PERA

Public Employees Retirement Association of New Mexico

INVESTED IN TOMORROW.

5/8/2020

Annual Strategic Letter- Spring 2020

Our past Strategic Letters provided the Investment Committee, Board and stakeholders updates on investment results, long-term goals, and the challenges going forward. **Calendar year 2019 proved to be a fruitful year in the markets with global stocks producing 25%+ returns and bonds producing 8.6%. Net of fees, the PERA fund was up 14.7% for the calendar year.**

What a difference a quarter makes. Writing this letter in early May, the **coronavirus and the economic fallout have written a completely different story with worldwide focus on ensuring the health and welfare of every citizen.** A virtually unthinkable situation and rapid turn-of-events. While the Great Lockdown to protect our citizenry from humanitarian disaster is paramount, the economic fallout and market impact has been fast and deep. In the grips of the Great Lockdown, markets reversed all its 2019 gains and then some. The stress and drawdown echoed the experience of the 2008-2009 Great Recession and in some aspects market activity in the 1930s. The market distress stretched across all assets with nowhere to hide.

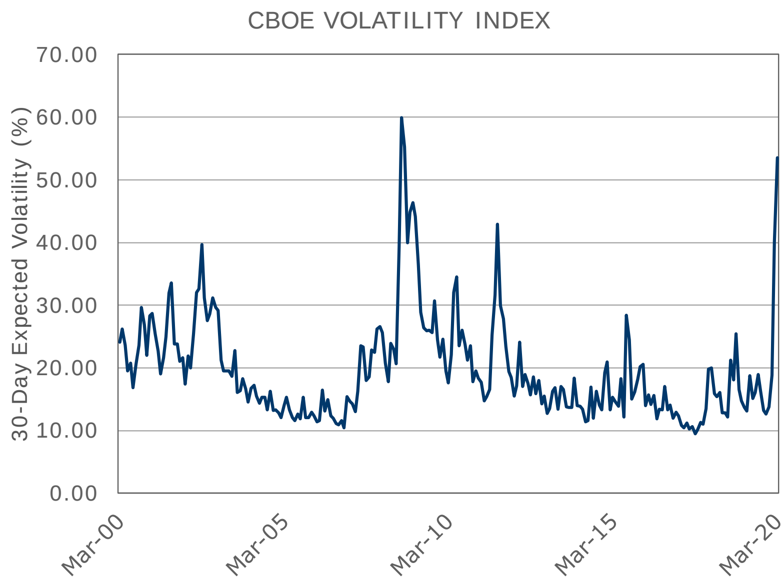
As with all things, "This too shall pass." As of early May there is light at the end of the tunnel. Worldwide it appears the Great Lockdown has had a positive impact on "flattening of the curve" with the world looking to re-open. Policy-makers have initially done a great job of meeting the economic challenge with unprecedented fiscal and monetary stimulus. Markets have made an initial strong recovery.

Coming into the crisis, the PERA Fund had a defensive stance versus its Policy Benchmark, held ample liquidity, and continued to meet benefit payments. With this stance, along with the changes in SB 72 from the 2020 legislative session and PERA's long-term and diversified strategy, PERA will be able to weather this storm. While this crisis has been painful, PERA is well-positioned to take advantage of opportunity. As a long-term investor, today's market dislocation offers opportunity for down the road. In this letter, we will discuss not only results through March 2020, but we will discuss the road ahead, opportunities, and 10-year investment outlook for PERA.

Market Environment

Market reaction to the Great Lockdown was strong and swift. Year-to-date through March, investment grade bonds and specifically U.S. treasuries was the best performing asset. Core bonds, TIPS and cash produced positive returns as investors sold risky assets and ran to safety. Risk assets, unfortunately had a tougher time. High yield bonds were down -12.7%, Equities were down -23%, Commodities down -23%, REITS down -25% and Master Limited Partnerships (MLPs) down -57%.

Moreover, to put the event in context are the below historical graphs. The first graph is the volatility index which tracks the amount of expected volatility in the market. **Back in the Great Recession of 2008-2009 volatility spiked to a reading of 60. Now in the Great Lockdown of the coronavirus, volatility spiked at nearly the same level.** This emphasizes the level of distress and volatility seen over the past quarter.



