



To: WSLCA Members
From: Tobin Follenweider, WSLCA Asset Management Committee Chair
Date: September 14, 2016
Re: *Principles of State Trust Portfolio Management*

This memo and attachment concern WSLCA's *Principles of State Trust Portfolio Management*. The portfolio management principles are the result of WSLCA Asset Management committee meetings between 2014 and 2016.

Principles of State Trust Portfolio Management provides a consistent understanding of state trust asset portfolios, and identifies a set of tools for managing portfolios in support of increasing returns for trust beneficiaries and reducing financial risks over an intergenerational timeframe. This document assists states with building robust state trust portfolio management practices that are appropriate to a state's specific portfolio, while employing a standard set of principles and best practices.

This document is a starting point for WSLCA and its members. WSLCA will continue to explore these concepts in more detail, and may develop and publish additional studies that delve deeper into some of the concepts contained within *Principles of State Trust Portfolio Management*.

Potential future areas of study:

- Valuating Assets
- Reporting Revenue
- Creating Target Asset Allocation
- Defining and Addressing Risk
- Determining Portfolio Goals and Policies
- Managing Performance
 - Measuring Outcomes
 - Processing Efficiency
 - Establishing Decision-making Criteria
- Selecting Managers and Trustees
- Governing Responsibly

PRINCIPLES OF STATE TRUST PORTFOLIO MANAGEMENT

INTRODUCTION

Principles of State Trust Portfolio Management assists state trust managers in understanding and managing state trust asset portfolios. This document explores state trust portfolio challenges, asset categories, financial performance characteristics, portfolio goals and best practices for portfolio governance.

Within the context of each state trust portfolio's physical, economic, legal, and political realities, the state trust manager should find ways to institute portfolio management principles. These principles help state trust managers meet their fiduciary responsibility and provide value-added benefit for generations of beneficiaries.

Topics covered in this document:

- State Trusts – Page 3
- State Trust Asset Allocation – Page 4
- State Trust Portfolio Goals – Page 7
- State Trust Portfolio Governance – Page 10
- State Trust Portfolio Management – Page 12

Portfolio Terms:

- *Financial Assets* – Primarily, bonds and equity securities. Financial assets can be easily sold and are generally traded on a public exchange.
- *Real Property Assets* – Land and anything affixed to it, as well as rights and interests. Real property assets are generally illiquid in that they require a certain amount of time to be sold.
- *Rebalancing* – Periodically buying, selling or trading assets to change the mix of assets to the desired or target asset allocation.
- *Total Returnⁱ* – Measuring both income return and capital (value) appreciation over a given evaluation period.
- *Risk and Risk Premium* – Both risk and risk premium involve understanding specific investment risks (e.g. total loss of the investment, technology change, inflation, etc.) then seeking financial compensation to cover the risk. The risk premium is the amount by which the return on a risky asset must exceed the return on a risk-free asset.
- *Diversification* – “Many investment eggs, in many asset baskets.” Diversification is a risk management strategy that mixes a wide variety of investments within a portfolio to yield a higher return and a lower risk than individual investments found within the portfolio.
- *Hedge* – Risk management strategy that functions like an investment insurance policy.
- *Liquidity* – The degree to which an asset can be sold without affecting its price. Financial assets are viewed as liquid investments and can typically be sold in a relatively short amount of time. Real estate assets are generally considered illiquid investments because they require more time to be sold.
- *Volatility* – Variations in price over time. Volatility is not necessarily problematic when considering an entire portfolio as long as an investment's volatility is offset by, or is not correlated with, another investment.

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STATE TRUSTS

As part of statehood, most states west of the Mississippi River received grants of federal land to assist in funding of public education and other governmental programs. Known as school lands, trust lands, or grant lands, these properties were dispersed throughout the states. The assets were designated into solemn trusts to provide benefit to specific public beneficiaries in perpetuity.

Today, there are more than 440 million acres in land assets and more than \$10 billion in financial assets, all managed for the benefit of public schools and other public institutions. Land offices, land commissions, land boards and state treasuries in 23 western states administer these assets and investments.

