years and will drive focus for 2018.

**Current State**

From solely an investment perspective, our number one goal is to set a Strategic Asset Allocation portfolio that can meet our actuarial required return over the long term—10 years or longer. That goal in nominal terms is to produce a 7.25% absolute return, which then ratchets up to 7.75% absolute return after 2025. This is a very high bar given medium and long term outlooks.

PERA's Strategic Asset Allocation portfolio, as currently constructed and with current long-term asset return and risk assumptions, would fall short of our nominal 7.75% long term actuarial required return. Based on asset return and risk assumptions from Wilshire Associates, this portfolio would be expected to produce a 6.5% absolute return over the long run. This is -1.25% short of our goal.

In order to close this shortfall, PERA incorporates more complex strategies and private assets into the asset allocation. Without these more complex value added strategies, the short fall to our 7.75% actuarial required return would be greater. For example, a full allocation, at the same risk level, to a fully indexed "simple" portfolio that excludes value added strategies would only garner 5.5% over the long run, resulting in a greater shortfall to our goal (-2.25%).

The following table summarizes the shortfall for PERA's current Strategic Asset Allocation portfolio and for the all indexed "Simple" portfolio. Obviously, both portfolios fall short of our long-term goal.

| Description | 10Year+ Expected Return | Expected Risk | Shortfall/Surplus vs. Actuarial Required Return (7.75%) |
|---|---|---|---|
| PERA *Current* Strategic Asset Allocation | 6.5% | 10.7% | -1.25% |
| *"Simple"* All Passive Portfolio (58% global equity/42% U.S. bonds) | 5.5% | 10.6% | -2.25% |

*Source: Wilshire Associates long-term asset expectations*

**Environment & Future Challenge**

Investors experienced a continued "goldilocks" economic and market environment in 2017 and the consensus is this could continue into 2018. Synchronized global economic growth combined with relatively low inflation and supportive central banks have been key ingredients in the "goldilocks" environment. This has supported a spectacular advance in risk assets, none more evident than equities with global equities rising 20%+ in 2017.

The below chart, courtesy of BCA Research, summarized the 2018 expectation for continued synchronized global growth and moderate inflation.

**GDP Growth Assumptions**

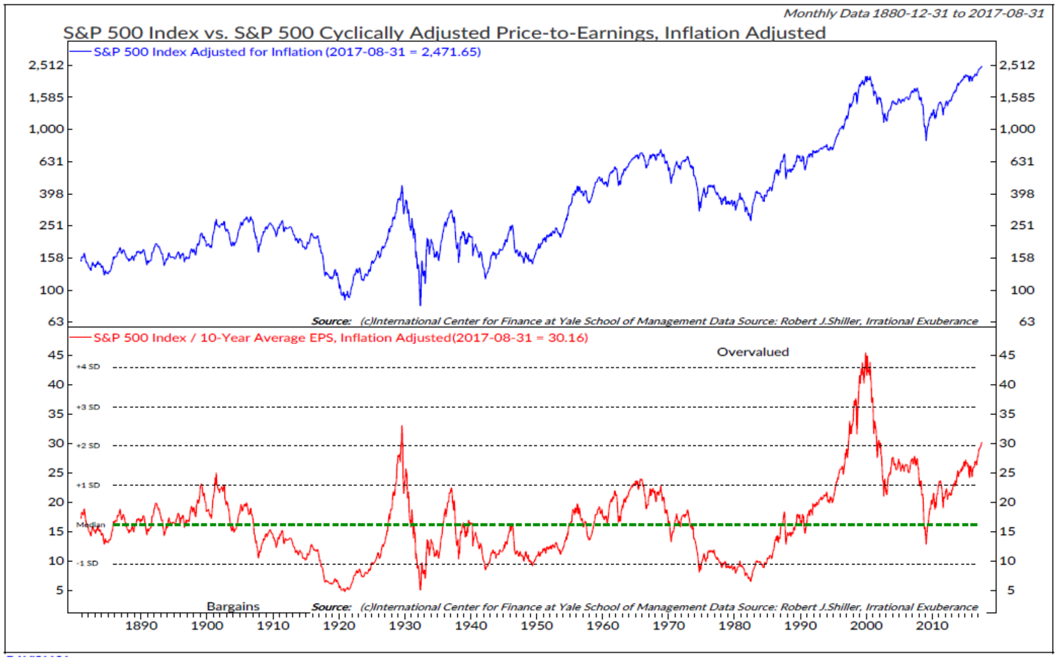
| | WORKING POPULATION GROWTH | PRODUCTIVITY GROWTH | REAL GDP GROWTH | INFLATION | NOMINAL GDP GROWTH |
|---|---|---|---|---|---|
| U.S. | 0.3% | 1.7% | 2.0% | 2.2% | 4.2% |
| EUROPE | -0.6% | 1.2% | 0.6% | 1.8% | 2.4% |
| JAPAN | -0.8% | 0.9% | 0.1% | 1.9% | 2.0% |
| EMERGING MARKETS (1) | 1.0% | 3.5% | 4.5% | 3.0% | 7.5% |
| EMERGING MARKETS (2) | 1.0% | 1.0% | 2.0% | 3.0% | 5.0% |

