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President, Wilshire Consulting

October 15, 2019

Mr. Rob Feckner
Chair of the Investment Committee
California Public Employees' Retirement System
400 Q Street
Sacramento, CA 95814

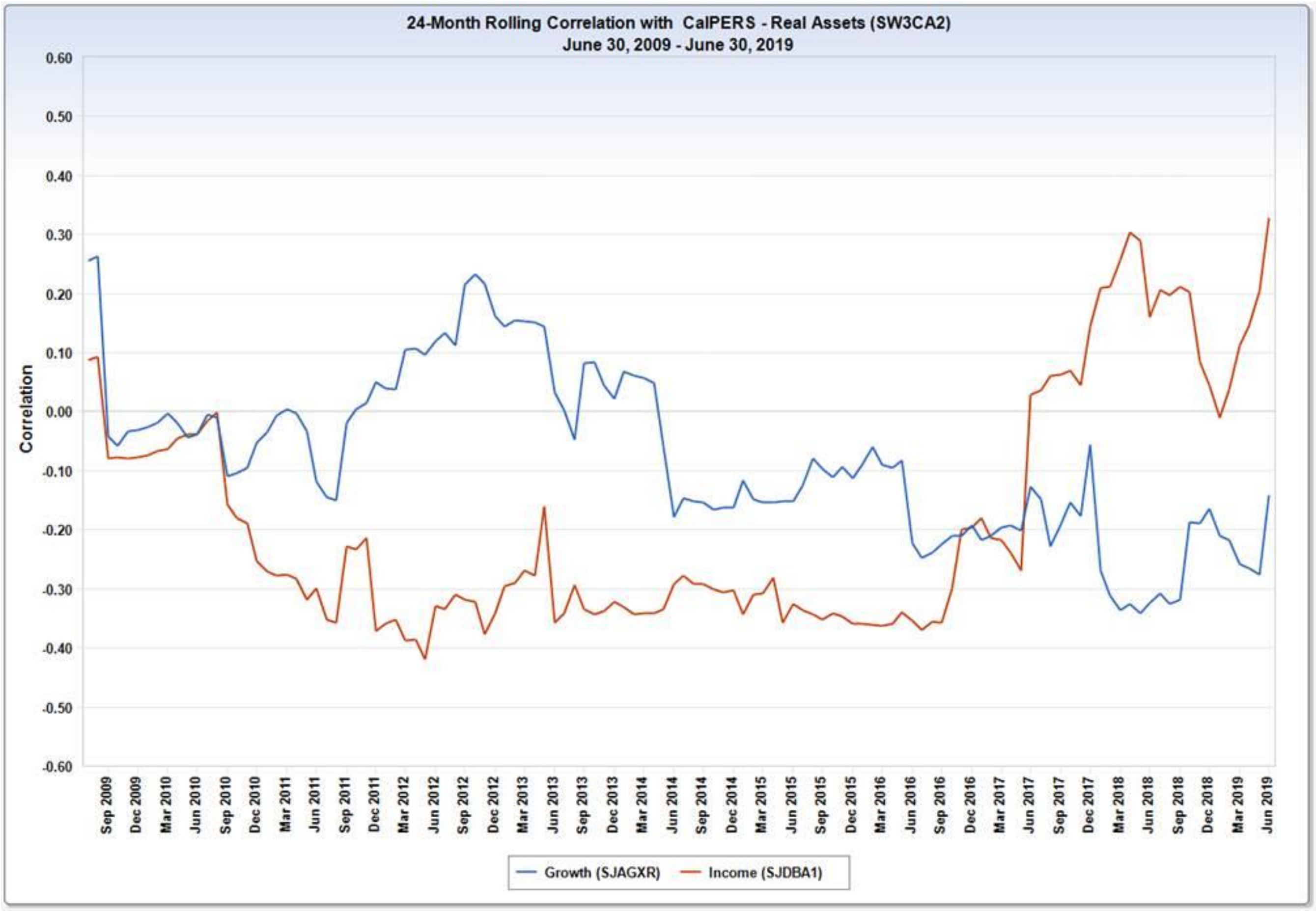
Re: Real Assets Program Review

Dear Mr. Feckner:

You requested Wilshire's opinion with respect to the Real Assets Program Update. In addition to our duties as the General Pension Consultant to the Investment Committee, Wilshire acts as the Investment Committee's Forestland Consultant. Therefore, Wilshire is providing comments on the total Real Assets Program and the Forestland Program.