One of the greatest challenges facing state trust administration is developing and maintaining a diversified portfolio, which can generate long-term, sustainable benefits for generations of trust beneficiaries. Many state trusts rely heavily on a few, commodity-based income sources to generate revenue for trust beneficiaries. Similarly, large parts of the value of state trust portfolios consist of illiquid, low-return assets that are geographically dispersed throughout each state.

Adding to these physical and economic realities are many legal and political challenges for state trust portfolios. Governmental rules, regulations, and funding sources are often inconsistent and sometimes at odds with trust responsibilities. States have varying degrees of legal ability to make changes to, and reinvestment in, their state trust portfolios. Local economies and local communities have come to rely on state trust assets for stability and longevity.

Tackling these challenges requires a thoughtful, transparent, and structured approach to state trust portfolio allocation, the establishment of appropriate state trust portfolio goals, and the institutionalization of strong state trust portfolio governance that incorporates best practices and builds on the experiences and strategies of similar long-term portfolio managers. Prudent portfolio management principles help state trust managers make better individual investment decisions and, ultimately, help them achieve their fiduciary mandates.

KEY CONCEPTS:

- State trusts portfolios are endowments with a perpetual life
- State trust portfolios have many physical, economic, legal and political challenges
- Prudent portfolio management principles should be used as part of making individual investment decisions

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STATE TRUST ASSET ALLOCATION

State trust portfolio land asset allocations are accidents of history. Real property assets were primarily granted based on a land grid and were not tied to specific resources. Consequently, state trust portfolios are not well diversified as a whole and many still reflect their original grants.

Rebalancing state trust portfolios is challenging. Land, mineral and commercial assets are dependent on price, location, access and the economy. Real property assets cannot be easily sold, traded or, in some cases, even used for economic benefit. Financial assets are easier to sell but tend to be managed by an entity outside of the state land board¹. The entities that manage financial assets may not manage these assets in a manner that considers the entire state trust asset allocation. In the end, land, minerals, buildings, and financial assets are components of a single portfolio, and, to the extent possible, should be managed as a single portfolio.

Long-term Large Portfolios

In the view of modern financial management, state trust portfolios and their challenges are unusual, but not unique. While many large (>\$1 billion in total assets) US colleges, universities and private foundations have less than 10 percent of their holdings in real property assets, there are numerous other large long-term investors that have extensive experience with real property asset investments and management (Exhibit 1).

Exhibit 1: Large Portfolios Real Estate Examplesⁱⁱ

Category	Real Estate Assets
Large US Colleges and Universities	7%
Large US Private Foundations	4%
Trinity Church Wall Street (NY)	100% (\$3 billion)
Kamehameha Schools (Hawaii)	30%
Oxford / Cambridge Colleges (UK)	≈30%
Colorado State Land Board	68% (incl. mineral)
Oklahoma Land Board	35% (excl. mineral)

Asset Categories

When considering the state trust portfolio, it is important to understand the various categories of portfolio assets, how these asset categories work together, and what might be missing.

At the highest level, asset financial performance is either correlated with inflation (the financial returns rise and fall with inflation) or correlated with economic growth (the financial returns rise and fall with economic growth). Therefore, assets can be categorized in four broad categories: *growth assets*, *inflation hedge assets*, *deflation hedge assets* and *diversifier assets*:

- **Growth assets**, such as equity securities, produce financial returns based on economic growth
- **Inflationary hedge assets**, such as land, minerals, buildings and commodities, produce returns that keep pace with inflation over the long term

¹ In Wisconsin, Oklahoma, North Dakota and Texas, real property and financial assets are managed by the same agency.

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- **Deflationary hedge assets** are bonds and other fixed-income-type investments that offset periods of price declines; while Japan and Ireland have experienced long periods of deflation within the past decade, significant deflation has not occurred in the US since the Great Depressionⁱⁱⁱ
- **Diversifier assets** are generally complex financial instruments, such as certain hedge funds, which attempt to generate uncorrelated financial returns by combining a diverse array of inflation- and growth-correlated investments

Some individual investments may serve multiple functions in a portfolio and may fit into more than one of the above categories.