However, since the depth of the sell-off in mid-March, we've seen policy-makers react strongly. This, along, with flatten of the coronavirus curve have seen markets recover, particularly equity markets. **Given the tailwind from policy makers and flattening of the coronavirus curve, markets are looking and acting optimistic.**

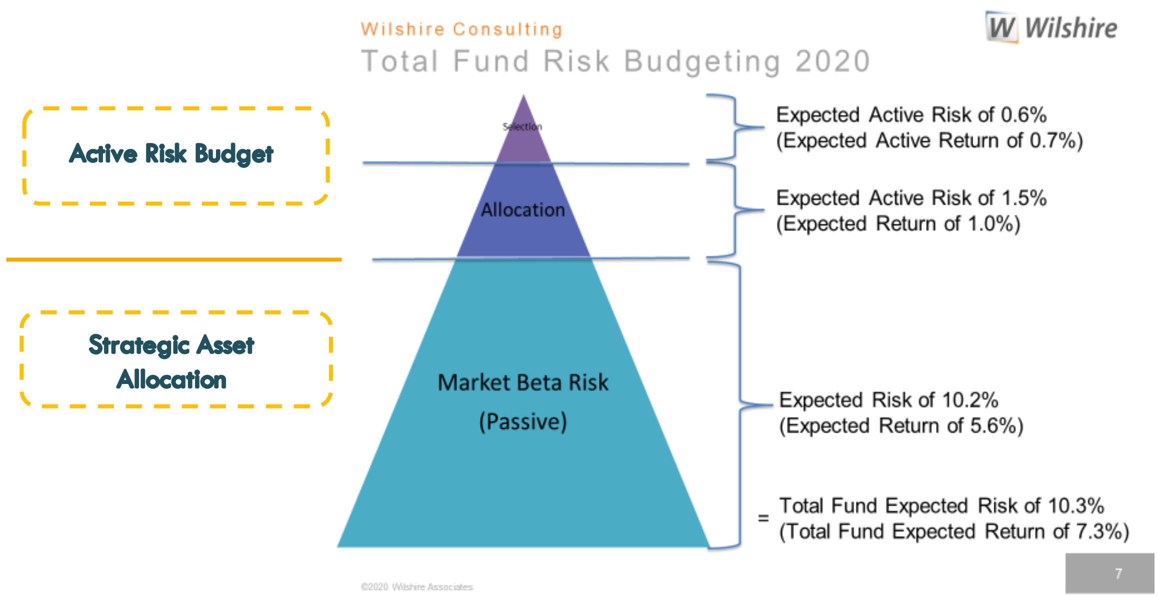
Performance as of March 31, 2020

The following section provides more detail on performance. Broadly, PERA's performance corresponded with the Investment Strategy employed. As of March 31, 2020, the data shows performance for short term periods and long-term periods—10 years and since data inception in 1985. **PERA over the long run has met its benchmarks.** The results are shown on the table below.

	Net of Fee Returns	Benchmark	Reference Portfolio	Actuarial Hurdle (Average)
Year-To-Date	-10.00%	-16.44%	-12.21%	7.25%
Fiscal Year-To-Date	-5.95%	-12.03%	-6.77%	7.25%
3 Year	3.23%	0.64%	2.77%	7.70%
5 Years	3.58%	2.49%	3.10%	7.70%
10 Years	6.25%	5.27%	5.28%	7.70%
Since Inception (1985)	8.51%	8.24%	N/A	7.70%

As a reminder, there are two key governors in portfolio implementation. First, the adopted Strategic Asset Allocation (SAA), which sets forth 10-year return expectations for each asset class and targeted diversified asset allocation or market beta risk. This is shown in the light blue in the below triangle. This is by far the biggest risk and driver of long-term returns. The Board sets the policy and targets for the SAA.

