

# A SOUND FISCAL FUTURE:

**Recommendations for the Sustainable Utilization  
and Management of Alaska's Financial Assets**

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Financial Opportunities Working Group

October 26, 2015





THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

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October 26, 2015

Dear Governor Walker:

Thanks to the wisdom of past political leaders that established a robust system to save a portion of State petroleum revenues, investment returns on Alaska's financial assets will in the future exceed taxes and royalties generated from natural resource development. Thoughtful management of that wealth, in conjunction with sound fiscal decisions today, provides an opportunity to address the current budget crisis while ensuring future generations share equitably in the resource wealth enjoyed by the past generation of Alaskans.

In that vein, and at your charge, I have led the Financial Opportunities Working Group within the executive branch. It is comprised of a diverse group of representatives from the Governor's Office, Department of Revenue, and Department of Law. The group was assembled to examine the State of Alaska's financial assets and how those assets are currently managed. The goal was twofold.

First was to analyze how and to what magnitude Alaska's sovereign wealth could help stabilize the State's budget. In particular we reviewed the State's approximately \$100 billion in financial assets to explore options and best practices to orient a portion of that wealth for sustainable contribution to the General Fund for ongoing appropriation.

The second was to identify if there are opportunities to better manage our substantial financial assets for enhanced long-term investment returns.

The analysis and recommendations laid out in this report identify initial steps to be taken in furtherance of the group's stated goals. Although those steps are a meaningful start, additional work over the coming months, years and even decades will be required to optimize utilization and management of our sovereign wealth.

A handwritten signature in black ink, appearing to read "Craig Richards".

Craig W. Richards  
Attorney General

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## CHAPTER 1 | EXECUTIVE SUMMARY

To address the significant budget shortfalls created by declining oil revenues, the State is reducing spending and considering options to increase revenues from new taxes and resource development projects. However, these measures are unlikely to alone close the current deficit at current oil prices. And because Alaska's oil production is expected to decline, even significantly higher oil prices will only delay—not solve—the State's long-term budget problems.

Alaskans are fortunate that the last generation of political leaders saved oil revenues for future use by establishing the Permanent Fund and the Constitutional Budget Reserve. In addition, the Legislature saved substantial monies through funding of other State accounts and capitalization of public corporations. Through thoughtful and disciplined utilization of these savings, in combination with budget reductions and additional revenue measures, Alaska can close the fiscal gap and move toward a sustainable state budget.

Alaskans should not, however, focus solely on short-term budget needs. Any new financial plan should also consider how to use financial assets to maintain and create wealth for the State and its residents in the future. Alaska was an innovator in recognizing the importance of saving resource wealth for future generations when it created the Permanent Fund. We can build on that innovation to secure our future.

Although our heavy reliance on a single commodity sets us apart from other states, it is hardly unique among foreign oil economies. Other oil dependent sovereigns have adopted

strategies to preserve an equitable distribution of resource wealth across generations. Alaska should consider the strategies that underlie these sovereign wealth funds.

The experience of other resource dependent economies also illustrates the negative impact of over-reliance on highly volatile state revenues. Government spending that trends up and down with volatile commodity based revenues constrains the broader economy. Basing a portion of the state budget on stable payments from Alaska's sovereign wealth can smooth economic cycles and temper fiscal uncertainty that periodically chills investment.

Accordingly, among other items, this report evaluates directing a portion of Alaska's sovereign wealth to the General Fund to mitigate the impact of oil price volatility on year-to-year spending. This policy shift would aim to provide a sustainable budget while preserving oil wealth for future generations. Successful implementation of a sovereign wealth fund model would stabilize the state budget by contributing revenues for current expenditure while preserving oil wealth at an even level between generations.

Based upon a review of Alaska's experience, the publicly available strategies of other governments, and relevant literature on the subject, this model would:

- (1) protect the value of Alaska's sovereign wealth against inflation;

- (2) grow Alaska's sovereign wealth at a rate above inflation that accounts for future decline in oil production;
- (3) take a formulaic approach to drawing from sovereign wealth for current year expenditures that ensures the wealth growth goals implicit in (1) and (2) are met;
- (4) delink current year budget expenditures from oil price volatility; and
- (5) manage our sovereign wealth assets to maximize long-term returns.