Growth and Diversifier State Trust Assets

Growth and diversifier assets are two broad categories of financial assets. As a group, these assets generate returns that track with overall economy and exceed inflation over the long term. Unlike inflationary hedge assets, the inflation-adjusted (“real”) value of growth or diversifier assets exceeds inflation rates and results in a net gain for the investor.

Most state trust portfolios contain some level of investment in growth assets (e.g. domestic and international equities) while only a few state trust portfolios contain diversifier assets (e.g. private equity).

Inflationary Hedge State Trust Assets

Given the nature of the federal land grants, state trust portfolios have a high proportion of inflationary hedge assets. While each inflationary hedge asset has its own characteristic, the land, mineral and commercial assets generally increase as inflation increases, thereby serving as protection against the risk of inflation.

Because land prices may lag behind inflation, land investments can be viewed as inferior inflationary hedges to other assets. Still, within the portfolio context, land typically produces low, but steady cash return, like a bond,^{iv} and serves as a valuable portfolio asset.

As commodity-based assets, state trust mineral assets are classic inflationary hedges; commodity prices and inflation are one in the same. State trust portfolios often have one or two major mineral revenue sources (e.g. oil and gas) that are subject to high price volatility and, therefore, do not always function well individually as inflation hedges.

Commercial assets bring together the price stability of land and the inflationary alignment of minerals. In addition, commercial assets tend to experience better financial returns over the long term than do vacant land assets or commodities.^v Still, commercial assets are generally more complex to manage, and depreciation and associated maintenance expenses may negatively impact long-term returns.

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Deflationary Hedge State Trust Assets

State trust financial assets have traditionally been held in low-risk, fixed-income instruments such as US Treasury Bonds. Bonds serve as deflationary hedges in that if prices and/or interest rates decline, the value of bonds increase. Some states continue to invest a high portion of their state trust financial assets in fixed income.

The historical preference for bonds in state trust portfolios is based on the perception that these investments are “riskless” and, therefore, appropriate for perpetual, intergenerational endowments. However, a recent Commonfund Institute publication states:

This approach ignores the fact that economic and interest rate fluctuations could lead to losses and – perhaps most important of all – purchasing power. Bond investments are eroded by inflation so that, in the absence of other factors, the real value and purchasing power of the bond investment could be substantially reduced by the time the bond matured.^{vi}

Once a bond matures, the cash cannot buy as much as it could when the bond was initially purchased – less purchasing power – and the interest earned during the life of the bond may not be enough to offset the decline in purchasing power because inflation may be higher than when the bond was acquired. This is particularly problematic in some state trust portfolios where all of the interest earned on fixed-income investments is spent each year and is not reinvested into the trust corpus in order to maintain purchasing power.

As financial markets have matured, many states have modified their legal structure in order to permit investment in equities and other higher risk and historically higher return investments.

KEY CONCEPTS:

- Financial performance is correlated inflation or economic growth
- Real property assets have similar financial performance characteristics
- Bonds are not inherently riskless investments

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STATE TRUST PORTFOLIO GOALS

Portfolio goals help to drive investment decision making and guide changes to the portfolio allocation over time. Portfolio goals should be deliberate, reasonable and prudent. Portfolio goals should include moving toward a diversified asset allocation and a sustainable rate of return in excess of inflation in order to support all generations of beneficiaries.

Asset Allocation

Establishing a diversified asset allocation should include consideration of the portfolio's mandate (why does the portfolio exist?), resource potential and financial return characteristics, risks and strategies to mitigate these risks, and target asset allocation.

Portfolio Mandate

State trust portfolios exist to provide perpetual benefit for trust beneficiaries. Said differently, the portfolio must provide intergenerational equity for the beneficiaries. The economist James Tobin helped to define the *Intergenerational Equity* concept in his 1974 publication *What is Permanent Endowment Income?* in which he wrote, "The trustees of endowed institutions are the guardians of the future against the claims of the present. Their task in managing the endowment is to preserve equity among generations."^{vii} While this concept may be translated and/or expanded through a state's laws, intergenerational equity remains a core principle to state trust management.