SOURCE: BCA ESTIMATES.

However, long term investors such as PERA need to look past the cyclical (short-term) outlook and focus more on a 10-year+ forward outlook. We believe that the cyclical outlook (short-term) for the bull market in equities that began in March 2009 can persist with its continued momentum and underlying fundamental strengths. Recently passed fiscal stimulus in the U.S. may provide an additional shot-in-the-arm for risk assets and can aid the cyclical outlook. However, financial conditions, particularly in the U.S., will gradually tighten with continued economic growth, inflation inching toward target levels (2% in the U.S.), and unemployment continuing to drive lower. As this occurs, central bank accommodation will ease and normalization in the markets is inevitable.

*Equity Market Valuations & Forward Returns*

The bull market that began in March of 2009 has been on a historically strong run. From a historical perspective, there have only been two periods since 1880 where U.S. stocks have been more richly valued than today- the roaring 1920s and the dot.com era. The following chart from Ned Davis Research maps the historical cyclically adjusted price-to-earnings (CAPE) of the S&P 500. Currently, the S&P 500 is running at 30x, which has only been eclipsed by the dot.com era ~45x and roaring 1920s era of ~35x.

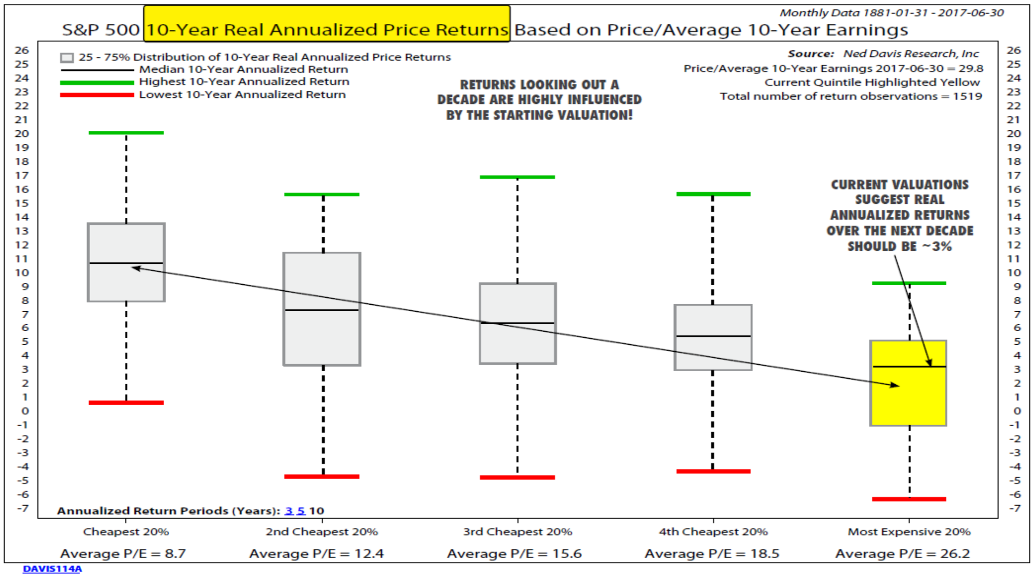



*Source: Ned Davis Research*

A snapshot of valuations by itself has typically been a poor predictor of eventual equity returns 12 to 36 months out. However, valuations, particularly the CAPE measure, have been a very strong predictor for eventual equity returns for the next decade.