History and policy suggest that the State should also continue to provide an annual dividend to Alaskans.

Alaska already manages its wealth consistent with the first two principles. For example, the Legislature has historically inflation-proofed the Permanent Fund by annually appropriating a sum of money from the Earnings Reserve Account back to the principal. The State has

also grown the real value of the Permanent Fund in other ways such as:

- (i) periodically, particularly in the 1980s, appropriating additional funds to the principal of the Permanent Fund over several decades;
- (ii) depositing at least 25% of all mineral royalty and lease payments to the principal of Permanent Fund, as required by the Constitution (with additional deposits added by statute so that the fund typically receives 30-32%); and
- (iii) by custom, the Legislature has largely retained funds in the Earnings Reserve Account not necessary for inflation-proofing and the annual Permanent Fund dividend.

Through such measures and sound investment practices, the inflation adjusted real value of the Permanent Fund has grown an average of 3.2% annually since 1977.

### **State Investment Returns Relative to Petroleum Revenues**

For decades state petroleum revenues were many times greater than investment revenues. However, from the late 1990s, the amount of revenue from investment and the amount from petroleum slowly converged and, in 1998, the State generated more revenue from investments than it did from petroleum. This convergence was interrupted by the substantial increase in the value of oil in the mid-2000s, but in 2015, with a quarter of peak production and oil prices well under \$100 per barrel, the State once again generated more revenue from investments than it did from oil.

With Alaska's petroleum production decreasing and Alaska's financial assets significantly greater than they were in 1998, the trend of greater investment revenues will most likely continue. By creating a portfolio of financial assets that can generate sufficient investment income to indefinitely fund the state budget, the State can decouple public spending from highly volatile commodity prices.

However, although certain funds have been managed towards a real growth target, the state has not managed real growth of its sovereign wealth to a specific target. If the State diverts sovereign wealth to the General Fund for current year expenditures, it will need to establish real growth targets.

Chapter 2 examines different formulaic endowment model options that would direct sovereign wealth to the General Fund for appropriation each year to support a sustainable budget. Without adopting strategies to improve long-term returns, initial Department of Revenue modeling suggests that the State can spend approximately \$2.4 billion (2015 dollars) of its sovereign wealth each year in perpetuity and maintain its value on an inflation adjusted basis. That amount includes dividend payouts, which in 2016 are projected to be \$1.4 billion. Accordingly, if the status quo dividend payout model is maintained, approximately \$1 billion can initially be directed to the General Fund for non-dividend appropriation in a manner that preserves the purchasing power of current Permanent Fund assets but allows for only minimal real growth.

This report also considers the effect of the annual payment of a Permanent Fund dividend on the State's investment returns under the current dividend payout formulation. The dividend has three noted impacts. First, the dividend payout by definition reduces the potential growth of Alaska's sovereign wealth assets. Alaska has paid out approximately \$23.0 billion in dividends since the program began in 1982. The Department of Revenue calculates that, if no dividends had been paid, the Permanent Fund would be \$130.2 billion or

nearly 250% more than the current fund. Second, the anticipated growth in dividend amount under the current payout model – above an amount that provides an allowance for inflation – would reduce the real growth potential of our sovereign wealth assets. Growing dividend payouts at a rate greater than inflation substantially diminishes the ability of the State to experience strong growth in the real value of the Permanent Fund. Third, under the current framework, the collective value of all sovereign wealth assets grows faster if the State spends the Earnings Reserve Account before the Constitutional Budget Reserve or other state savings (assuming equal investment returns), because investment earnings in non-Permanent Fund accounts are not part of the annual dividend payout.

As described in Chapter 3, one potential benefit of managing state assets under a sovereign wealth fund model, rather than a simple endowment model, would be to delink current year budget expenditures from oil price volatility. In the sovereign wealth fund model, all or an increased portion of current oil revenues would be deposited into a sovereign wealth fund rather than in the General Fund as in an endowment model. Under an endowment model, government is funded by both the (relatively stable) annual endowment payment in addition to the (volatile) current resource income. For this reason, state spending will invariably rise when oil prices are high and must be reduced when oil prices are low. But under a sovereign wealth fund model, annual General Fund revenues are based on formulaic payments from sovereign wealth assets. Thus the budget would be stabilized by large, consistent payments from sovereign wealth assets each year, with those assets

growing more rapidly in years of high oil prices. Under a sovereign wealth fund model, the volatility inherent in oil prices shifts from the General Fund to sovereign wealth funds, which are better situated to manage it.