Portfolio Resources

State trust portfolios have enormous potential that can be managed to meet the intergenerational equity mandate. Land scarcity, brought on by population growth, will continue to grow land values in the future. Mineral resources are also subject to scarcity, but, unlike land, development and extraction can exhaust these resources. Technological change also impacts the mineral resource value.² Commercial assets produce reasonable near-term returns but require specific management expertise and, without regular reinvestment, can also become obsolete (fully depreciated) over time. Financial asset investments are more easily diversified and can produce long-term growth, but these investments are subject to higher volatility and risk, which stakeholders must be must willing tolerate.

Target Asset Allocation

Developing a target asset allocation starts with a discussion of the portfolio resources and existing portfolio categories – *growth, inflation hedge, deflation hedge and diversifier*. The state trust manager should evaluate the pros and cons of each portfolio category and the risks (e.g. inflationary, technological, market, political, etc.) that are posed by each component of the current allocation, and how asset reallocation can mitigate these risks. This review should result in a target asset allocation that guides areas for investment. The selected asset allocation must also consider the trust portfolio's spending policy.

² For example, many states received "salt lands" which were properties that contain salt resources and were considered an extremely valuable resource for hundreds of years. The technological ability to mass produce salt completely altered salt's resource value.

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Portfolio rebalancing requires the state trust manager to regularly revisit the reallocation targets and associated assumptions (expected risk and return). The state trust manager will experience shifts in political, legal and physical constraints, and need to be able to respond. As noted by the Commonfund Institute, rebalancing the portfolio takes flexibility and discipline, and should be defined by a specific policy statement^{viii}.

Sustainable Returns

Long-term investors, such as endowments, foundations and sovereign wealth funds, pursue a *total return* strategy whereby both annual income and capital (value) appreciation are considered when measuring financial performance. Focusing on income and appreciation separately distorts the investment process and diminishes long term returns. Total return targets for long-term investors can vary between six percent and eight percent per annum as measured over multiyear time horizon³. Pursuing total returns in excess of the eight percent is generally not considered sustainable^{ix}. Total return targets for long-term investors often consist of four percent income, three percent capital appreciation, and one percent operations.

State trust portfolios should be able to generate average annual returns similar to other long-term endowments. However, state trust portfolios are not well-diversified and tend to have high representation of certain asset categories (e.g. inflationary and deflationary hedges) resulting in lower average annual returns and/or higher volatility.

Investment Tools

If, in a single year, long-term investors make more than the required return or otherwise meet their required pay-out or withdrawal policy (see Beneficiary Expectations below), the long-term investors retain their earnings and reinvest those proceeds into the fund's corpus. This has the effect of balancing the windfall across generations. When portfolio returns are low, long-term investors often rely on a reserve fund or similar strategy^x to provide consistent income to beneficiaries and meet their goals.

State trust portfolios should have mechanisms to reinvest some portion of the current lease income and sales proceeds, such as land sales, permanent easements or mineral royalty, into the trust corpus and/or reserve account, particularly when returns are high. However, this approach may be difficult for some state trust managers to achieve. Some state trust portfolios are prohibited from reinvesting money into the state trust corpus or the ability to reinvest money into the corpus is narrowly prescribed by law. Reserve accounts are also not common in state trust management, particularly given the annual budget process and statutory limits. Still, without such mechanisms, state trust portfolios will have difficulty building diversified portfolios, maintaining relatively consistent distributions in time of low earnings, and producing long-term sustainable returns for trust beneficiaries, which ultimately limits their ability to achieve intergenerational equity.

Beneficiary Expectations

When setting portfolio goals, it is essential for the state trust managers to understand the expectations of beneficiaries and key stakeholders (e.g. state legislators and governors). Without clear and regular

³ While many investors use a 3-year moving average, some recommend a moving average of 10 years or more.

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communication, beneficiaries and stakeholders can build programs that have funding requirements that are disconnected from the realistic capability of the state trust portfolio and at odds with prudent portfolio goals, themselves.