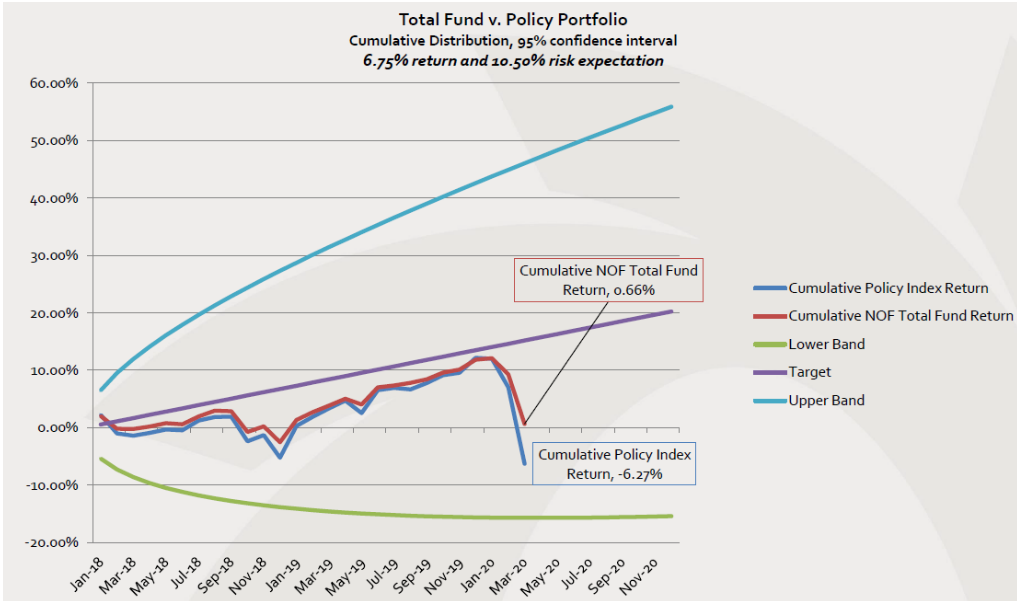
The second piece is the adopted Active Risk Budget. The Board has assigned modest additional risk to take beyond the SAA and generate a return through active management. This additional active risk is shown in the purple and broken into two parts: *Selection* in Public Markets and *Allocation* in Private Markets. The below schematic summarizes the proposed 2020 risk budgeting framework:



To evaluate the success of portfolio implementation, PERA utilizes a key benchmark: the Internal Policy Portfolio Benchmark. The Policy Portfolio Benchmark is a passive and liquid representation of the Board adopted SAA. This is the portfolio the Board has directed Staff to implement from the Board's adopted strategic asset allocation. Performance in excess of this Policy Portfolio Benchmark reflects the benefit of active implementation decisions, both liquid and illiquid, allocated in accordance with the Board's adopted active risk budget as shown above.

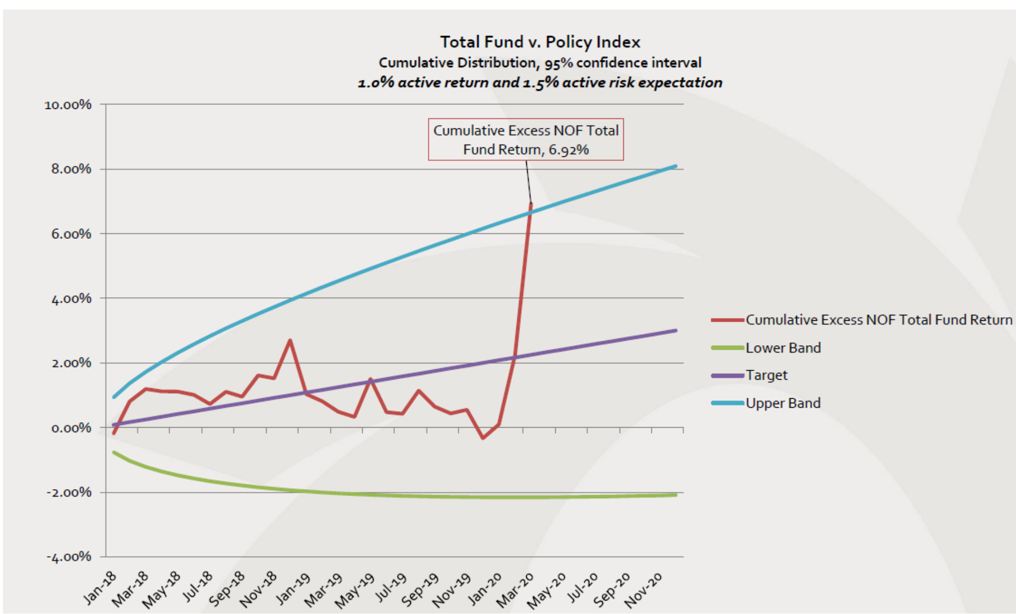
Another comparison is the Reference Portfolio. The Reference Portfolio sets a baseline risk tolerance for the fund for a simple liquid index portfolio. The current Reference Portfolio is set at 58% stocks and 42% core bonds. This is expected to generate volatility over the long term around 10.5%. This serves as the risk tolerance anchor whereby the Policy Portfolio and Active Risk Budget, combined, replicate the total risk of 10.5%. Because the Policy Portfolio and active risk implemented are different from the Reference Portfolio, comparisons in the short-run will wax and wane. However, over the long-run, 10-years or longer, it is expected the Policy Portfolio and active return should do better due to diversification and efficiency gains.