Since the sovereign wealth fund model adds annual resource revenue to the body of invested assets, it produces a higher sustainable draw on an annual basis. Department of Revenue modeling predicts that sovereign wealth assets totaling \$56 billion can sustain an annual draw around \$3.4 billion without degrading the real value of the total assets. This amount includes funds for the annual dividend: projected to be \$1.4 billion in 2016. Alternatively, reserving half of annual royalty payments for the dividend, around \$700 million, the sovereign wealth framework can sustain an annual transfer of \$3.1 billion to the General Fund.

Finally, Alaska should adopt investment practices that increase the earnings of its assets over time. As a consequence of compound interest, a higher rate of earnings for state assets will result in more rapid growth and more funds available for annual appropriations to the General Fund.

The following suggestions can help increase long-term returns:

- Establish an advisory board with a mission to take a statewide perspective on investment strategies, orchestrate collaboration among funds, balance the current fund-by-fund investment policies, and bring new ideas and expertise to bear for the State.
- Centralize funds through pooling, inter-fund lending, or coordination to make more funds available for longer-term investment strategies. A larger pool of funds will allow a broader scope of investments strategies, absorb more volatility and risk, and free more assets to be invested longer for greater returns. In any fund coordination strategy, care must be taken to accommodate legal restrictions specific to each fund.
- Optimize the state's capital structure through the use of more debt. Debt creates risk, but it also can produce greater returns. Like other tools for adding to an asset base, investing borrowed money at higher rates of return than the cost of capital provides access to additional compound interest gains. Over the long term, the likelihood of enhanced returns exceeds the risk associated with well-managed levels of debt, particularly with appropriate risk mitigation strategies and adjustment mechanisms.
- Use debt to earn, not to spend. When pairing a plan to add debt to the capital structure with a percent of market value (POMV) or other endowment approach, the debt must not be included in a POMV calculation. To be sustainable, the POMV should apply to the net value of state assets, less debt.
- Give state agencies that manage funds additional resources to contribute to their success. Outside management is often more expensive than managing

assets in-house. Even small savings via internal management are meaningful. Additionally, many investment strategies that have potential to produce greater earnings are labor intensive. The work will pay for itself, but the agencies need the staff and resources to implement more sophisticated strategies.

- Use other state assets to maximize returns in our sovereign wealth funds. There are several billion dollars being held by miscellaneous state funds managed by the Treasury Division or held by Alaska's public corporations that could be utilized in an endowment model. This could lead to better returns over time and income available for general appropriation rather than for a dedicated use.

## CHAPTER 2 | ENDOWMENT MODEL SPENDING

The endowment model is a strategy for the deliberate and controlled use of financial assets, principal and income, to fund budget needs.

An endowment is a portfolio of financial assets supporting an institution, such as a university or non-profit organization. Examples include many major universities and foundations. In most cases an endowment fund is not wholly expendable by the institution on a current basis. Endowments balance providing support today with investing to provide support over the long-term.

This Chapter compares different endowment model options for Alaska including initial observations as to their relative advantages and disadvantages and the amount of withdrawal from investment assets that are sustainable over time. The next Chapter discusses an endowment model and what is termed a sovereign wealth fund model, the primary difference being whether oil price volatility is placed in the General Fund or our sovereign wealth assets.

### 2.1 Funds Available

The State has a variety of funds available for use in an endowment model including the Permanent Fund and its Earnings Reserve Account, the Constitutional Budget Reserve, the Statutory Budget Reserve, and a portion of the GeFONSI (short for the "General Fund and Other Non-Segregated Investments"). Other state assets could legally be included into an endowment base such as the Power Cost

Equalization Fund, the Higher Education Fund, and the Illinois Creek Mine Reclamation Fund.

Many trust funds, including Alaska's large public employee pension trusts, would likely have to be excluded from an endowment model because of legal restrictions. However, if the State wanted to maximize the total amount of funds used in an endowment type model, each individual trust fund and assets held by our public corporations should be analyzed for inclusion. The Appendix to this paper discusses the larger pools of Alaska's assets as a starting point for that discussion.

