FUNDING UPDATE
Colorado's Public Employees' Retirement Association

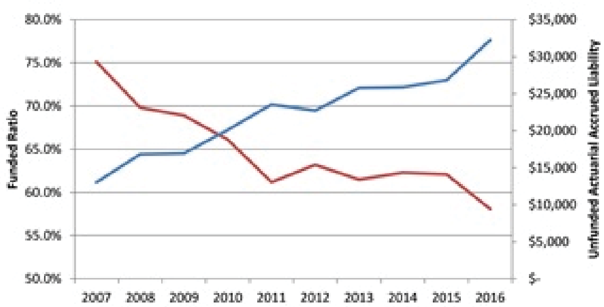
November, 2017

AQUILA® GROUP OF FUNDS

AQUILA® Tax-Free Fund of Colorado

Kirkpatrick Pettis Capital Management, as sub-adviser to the Aquila Tax-Free Fund of Colorado (the "Fund"), places a significant amount of time and resources into understanding the credit risks affecting the municipal markets landscape. A key component of our credit review process is analyzing pension costs, contribution rates, funded levels and any future increases that could cause budgetary pressure for portfolio holdings. In June 2017, Colorado's Public Employees' Retirement Association (PERA) released its 2016 Annual Report and reported a 20% increase in its unfunded liability, and decrease in its funded ratio, which are both serious concerns. The most recent actuarial valuation from December 31, 2016, shows that full funding is significantly greater than 30 years for all five divisions of PERA.

PERA Funding History ($ in millions)



Source: Public Employees Retirement Association.

Of PERA's divisions, the school division has the largest unfunded liability, which accounts for $18.9 billion, or over 50%, of the $32.2 billion liability. School Districts represent close to 25% of the Fund, all of which have historically met their annually required PERA contributions. While school districts begin preliminary work on next year's budget, PERA is on a statewide tour to educate its members on the plan, and to discuss recommended reforms that are expected to reduce the overall risk profile and improve the plan's funded status.

Colorado's statutory required contributions to PERA are one of our primary credit considerations and also part of the underfunding problem. Statutory mandated increases to PERA contribution rates have accelerated in recent years for local governments. School districts have also assumed more of their total funding due to reduced state funding and often limited budgets. Furthermore, the difference between the actuarially determined contribution rates and the statutory required contribution rates that Colorado school districts contribute has been over 3% in each of the last three years and is estimated to exceed 6% in 2018.

Out of all of the pension funding sources, investment returns have the biggest impact. The growth in PERA's unfunded liability has been primarily due to investments returning less than the assumed investment return, followed by actuarial assumptions and amortization methods not being achieved, along with insufficient contributions. However, due to relatively low investment returns versus the assumed rate of return, PERA's unfunded liability continues to grow, even after the equity market has recovered from the lows of the financial crisis. Over the most recent year, PERA's returns were 7.3%, rather than the 7.5% assumed rate of return. For 2017, the assumed rate of return will decline to 7.25%, and PERA has only projected a 50% probability of achieving that result.

The role that public pensions can play during extreme credit stress is a significant concern for the nation. Although municipal bankruptcies are historically rare, there have been several notable events, including cases in California and Michigan, where public pensions have competed with general obligation bond holders during reorganizations. One of the benefits of Colorado's debt structure is that the state is prohibited from issuing general obligation bonds. What this means to bondholders, is that the types of debt that typically compete with public pensions are not even offered in Colorado.

Another important point to consider is that many local governments in Colorado do not participate in PERA. Firefighters and police officers participate in a statewide defined benefit pension plan administered by the Colorado Fire and Police Pension Association, which is 102.4% funded. Furthermore, contribution rates vary from one local government to another, which is why we review each of our portfolio holdings individually. In addition, many local governments do not offer a defined benefit pension plan to their employees.

As PERA's liability continues to develop, we have become increasingly selective of the credits we are willing to hold and acquire. Although PERA is working on implementing reforms, which is a positive step to maintaining its long-term sustainability, we will continue to monitor PERA's funded ratio and any legislative actions taken to address its unfunded liability. Furthermore, we will continue to emphasize portfolio holdings that have made financial preparations for the increases, and have a plan to absorb the increases without spending reserves or reducing staff and services.