Strategic Role and Investment Beliefs

The strategic role of the Real Assets Program is to provide stable cash flows, serve to provide long-term inflation protection and act as an equity risk mitigant. For the past five years, the Real Assets Program has consistently produced a net income return of approximately 3.5% (higher for core assets – 4.0%) with total returns well in excess of US inflation. In addition, the 5-year correlation between the returns of the Real Assets Program and global equities has been low, measured at -0.14, down from 0.02 one year ago. It is important to note that asset class correlations are notoriously unstable and that in times of crisis they tend to increase. This is evident in the following chart that plots the rolling 2-year correlation of the Real Assets program relative to both the Growth and Income portfolios. Broadly, each has exhibited low levels of correlation outside of the end of the Global Financial Crisis in 2008 and equity market turmoil in 2012.



As we noted last year, Wilshire believes that the program is positioned more defensively today than during the Global Financial Crisis and, therefore, should provide the PERF greater diversification against an equity drawdown event.

The Real Asset Program is supported by a number of CalPERS' Investment Beliefs. First, Investment Belief 1 states that "Liabilities must influence the asset structure." This is evident in the Real Asset Program's strategic role. The Program requires a long-term investment horizon and thus corresponds well with Investment Belief 2, which states, "A long time investment horizon is a responsibility and an advantage." The Real Assets Program also addresses Investment Belief 4 regarding multiple forms of capital – notably, in terms of how environmental practices can impact the long term returns of the Program.

Real Assets Program Overview

The performance of the Real Assets Program lagged its benchmark during the past fiscal year, led by significant negative returns from the Forestland portfolio (discussed below), offset to some degree by continued positive excess returns from Infrastructure. The bulk of the Real Assets Program is invested in Real Estate, which lagged its benchmark over the past year.

As with any private asset class, shorter term returns may not fully capture the true performance of a program. Wilshire believes some of the Real Assets Program's returns have been affected by Staff's conservative approach to writing down part of the retail portfolio throughout the fiscal year, which were not fully incorporated into the benchmark. We believe the benchmark's valuation levels for retail may "catch up" to the more timely valuation used by Staff.

Wilshire continues to believe that the Real Assets Program is appropriately structured and implemented to benefit the entire portfolio.

Forestland Program

The strategic role of the Forestland Program is to provide cash flow and capital appreciation while serving as a long-term hedge against inflation. The Forestland Program has continued to have poor absolute and relative performance, which will be discussed in greater detail below.

Background

As we have discussed with the Investment Committee, the Forestland portfolio liquidated a large holding – Crown Pine – during FY 2018-2019. Crown Pine was sold at a loss to the carrying value at the beginning of the period, creating significant negative returns. However, Crown Pine was not a good strategic fit for the portfolio and the future projected returns were likely to be bleak: the position had leverage and governance issues that prevented a more patient approach to managing the timber assets and was concentrated largely in the Southeast where timber prices have lagged for some time (see graphs below[1]).

[1] Source for all graphs: Forest Investment Associates, Second Quarter Update 2019