### 2.2 Endowment Models Examined

Three different endowment models for Alaska were analyzed.

Percentage of market value ("POMV"): Under this approach a fixed percentage of the Permanent Fund's value (both the principal, which is sometimes referred to in Alaska as the "corpus," and Earnings Reserves Account averaged over a five year period) is transferred to the General Fund each year. Volatility in investment returns are reflected in monies available for the dividend and appropriation to the General Fund. This approach has associated uncertainty for government funding because a volatile investment environment will result in unpredictable payment levels to the General Fund. However, using a five year average reduces that volatility relative to an approach based only on the current value of the Permanent Fund each year. POMV also militates against the risks of insolvency, because payments will decline if the value of investments drops. In general, a POMV approach would require a constitutional amendment to provide stability in years when

there are insufficient funds in the Earnings Reserve Account for the full amount of the draw. This is because funds cannot be drawn from the Permanent Fund corpus without amending the constitution.

Statutory POMV: This approach employs the same POMV calculation but the money is drawn only from the Permanent Fund Earnings Reserve Account. The advantage to this endowment model is the POMV approach could be implemented without constitutional amendment. The downside is that if the Earnings Reserve Account runs short of funds, the system would break down because the Permanent Fund corpus is inaccessible under the current constitutional arrangement. Therefore, a statutory POMV model based solely on Permanent Fund Earnings Reserves payouts should be considered a short-term and not long-term endowment model unless the current budget deficit is substantially reduced.

Fixed dollar amount: This option draws a set amount—for example, \$2 billion annually—from savings for transfer to the General Fund. The amount of the draw is not based on the value of the endowment but is instead set based on either predicted budget needs or upon a reasoned determination as to how much can be drawn from savings while still meeting fund growth goals. A flat drawdown policy eliminates volatility in spending and provides a check on overspending. The amount would include the annual allocation for the Permanent Fund dividend, and might or might not be adjusted for inflation over time. The advantage to this approach relative to POMV is that monies to the General Fund are steady and predictable, and the state budget

is not dependent on investment returns. The downside of a fixed dollar approach is an increased chance of insolvency of the Permanent Fund if there is a sustained period of bad market returns. On the other hand, if market returns are high over time and annual draws are not adjusted upward, the Fund would experience more real growth under the fixed dollar model.

### **2.3 Modeling Analysis**

The endowment options were analyzed using two different Department of Revenue financial models, one developed by the Tax Division's Economic Research Group (ERG) and the other by the Treasury Division. The ERG model is deterministic and was developed for this project to model various endowment options.

The ERG base case analysis assumed a 6.7% return on investments, which are current expected returns, with no return enhancement through alternative investment strategies such as increased levels of debt. Each scenario excluded the Constitutional Budget Reserve under the assumption those funds would be needed to close short-term budget needs. Other non-Permanent Fund assets were also excluded from the base case. Obviously if a strategy was adopted to direct more assets into the pool used to generate a steady endowment stream, the level of the annual endowment draw could increase. Several scenarios examined hypothetical enhanced return strategies to demonstrate that, over time, increased investment returns increase the potential for level annual withdrawals or real growth in base assets.

Sustainable POMV percentage: In the first modeling scenario a sustainable POMV

percentage was targeted to determine how much could be generated from sovereign assets today while inflation proofing but not providing for real growth. Assuming a 6.7% return on investments, a sustainable percentage is approximately 4.5% of the market value of the Permanent Fund and the Earnings Reserve Account. This target would result in appropriations of about \$2.4 billion yearly in real terms. This payout includes both funds available for Permanent Fund dividend payouts and to the General Fund. The amount available for appropriation would be lowest in the first few years as the funds 5-year average is still accounting for its recent growth that exceeded 6.7%. This 4.5% would generate consistent revenues in real terms of approximately \$2.0 billion in 2016, and \$2.4 billion annual from 2019 through 2045. This assumes steady annual earnings, of course; actual annual POMV draws would vary slightly based on actual performance but effectively the real value of the fund would remain flat after 2019.