The first chart is performance relative to the Policy Portfolio benchmark since PERA adopted a risk budget in 2018. **Performance has been well within expectations and we are ahead of the benchmark.**

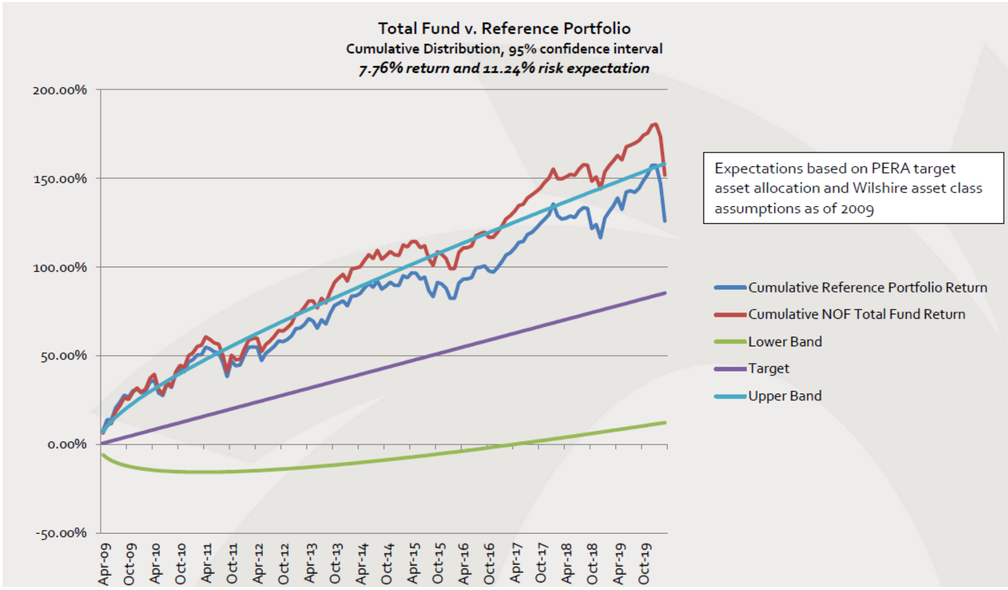


The second chart provides a focus on the active risk the portfolio is taken relative to the Policy Portfolio benchmark. With the Board adopted risk budget above, PERA is seeking to take a target of 1.5% tracking error or deviation from the Policy Portfolio benchmark to generate an excess return above the Policy Portfolio of 1.0%. This extra 1.0% return is through active management and is excess that PERA would not otherwise gain by investing in just the Policy Portfolio benchmark.

As the chart highlights, as of March 2020, **we are on track for producing that 1.0% excess or active return.**



The final chart is tracking performance against the Reference Portfolio for the past 10 years. The red line is PERA's cumulative performance and the blue line the cumulative performance of the Reference Portfolio. **Overall, PERA has been able to add value over the long-run 10 years and longer.**



Challenges

The aftermath of Covid-19 and its knock-on effects present future challenges for portfolios. For investors, the biggest challenge is the rate of return on cash. It is important to understand the building blocks of total returns. All total returns on assets begin with a foundational return of cash. For instance, investors enjoyed a roughly 3% average return on cash for 30 years prior to the Covid-19 onset. If an investor held a 60% stock and 40% bond portfolio during that time, they enjoyed a roughly 5.5% risk premium *OVER* cash for a total return of roughly 8.5%.