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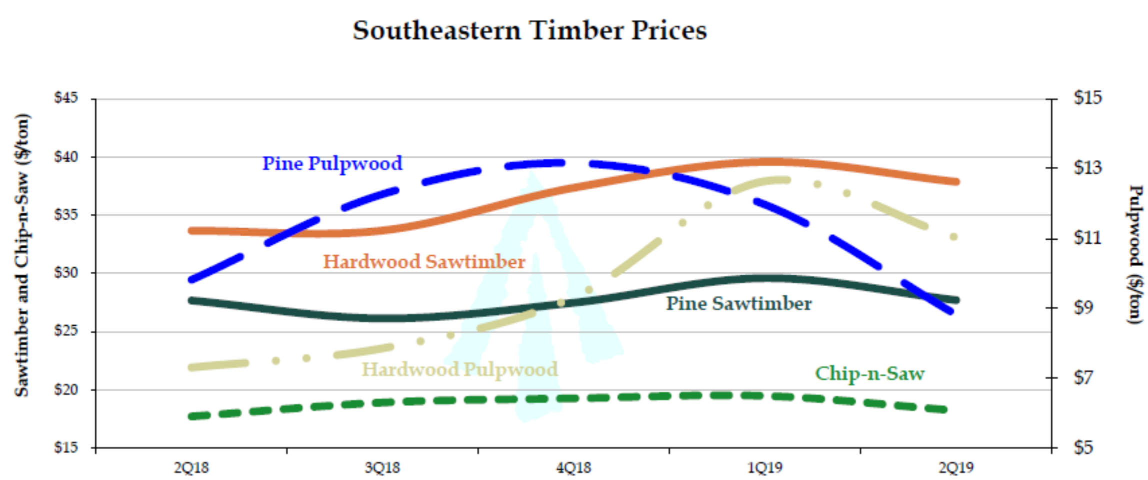
The existing Forestland assets remain geographically diversified and have stronger governance. Staff now has the flexibility to properly manage the remaining assets and retain or sell based on whether the assets are a fit with the Strategic Plan for the Real Assets Program. The current portfolio is geographically diversified with approximately 70% of its value in US markets and 30% overseas. Leverage has been essentially removed from the portfolio with the sale in FY 2018-2019.

Because the entire Real Assets Program has a unified benchmark reflecting real estate, Forestland no longer has a dedicated allocation target and must, therefore, compete to be in the portfolio by being more attractive than other available opportunities in the Real Assets Program. Wilshire believes this is appropriate for Forestland given the size of the market relative to CalPERS' asset base.



Source: Forest2Market®

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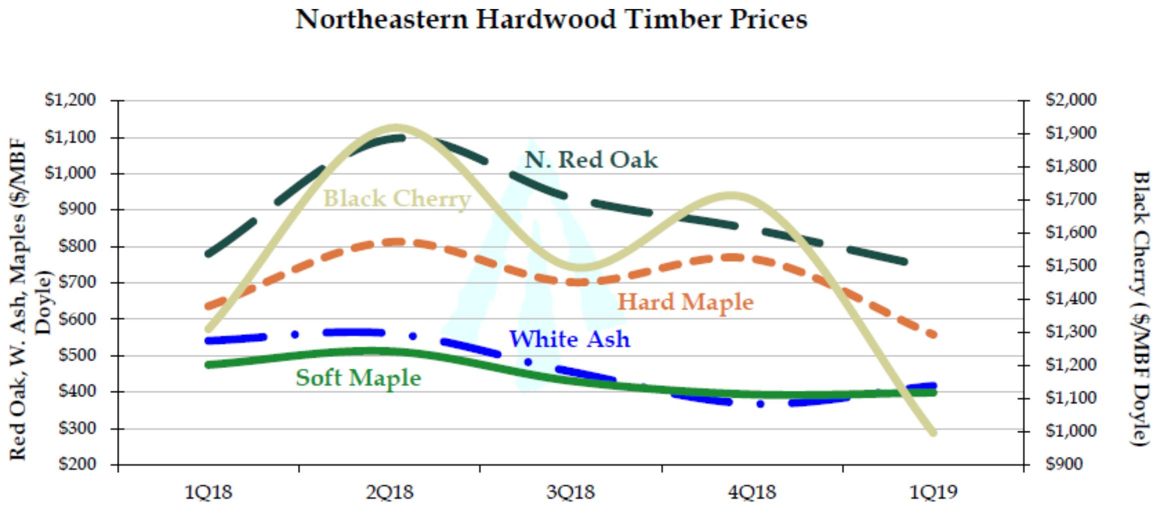
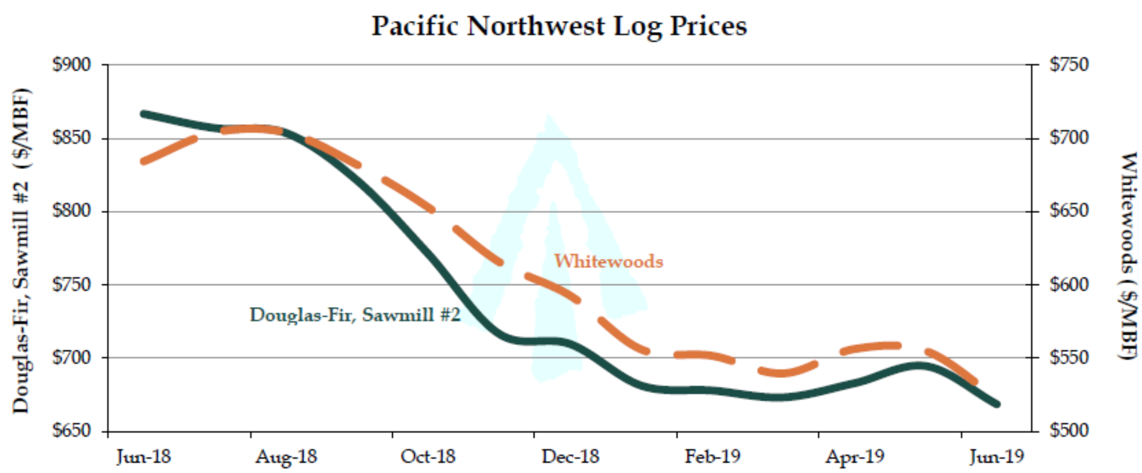