Given the present value of assets and returns assumed available for this endowment model, Alaska cannot solve its current fiscal dilemma without a combination of either long-term reduction in spending or different revenue sources. Additionally, the amount available to the General Fund is offset by amounts paid for the Permanent Fund dividend. In 2016 that amount is projected to be \$1.4 billion. Under the present dividend payout formula dividend payouts will also increase, because the 50% of earnings formulation grows in real terms over time and increasingly consumes the total \$2.4 billion available for General Fund and dividend appropriations. For instance, of the \$2.4 billion in 2016 dollars available for payout

in 2035, \$1.7 billion would go to dividends under the current dividend payout formula.

POMV percentage generating \$3 billion yearly in real terms: Under the POMV model, if the State were to target a POMV that could generate \$3 billion yearly it would need to set its POMV payout to 6% of market value. This approach would generate \$3 billion in real terms starting in 2019 but the value of the payouts would quickly be eroded through the loss of the Permanent Fund's principal. In short a POMV of 6% is not sustainable and would lead to a 35% decline in the real value of the Permanent Fund over a 30-year time horizon. This analysis shows that Alaska does not currently have the fund size necessary within the Permanent Fund corpus and Earnings Reserve to meet a \$3 billion inflation adjusted payout target through a POMV endowment methodology.

## **2.4 Other Observations**

In addition to the above discussion about the different modeled endowment payouts, several other observations are worth noting from the ERG and Treasury Division analysis.

*Draws today reduce funds available for future draws:* If the State directs additional funds out of its sovereign wealth assets the growth rate of those assets will decrease, thus decreasing the amount that can be directed to the General Fund in the future. Roughly speaking, for every \$0.5 billion per year added to the drawdown out of the Permanent Fund in real terms (whether to the General Fund or for dividends), in thirty years the Permanent Fund will be about \$55 billion less in nominal value and \$28 billion less in real value. Thus, spending that extra real \$500 million annually now results in

not being able to spend \$670 million annually in real dollars in 30 years.

*Debt increases the expected return, but also increases the chance of insolvency:* Adding debt to the investment portfolio increases the expected growth of sovereign wealth assets over time (or alternatively increases the total draws that can be made today on a sustainable basis). However, the more debt held in a portfolio the higher the risk of insolvency. This outcome should be expected, and highlights the importance of both adopting a capital structure with debt but doing so in a measured manner consistent with acceptable levels of risk tolerance.

*POMV calculations should apply to the net, not gross, value of assets:* Initial POMV model runs that included additional debt resulted in declining fund values. That was because the POMV model runs were based on the total value of the Permanent Fund, both equity and debt. The State should ensure that any POMV model is designed to make payouts on only the net value of assets after debt, and not the gross value, if it includes leverage.

*The current dividend payout formula has unintended consequences:* The statutory dividend payout formulation is currently half of the net realized earnings (on a five year average). Paying a dividend based on a percentage of recognized earnings has several unintended, but important, consequences.

- The 50% earnings dividend formulation has modeling consequences that are similar to a 50% capital gains tax. For instance, long-term returns are

enhanced if realized gains are delayed. Selling assets and recognizing gains sooner results in the dividend payout occurring sooner, thus preventing the amount paid out from growing over time. Practically, the Permanent Fund can recognize gains sooner to pay more in dividends, or it can delay them to grow the Fund at a faster rate. The Permanent Fund does not currently make investment decisions based on the impact to the dividend. However, the Fund could consider including performance standards for its investment managers that recognize this impact just as sophisticated investors analyze returns after federal and state income taxes.

- If the goal is to grow Alaska's sovereign wealth, then the State should spend the Earnings Reserve Account before other accounts such as the Constitutional Budget Reserve. This is because half of all earnings in the Earnings Reserve Account are paid toward dividends. Moving the Earnings Reserve Account into another reserve account such as the Constitutional Budget Reserve or Statutory Budget Reserve, assuming equal levels of returns across accounts would result in approximately an additional \$230 million a year available for either General Fund expenditure or fund growth assuming the current \$7 billion value (although it would take five years to recognize the full savings given that dividend payouts are based on a five-year look back). The corollary, of course, is that any such transfer or

change in management strategy would reduce the annual dividend payout.