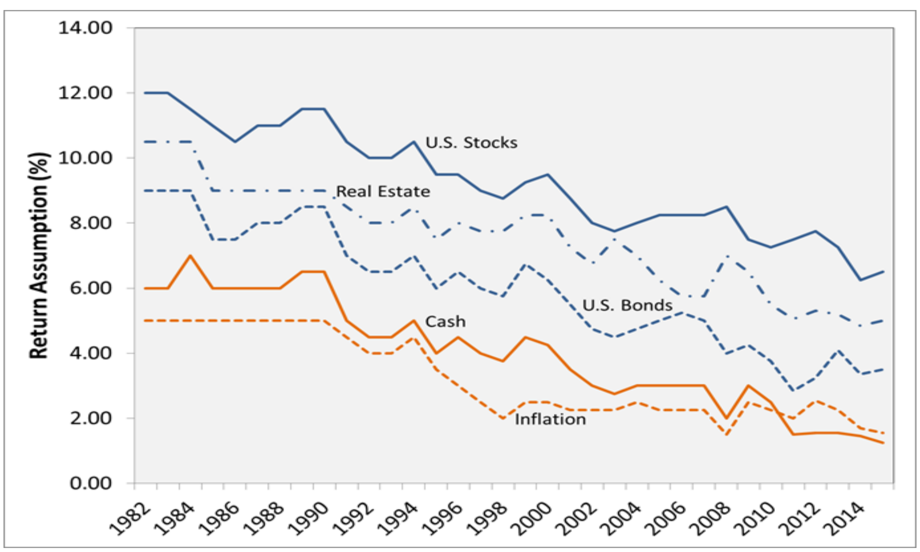
Again courtesy of Ned Davis Research, the following chart breaks CAPE valuations into subsequent 10-year returns for the S&P 500. Based on data going back to the 1880s, when the S&P 500 had a starting price-to-earnings valuation that was 26x or greater (such as today's valuations), this resulted in median *real* S&P 500 forward 10-year returns of 3%. Adding back inflation of roughly 2%, this would be an expected nominal (absolute) return of 5%. Moreover, when the S&P 500 had a starting valuation of 26x or higher, forward 10-year returns were distributed to the high side of around ~9% *real* or ~11% nominal and -6% *real* or -8% nominal on the downside.

While we cannot predict where the 10-year forward U.S. equity returns will be, current S&P 500 valuations suggest a modest ~5% median nominal expectation over the next 10-years. This is well-below most institutional investors' long-term equity expectations and portends a lower expected long term return environment.