However, post-Covid-19 monetary policy makers have driven cash rates near zero, with the expectation cash rates will be low for some time. Thus, the challenge for long-term investors is being able to make up the 3% difference in lower cash rates.

1. **Low Return Environment**

Despite the challenge of low cash rates, there is room to be optimistic. A silver lining of distress scenarios is that future expected risk premiums or returns on risky assets tend to increase. Also, **there is opportunity through various active management strategies to produce additional returns.**

The following chart provides some optimism. The chart is the expected total returns of assets for the next 10-years from PERA's investment consultant—Wilshire Associates. As t**he chart highlights in the change column, returns on risky assets have generally gone up post-Covid-19. However, expected return on more income or safety assets have gone down.**

	TOTAL RETURN (%)			RISK (%)
	MAR 2020	DEC 2019	CHANGE	
U.S. STOCKS	6.75	5.75	1.00	17.00
DEV. EX-U.S. STOCKS	7.25	6.25	1.00	18.00
EMERGING MARKET STOCKS	7.25	6.25	1.00	26.00
GLOBAL STOCKS	7.20	6.20	1.00	17.10
PRIVATE EQUITY	8.40	7.95	0.45	28.00
CASH EQUIVALENTS	0.70	1.85	-1.15	1.25
CORE BONDS	1.80	2.85	-1.05	5.15
LT CORE BONDS	2.70	3.25	-0.55	9.85
U.S. TIPS	0.70	2.15	-1.45	6.00
HIGH YIELD BONDS	5.40	4.30	1.10	10.00
EMD LOCAL CURRENCY (HDG)	5.10	4.35	0.75	5.00
U.S. RE SECURITIES	5.60	5.00	0.60	17.00
PRIVATE REAL ESTATE	7.00	6.60	0.40	14.00
COMMODITIES	1.85	3.60	-1.75	15.00
MIDSTREAM ENERGY INFRA.	9.25	7.70	1.55	19.00
GLOBAL LISTED INFRA.	6.00	5.30	0.70	17.00
PRIVATE INFRASTRUCTURE	8.35	6.95	1.40	25.00
REAL ASSET BASKET	5.65	5.90	-0.25	8.75
INFLATION	1.15	1.75	-0.60	1.75
RETURNS MINUS INFLATION				
U.S. STOCKS	5.60	4.00	1.60	
U.S. BONDS	0.65	1.10	-0.45	
CASH EQUIVALENTS	-0.45	0.10	-0.55	
STOCKS MINUS BONDS	4.95	2.90	2.05	
BONDS MINUS CASH	1.10	1.00	0.10	

Solutions: Bridging the Return Gap

The road ahead is undoubtedly challenging to meet actuarial hurdles, but there is some room for optimism. Given the stress and market dislocation of the pandemic, future expected risk premiums increased. Second, because of dislocation the active return opportunity set has improved. The following summarizes the effects of the opportunity in PERA's framework: Strategic Asset Allocation (Policy Portfolio) and Active Risk Budget.

1. ***Strategic Asset Allocation (Beta)***
   By maintaining PERA's diversified asset allocation and modest expected increases in risk premiums, the median 10-year expected return coming from the Strategic Asset Allocation is 5.62%. To be clear, while this is an increase, this is still significantly lower than historical standards. The main difference being the expected return of cash at near zero.

The next set of strategies are part of the active risk budget discussed earlier. There are two key pieces in the active risk budget: *Allocation*, which is predominately private asset active management and *Selection,* which is predominately public market active management.