- The present dividend formulation makes use of certain types of leverage in the Permanent Fund undesirable. If returns on investment of cash raised through debt are used in dividend calculations, that would largely offset the returns expected from the leverage itself. This could be addressed by collateralized borrowing where debt is tied directly to the asset (e.g., real estate), so realized gains are only on a net basis. The Permanent Fund might also directly own special purpose vehicles—like an investment fund—that hold both the debt and underlying investment to avoid the effect.
- The unintended consequences of the current dividend payout formulation suggest the State should look at possible changes to the formula. For example, a fixed dividend on a real or nominal basis or a payout based on current State resource revenue would not create the above-mentioned impacts.

## CHAPTER 3 | SOVEREIGN WEALTH MODEL

An endowment model approach helps ensure that spending from Alaska's sovereign wealth does not exceed a sustainable amount; however, it does not address the broader and longer-term challenges resulting from reliance on volatile petroleum revenues.

### 3.1 Should oil price volatility reside in our sovereign wealth fund rather than the General Fund?

A "sovereign wealth fund" model is one way to handle negative consequences of oil revenue volatility to the state budget.

Under what this paper calls a sovereign wealth fund model, all or most oil revenues are deposited directly into the sovereign wealth fund, and revenues available for State expenditure are taken out of the fund based upon a formulaic approach that is not dependent on the price of oil.

In Alaska, a sovereign wealth fund model might involve: (a) all or a portion of oil tax and royalty revenues are deposited into the Permanent Fund; and (b) the Permanent Fund makes a large annual endowment payment to General Fund either at a fixed level (e.g., \$3.3 billion) or on a POMV basis.

Traditionally Alaska has thought in terms of an "endowment model." This type of endowment, like POMV, makes withdrawals from the Permanent Fund formulaically based upon characteristics that are independent of other revenues, and the State layers endowment payouts to the General Fund onto annual taxes and royalties on oil.

However oil taxes and royalties are driven by volatile oil prices. As demonstrated in recent years, commodity prices can change dramatically within short periods. For instance, there has been an over 50% oil price drop experienced between 2014 and 2016.

This volatility makes standard endowment models problematic. In a high oil price environment, such as 2006 to 2014, endowment funds will flow to the General Fund even when oil revenues are high and there are large budget surpluses. If the State is not disciplined, spending will increase rather than surpluses being re-appropriated to savings. Thus the endowment model can exacerbate a future financial crisis if the endowment payments are not coupled with a sustainable expenditure level and a system where the State has the discipline to deposit surpluses.

Under a sovereign wealth fund approach, the consequence of oil price fluctuations is transferred from the General Fund and into the sovereign wealth fund, which can better manage volatility.

This would be a fundamental structural change in state saving and revenue, but, if well-managed, would have the advantage of providing steady levels of state spending regardless of oil price. This in turn should lead to a smoothing of economic cycles in the State, such as mitigation of the economic consequence of low-oil price periods experienced by the State in 1986 and potentially facing the State in the next few years.

Initial estimates would require sovereign wealth assets of well over \$100 billion to generate

sufficient revenues to fully fund the state budget and allow for dividends at the current rate. Prior to reaching that level of sovereign wealth savings, however, the State could still engage in a partial or staged strategy. As an example, the most volatile oil tax or royalty revenues could be placed into the Permanent Fund in exchange for an increased annual draw to the General Fund and a reduction in inflation proofing to Principal out of fund earnings.

### **Oil Price Volatility and Capital Spending**

An example on how management of oil price volatility and state spending practices have potentially harmed Alaska's economy may be shown in historical practice of spending on capital projects. Capital project for the most part have not been debt-financed but paid for out of cash from the General Fund. In high oil price years, capital spending tends to be large and risks superheating the economy. But when oil prices are low, and the economy is contracting, capital spending—as the primary source of the State's discretionary spending—is drastically reduced, thus further worsening the economy. Cyclical capital spending is common problem for “boom and bust” oil economies.

### **3.2 Should dividends be based on investment earnings, petroleum revenues, or be stable?**

The discussed distinction between an endowment and sovereign wealth fund model is whether oil price volatility is placed in the General Fund or the sovereign wealth fund. It is similarly appropriate to ask, as a matter of policy, what type of volatility annual permanent fund dividends should reflect?

Three potential options were considered for dividend payouts. The current formulation bases dividends on an average of 5 years of earnings of the Permanent Fund. In this approach the amount paid out in dividends reflects activity in the portfolio including macroeconomic volatility in global investment markets outside of Alaska. A rationale for this method is to create a constituency among the Alaskan people that are vested in the Permanent Fund's growth as an incentive to keep it from being spent.