Source: Pennsylvania Woodlands Timber Market Report - Northwest Region



Source: Log Lines®

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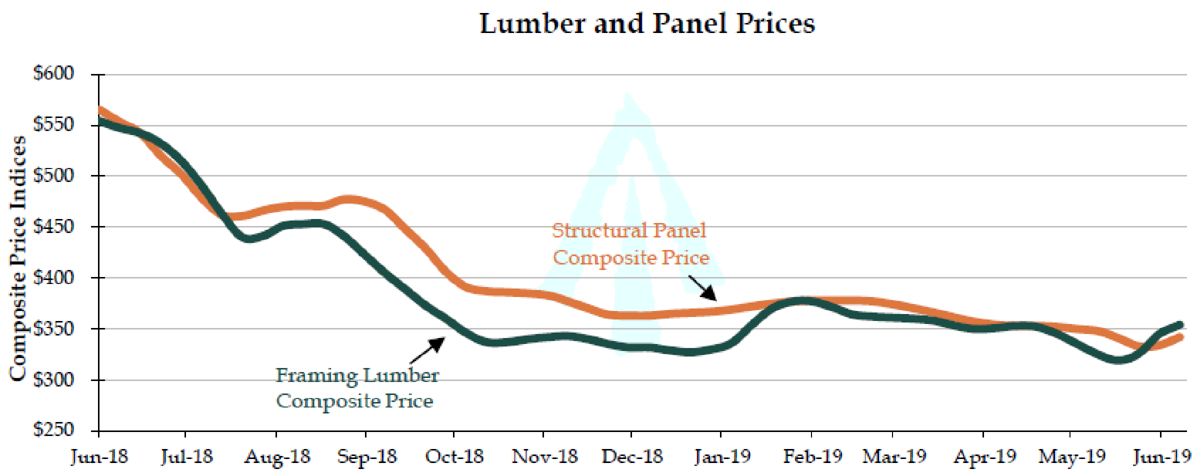

Source: Random Lengths®

Conclusion

The Forestland portfolio has been significantly remade but faced several structural issues – lack of regional exposure to the U.S Northeast and Pacific Northwest, leverage, and the timing of the original purchases – many of which were addressed with the Crown Pine sale.

The returns of the Real Assets Program have lagged its benchmark over the past year. Significant progress has been made in positioning the portfolio to best serve CalPERS.

Should you require anything further or have any questions, please do not hesitate to contact us.

Best regards,