Endowments typically capture these beneficiary expectations in a “pay-out” or “spending” policy. This is the amount of money that leaves the portfolio and is not reinvested back into the trust’s corpus. Endowment withdrawals are often driven by specific funding requirements like grants or tuition support. For state trust portfolios, a spending target has to weigh the intergenerational equity impact and the overall sustainability of the spending rate relative to the portfolio performance targets. Having consistent spending policies from year to year provides stability which is essential to maintaining the long-term focus necessary for successful management of a perpetual endowment.

Exhibit 2: WSLCA Income Spending/Distribution Policy for Permanent Funds

Most state permanent fund distributions are set by a combination of authority or directives from the respective state constitution, state statutes and state investment policies. Several states make distributions based on a percentage of the value of their total trust funds while more than fifty percent of states distribute all or nearly all income every year.

KEY CONCEPTS

- As perpetual endowments, state trusts should target intergenerational equity
- Setting an asset allocation is an iterative process and should be done in a manner that diversifies the portfolio and reflects evolving investment opportunities
- Portfolio performance should be measured on a total-return basis, which considers both capital appreciation and income returns
- Mechanisms for reinvestment and reserves will help state trusts work toward intergenerational equity
- Having consistent and appropriate spending policies is essential to managing long-term investments
- Beneficiary and stakeholder expectations should be understood when setting portfolio return goals

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PORTFOLIO GOVERNANCE

Prudent portfolio governance involves making decisions that are transparent, consistent and intentional. State trust portfolio governance is guided by trust law and, specifically, the trustee's fiduciary responsibility to the beneficiary. Establishing robust practices for portfolio governance helps to ensure that decisions are based on the appropriate goals and the best information available at the time.

Portfolio Governance Standards

The Uniform Prudent Management of Institutional Funds Act (UPMIFA) sets broadly-accepted standards for prudent investment decision making and provides a good set of principles for state trust portfolio governance. UPMIFA has been codified into law in 49 of 50 states.

Exhibit 3 outlines key investment management principles under UPMIFA. Duties of loyalty, care, investigation, prudent decision making and minimizing costs should be familiar to most state trust managers. UPMIFA further delineates a trustee's fiduciary responsibility to include portfolio management concepts, including taking a portfolio approach, diversifying assets, disposing of unsuitable assets and generally having broad investment authority.

UPMIFA also outlines important operational concepts relevant to state trust portfolio management, such as seeking the right expertise when making decisions and delegating decision-making when appropriate (see UPMIFA Section 5). The use of third-party consultants, advisors, and other specialized staff can add credibility to decisions made by state trust managers. Using experts and delegating decisions, however, still requires the state trust manager to employ a "trust but verify" approach to any advice it receives.

Establishing Fiduciary Excellence

As public entities, state trust portfolio managers are required to conduct their management decisions in an open, fair, and transparent manner. Not only is this a legal requirement, but this practice also helps set beneficiary and stakeholder expectations, and illustrates the care and consideration that the state trust manager takes when managing the state trust portfolio.

Establishing fiduciary excellence involves effectively documenting the process for executing the state trust manager's fiduciary responsibilities^{xi}. This includes organizing, formalizing, implementing, and regularly monitoring the decision-making process to demonstrate an open, fair, and transparent process.

Exhibit 3: UPMIFA Investment Management Key Principles

Section 3. Standards of Conduct in Managing and Investing Institutional Fund

- **Duty of Loyalty** Subsection (b)
- **Duty of Care** Subsection (b)
- **Duty to Minimize Costs** Subsection (c)(1)
- **Duty to Investigate** Subsection (c)(2)
- **Prudent Decision Making** Subsection (e)(1)
- **Portfolio Approach** Subsection (e)(2)
- **Broad Investment Approach** Subsection (e)(3)
- **Duty to Diversify** Subsection (e)(4)
- **Disposing of Unsuitable Assets** Subsection (e)(5)
- **Special Skill or Expertise** Subsection (e)(6)

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Crucial elements that should be documented and implemented are the state trust manager's roles and responsibilities, portfolio investment and spending policies, portfolio risk management requirements, asset allocation targets, the process for selecting and evaluating managers, and regular reporting and performance analysis. Many of these elements are captured in the state trust manager's strategic plan, policies and rules, administrative procedures and directives, and/or an overall governance manual.