The next option is to base dividends on oil revenues going to the State. This would result in Alaskan's receiving higher dividends in periods of high production and high prices, and lower dividends when production and oil prices are lower. Non-oil revenues from other resource extraction such as mining could also be included. From the perspective of shifting commodity price volatility out of the General Fund and the state budget, this is an attractive model. It is also more consistent with a philosophy that individual Alaskans should share in proportion to the wealth generated by industry and state from resource development.

Finally the dividend could be structured as a flat nominal or real payment (e.g., \$1,000 annually). Doing so keeps all the volatility of investment returns in the Permanent Fund and does not change the status quo where most of the volatility of State oil revenues resides in the General Fund (except for annual royalty contributions made to the Permanent Fund). Stable dividends are potentially more beneficial to the economy as a whole, because stability reduces the chance of dividends being treated by citizens as discretionary windfall spending. However, a flat

dividend model puts commodity production and risk on either the sovereign wealth assets or the General Fund, which could be considered less desirable state policy.

State policy makers and the people of Alaska should have a discussion about how much of the State's exposure to oil price volatility should reside in each of: (a) our sovereign wealth assets, (b) dividend payouts to Alaskans, and (c) the General Fund and state budget. Likewise, the State should consider where we want to house the volatility of our investment returns (e.g., in the fund value and dividend payouts as with the current system, or in the General Fund as with POMV).

### 3.3 Modeling Analysis

Department of Revenue's economic modeling illustrates the potential of this approach to resolve today's fiscal challenge, prevent similar fiscal challenges in the future, and provide for the next generation of Alaskans.

Under the sovereign wealth fund model, a portion of Alaska's financial assets can sustainably provide between \$3.0 and \$3.4 billion (real) to the General Fund.

For purposes of the modeling, "sustainable" means maintaining the median real value of the sovereign wealth assets through 2040 (the end of the 30 year modeling horizon). This sustainability metric assumes a 2.25% rate of inflation and a 6.73% return on investment.

This analysis started with a \$56 billion endowment base, which would include several elements of Alaska's sovereign wealth – the Permanent Fund, the Earnings Reserve Account, and a portion of the Constitutional Budget Reserve (CBR).

If all sovereign wealth contributions come from the Earnings Reserve Account, its balance must be sufficiently high to sustain a few years of low investment return. A total balance between \$10 and \$13 billion appears to work well. The Treasury Division anticipates that the CBR will have a balance of about \$7.0 to \$7.5 billion at the beginning of the next fiscal year. In addition to realized earnings from this fiscal year, a transfer of at least \$3 billion from the CBR to the Earnings Reserve Account will result in a starting balance between \$10 and \$13 billion.

Applying the sovereign wealth fund model framework, the analysis deposited all petroleum production tax and petroleum royalty revenue into the sovereign wealth assets. This scenario can sustainably produce \$3.4 billion (real) on an annual basis. Of this amount, the existing formula would distribute approximately \$1.4 billion of this amount in dividends this year. Thus, in the first year, the sovereign wealth contribution to the General Fund would be \$2.0 billion. Limiting the total dividend payout to \$700 million, approximately \$1000 per Alaskan resident, would allow a \$2.7 billion contribution to the General Fund.

Alternatively, reserving half of the annual royalty revenue for the dividend, around \$700 million, the sovereign wealth framework can sustainably produce \$3.1 billion for annual appropriations. The system produces more for annual appropriations largely because the modeling includes a declining production forecast. However, under this framework, the dividend can grow with new development and production.

Working from this royalty dividend scenario, adding a 4% floor to the production tax

increases the sustainable contribution from \$3.1 billion to \$3.25 billion. While the hard floor only has a direct impact in low oil price environments, in the modeling the floor also produces this higher median outcome.

Finally, waiting until 2020 to begin inflation adjustment to the contributions allows the contribution to start at \$3.35 billion.

The sovereign wealth fund model is a long-term strategy. Spending and saving rules must be established at the start to avoid ad hoc decisions. However, some modeling assumptions may not materialize over the years. Therefore, the model also requires a plan to periodically adjust the spending allowance.