*Source: Ned Davis Research*

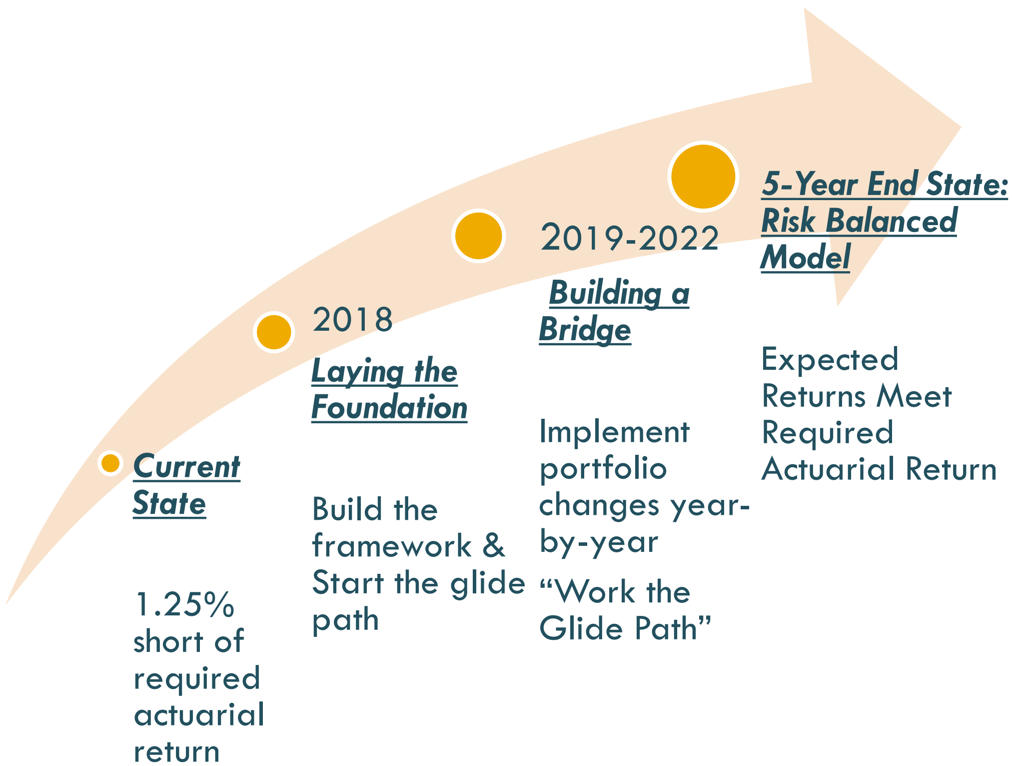
To illustrate the development of the low return environment, the following chart is the last four decades of data for Wilshire's long term asset return assumptions. The trend has clearly been lower expected returns for all assets. Given current valuations for equites, we should expect this trend to continue. Wilshire's return expectations for equities is 6.45% over the next 10 years.




*Source: Wilshire Associates, long-term return assumptions*

**Future State: 5-Year Forward Glide Path**

Given the challenges that lie ahead, PERA needs to take a 5-year look at building a strategy to meet the challenge. In the current state, PERA's portfolio is 1.25% short of required actuarial returns. The following chart describes a potential glide path to meet strategic goals.




To get to the desired end state, PERA will need to consider a two-pronged strategy:

1. Increase the expected return of strategic asset allocation (SAA) or Beta portfolio via risk balancing efficiencies.

2. Incorporating a targeted excess return or Alpha over and above the strategic asset allocation. These are active management strategies that can provide value add to help meet actuarial required returns.

Moving down this approach will take time, effort, and education as this is more complex.

**2018 Goals: Laying the Foundation**

The first major step to meet the challenges will be in 2018. Objectives will be to set the foundation and to adopt a prudent strategy that PERA can execute to meet long term strategic goals.

Strategic Asset Allocation or Beta initiatives will include:

- Complete economic and demographics experience study
- Education on Risk Balance in setting a Strategic Asset Allocation
- Asset-Liability study
- Review & recommend Strategic Asset Allocation Policy that increases expected return via risk balancing efficiencies.
    - Set glide path to increased expected returns and risk balance, implement up to 20% of glide path in 2018
- Adopt Reference Portfolio (Simple, indexed portfolio) for benchmarking

Initiatives from active management or Alpha to produce long-run excess return over Beta will include:

- Education on Risk Budgeting
- Review and Recommend an active risk budget
- Review and Recommend an active management (alpha) target
- Begin implementing active risk budget and glide path to alpha target

Lastly, PERA along with its actuaries and general consultant will conduct an asset/liability study. The study will examine liability trends and the efficacy of current assumptions on demographics, economic trends, and investment returns. This will culminate in a presentation, review, and consideration of any potential assumption changes at the Board Retreat.

**Conclusion**

While the current state of the PERA strategic asset allocation policy portfolio is expected to produce 6.5% over the long run, which is short of actuarial required returns, PERA can employ a strategy to bridge the gap. The strategy will require thinking on a 5-year horizon for consideration and implementation. 2018 is an important first step that lays the foundation for the strategy and to set a glide path to meet end objectives.