The benefits of documentation are:

- Mitigates risk
- Improves operational efficiency and effectiveness
- Distinguishes state trust manager's reputation
- Minimizes the risk of unexpected or unintended consequences
- Helps create reasonable stakeholder expectations for returns and volatility
- Drives compliance with applicable state statutes^{xii}

KEY CONCEPTS

- Prudent investor standard for state trust portfolio management:
 - Diversification
 - Broad investment authority
 - Portfolio approach to decision making
- Portfolio management governance should strive for fiduciary excellence, which includes creating and regularly updating a set of standard governance documents

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STATE TRUST PORTFOLIO MANAGEMENT

Many WSLCA member states have instituted portfolio management principles. Utah, Oklahoma, Idaho, Colorado and others recently made changes to their portfolio asset allocation, portfolio goals, and/or portfolio governance. The following describes Colorado's School Trust portfolio management (refer to Exhibit 4 for the Colorado School Trust portfolio summary).

State Trust Portfolio Governance

The Colorado School Trust mandate is to produce reasonable and consistent income over time and to protect and enhance asset value for Public School beneficiaries. As established by the State Constitution, the Colorado School Trust is governed by the State Board of Land Commissioners (State Land Board) and the State Treasurer.

Over the past five years, the State Land Board has instituted a number of new governance practices, including creating and updating a strategic plan every two years, rewriting all board policies and procedures to make them consistent, and instituting annual business planning to target leasing opportunities.

In 2016, the Colorado Legislature passed SB16-35 that does the following:

- Establishes the Public School Permanent Fund Investment Committee to oversee the School Trust's financial asset investments
- Allows financial assets to be invested in equities as determined on the Investment Committee's investment policy
- Allows the Investment Committee to hire third-party financial advisors

State Trust Asset Allocation

In 2013, the Colorado State Land Board estimated its School Trust value at around \$4 billion using standard valuation methodologies and assumptions. Colorado's asset current allocation is entirely focused on inflation (inflation hedge and deflation hedge) investments. As noted above, the Legislature passed SB16-35 that allows the School Trust to be invested in equities (growth and diversifiers).

State Trust Portfolio Goals

The Colorado School Trust portfolio makes an annual dividend (cash) return of about 4.5 percent and about 2.5 percent is distributed to beneficiaries through the Colorado School Finance Act and the Colorado BEST program (which funds K-12 capital construction projects). As of July 2016, neither the State Land Board nor the Investment Committee has adopted explicit portfolio goals. However, State Land Board Policy 400-003 outlines the State Land Board's property acquisition and disposition priorities.

State Trust Portfolio Tools

The Colorado State Land Board has a number of constitutional and statutory tools that help it to manage its portfolio. The Constitution allows the State Land Board to sell assets and reinvest the sale proceeds within two years. Other than a prohibition on selling mineral rights, the State Land Board is not limited on type and location of property sales and acquisitions. The State Land Board purchases land, minerals, water, agricultural

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operations (e.g. buildings, wells, pivots, etc.) and commercial assets. The Constitution also authorizes the Legislature to fund State Land Board operations out of its trust revenue.

Colorado Statute grants the State Land Board additional authority including the ability to invest up to \$5 million of trust revenue each year to maintain and improve School Trust assets, to sell property directly to local governments, to hire third party commercial property managers and to issue certificate of purchase (bonds) to acquire and/or construct commercial buildings. As noted above, statute also now allows the Public School Permanent Fund to be invested in equities well as bonds, and to hire investment advisors.

KEY CONCEPTS

- Many WSLCA member states have instituted state trust portfolio management principles
- Colorado has focused on portfolio management principles for many years and has both Constitutional and statutory authorizations that allow Colorado to more effectively meet its mandates
- Although each state will be different, the state trust manager should find ways to institute portfolio management principles; these principles help state trust managers meet their fiduciary responsibility and provide value-added benefit for many generations of beneficiaries

ⁱ Total Return was formulated in the 1950s as part of modern investment management by Harry Max Markowitz (born August 24, 1927), an American economist, and a recipient of the 1989 John von Neumann Theory Prize and the 1990 Nobel Memorial Prize in Economic Sciences.