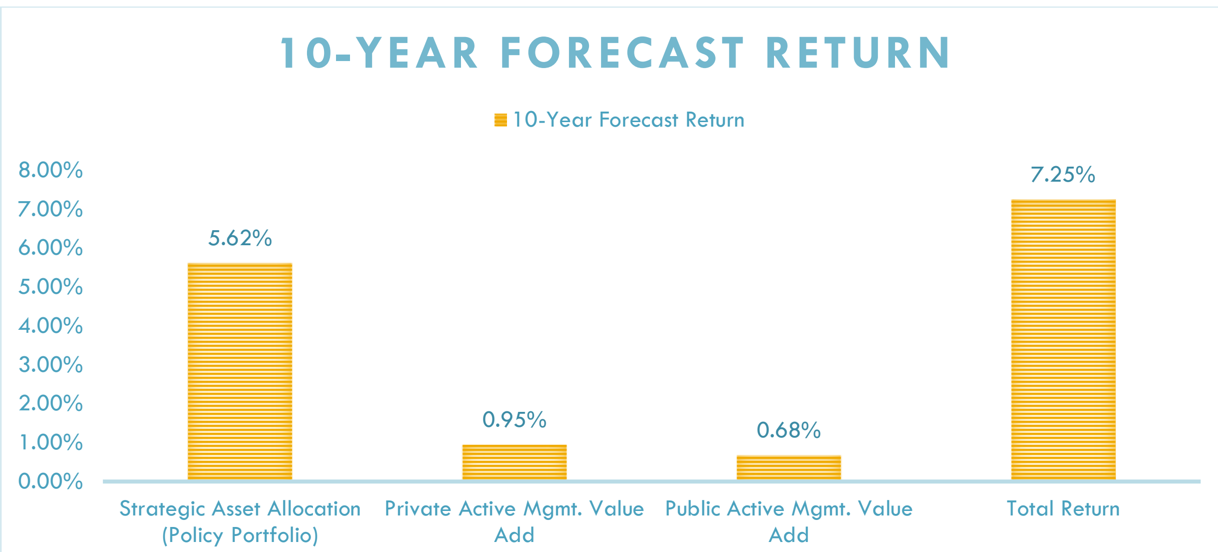
2. ***Private Asset Active Management (Allocation)***
   Back in 2015, PERA set capital target allocations to private assets across Equity, Credit, Real Estate and Real Assets at 28% of the total portfolio. Because of the nature of private markets, it has taken 5 years to get to the targets. For 2020, we believe we can make those targets. As a result of our liquid positioning and good posture coming out of Covid-19 market dislocation, PERA is in a strong position to take advantage of opportunity here. Not only are we able to stick to our

pacing plans and reach our targets, but because of our liquidity and governance we can look for opportunistic coinvest and secondary deals to enhance returns. In private markets, investing during distress years tend to produce some of the best returns. We estimate in our proposed 2020 active risk budget, our allocation to private market active management can produce an additional 0.95% return to the trust fund.

3. ***Public Active Management (Selection)***
   Due to the market dislocation, PERA sees active opportunity in public markets. Generally, this opportunity set is strongest with strategies that demonstrate strong security selection skill. This is most effective via long-short strategies. Additionally, because of the dislocation in credit markets, PERA sees an opportunity to flex active allocations into active credit strategies. All these effects in public market active management we expect to produce an additional median return of 0.68% for the trust fund.

Finally, **when putting these three strategies together, we come to an expected median return over the next 10 years of 7.25%, which is also our actuarial hurdle.** To be clear, getting to the actuarial hurdle includes assumed returns for active management. Historically, most, if not all the actuarial assumed return could be achieved through Strategic Asset Allocation. Again, because of the low-return environment due to near zero cash, that becomes challenging.

The below graph summarizes the total median return expectations as discussed.



Conclusions

Undoubtedly, **the aftermath of Covid-19 creates a challenging period for long-term investors.** That challenge specifically is near zero expected returns on cash, which lower total expected returns. Thus, creating an assumed low return environment going forward.

Fortunately for PERA, the passage of SB 72 in the 2020 legislative session sets PERA on a more sustainable path to weather this storm and continue to meet benefit obligations for decades to come. Moreover, despite the swift and deep market drawdown, PERA's portfolio was able to weather the

storm, pay monthly benefits, and importantly stay liquid. PERA did not have to sell any distressed assets.

Looking ahead**, PERA is in a strong position to take advantage of opportunities.** The opportunity set lies in private active management, where PERA can increase and achieve long-run targeted allocations at a time where private asset investing tends to produce its best results. In addition, public market active management poses opportunity particularly in credit strategies and strategies that seek strong security selection.

Finally, because of increased risk premiums and the opportunity set in active management, P**ERA's combined strategies have a median 10-year expected return at roughly the 7.25% actuarial hurdle.** Some room for guarded optimism. To be clear, achieving this return over the next 10 years will be challenging and will not be a straight path. But, with SB 72 as a tailwind, the outlook for PERA is strong.