ⁱⁱ 2014 NACUBO-Commonfund Study of Endowments, 2013 Council on Foundations-Commonfund Study of Investments for Private Foundations, Trinity Wall Street reports, Kamehameha Schools reports, Acharya and Dimson, *Endowment Asset Management* (Oxford, 2007).

ⁱⁱⁱ <http://en.wikipedia.org/wiki/Deflation>

^{iv} Acharyna and Dimson, *Endowment Asset Management* (Oxford 2007)

^v http://www.cre.org/memberdata/pdfs/commercial_re_inflation_36_3.pdf

^{vi} Commonfund Institute "principles of Investment Management For Long-Term Funds" (2014)

^{vii} Tobin, James. "What is Permanent Endowment Income?" (1974)

^{viii} Commonfund Institute "Principles of Investment Management For Long-Term Funds" (2014)

^{ix} Commonfund Institute "Principles of Investment Management For Long-Term Funds" (2014)

^x Alley J. Proctor *More Than Just Money: Practical and Provocative Steps to Nonprofit Success* (Create Space Independent Publishing Platform 2010)

^{xi} Center for Fiduciary Excellence (CEFEX) <https://www.cefex.org/>

^{xii} BOK Financial Corporation "Establishing a Sound Fiduciary Process" (2015)

EXHIBIT 4: COLORADO SCHOOL TRUST PORTFOLIO

CATEGORY

SCHOOL TRUST As of July 2015

PORTFOLIO MANDATE

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PORTFOLIO GOVERNANCE

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PORTFOLIO ALLOCATION

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PORTFOLIO GOALS

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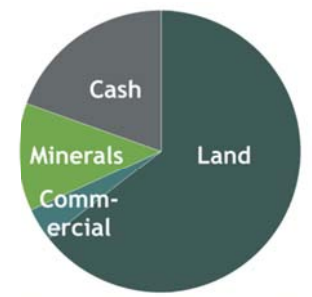
PORTFOLIO TOOLS

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Public K-12 Schools
Reasonable and Consistent Income Over Time
Protect and Enhance Natural Value

- Colorado State Board of Land Commissioners
- Commissioners (5) – Appointed [Constitutional 1996]
 - Real Property Assets
- Colorado Treasurer’s Office
- Public School Permanent Fund Investment Board (5) [Statutory 2016]
 - Treasurer (1) – Elected [Constitutional 1996]
 - Financial (Cash) Assets

- Real Property Assets
- 2.6 surface acres
 - 3.8 mineral acres
 - 14 commercial properties
 - 30% severed mineral estate
 - 70% land on eastern plains (east of I-25)
 - 87% mineral revenue (mostly oil and gas)



- Financial Assets
- 100% fixed Income (Current)
 - Authority to invest in equities [Statutory 2016]

	Growth	Inflation Hedge	Deflation Hedge	Diversifier
Total Revenue	0	\$190 million	\$23 million	0
% revenue	0%	90%	10%	0%
Total Value	0	\$3.4 Billion	\$0.8 billion	0
% value	0%	81%	19%	0%

	Goal	Actual (1 year)	Actual (10 year)
Dividend	n/a	4.9%	n/a
Appreciation	n/a	n/a	n/a
Withdrawal	n/a	2.6%	n/a

- Asset Transactions
- Land for Land Exchanges [Constitutional 1996]
 - Non-Simultaneous Exchanges – Reinvestment in 2 years [Constitutional 1996]
 - COP (bond) Acquisitions – Up to \$50 million [Statutory 2014]
 - Direct Sales to Local Governments – 2 transactions per year [Statutory 2009]
- Asset Investments
- Investment and Development Fund – up to \$5 million per year for maintaining and improving asset value and income. [Statutory 2005]
 - Annual Operating Budget – \$5 million from trust revenues [Constitutional 1996]