### **Comparative Sovereign Wealth Fund Studies**

A recently published three-part study from the Belfer Center and the Center for International Development at Harvard Kennedy School examines the leading governance structures and practices of the world's leading sovereign wealth funds, and provides an analytical framework and number of practical tools for assessing policy and institutional aspects to consider for reform.

The first report, "Sovereign investor models: Institutions and policies for managing sovereign wealth," defines and categorizes the types of sovereign investors and provides a detailed discussion of critical issues related to their macroeconomic policy frameworks and governance arrangements.

The second report, "A comparative study of sovereign investor models: Sovereign fund profiles," profiles the history, policies and institutional arrangements of 15 leading global sovereign funds and institutions.

The third report, "A Stable and Efficient Fiscal Framework for Saudi Arabia: The Role of Sovereign Funds in Decoupling Spending from Oil Revenue and Creating a Permanent Source of Income," is extremely pertinent as it provides a road map for transitioning from oil to investment revenue.

These documents are available at [http://belfercenter.ksg.harvard.edu/publication/25300/institutions\\_and\\_policies\\_for\\_managing\\_sovereign\\_wealth.html](http://belfercenter.ksg.harvard.edu/publication/25300/institutions_and_policies_for_managing_sovereign_wealth.html)

## CHAPTER 4 | CENTRAL MANAGEMENT AUTHORITY

Alaska's financial assets have grown significantly, currently amounting to approximately \$100 billion. Assets this significant should be invested to enable the State to minimize overall risks and maximize value. This can be best accomplished with a unified and holistic approach to managing and investing these assets.

This report recommends that the State create an advisory board with several responsibilities, including evaluating the State's investment practices to ensure that its assets are structured to maximize long-term investment return, identifying investment and coordination opportunities for state funds, researching and evaluating the practices of other investment entities—including other sovereign wealth funds—and making recommendations to state investment fund managers.

### 4.1 Current Management Framework

As discussed in the Appendix to this paper, the Treasury Division and the Permanent Fund Corporation manage most of the State's investable assets. The Treasury Division manages some non-pension funds and the State's pension funds under the direction of the Alaska Retirement Management Board. The Permanent Fund Corporation manages the Permanent Fund and a portion of the Mental Health Trust Fund under the direction of the Alaska Mental Health Trust Authority. Each management authority invests according to its own general investment philosophy or strategy, guided by any statutory or other legal requirements and focusing exclusively on the funds under its authority. This approach gives

each agency the flexibility to make management decisions that closely adhere to the investment objectives of each fund.

But this approach bypasses opportunities for greater investment returns that would be available from a more coordinated strategy. The present budget crisis illustrates the limitations inherent in the current approach. By foregoing potential opportunities to realize increased returns through collective asset management, the State may miss a chance to extend the timeline for spending down the principal of all funds. A more coordinated approach would mitigate that problem. Under current law, opportunities to coordinate are limited because the fiduciary of each fund must make investment decisions in the best interest of that fund. But existing law allows some room for arrangements of mutual benefit, including pooling risk in a way that is consistent with fiduciary obligations. Additionally, a mechanism to spur more communication among fund managers might permit better evaluation of statewide opportunities and risks, ultimately to the benefit of all funds.

### 4.2 Statewide Management Perspective

In light of these considerations, this report considers four alternative options for central management, in addition to the status quo: (1) reassigning investment authority to one entity; (2) creating a new umbrella investment management authority to direct existing state investment agencies; (3) creating an advisory board; and (4) assigning the duties of an advisory board to the Department of Revenue.

### **4.2.1 Single Authority**

Alaska could assign investment authority for all funds to a single entity—the Treasury Division, the Permanent Fund Corporation, or a newly created entity. This would require a change in existing law.

The existing structure has the advantage of diversification, but at the expense of some lost opportunities. One entity with overall authority for investing all state assets could coordinate strategies to a degree not now possible. In most situations, fiduciary duty would still require investment decisions that serve the best interests of each respective fund and its beneficiaries. Further, this approach would require that existing management institutions be significantly restructured. The benefits of a single managing entity do not initially appear to warrant a wholesale restructuring.

### **4.2.2 Umbrella Authority**

Alternatively, the State could create a new agency with authority to direct the existing entities. Under this model, the Treasury Division and the Permanent Fund Corporation would continue to be responsible for their respective funds, but one statewide agency would have authority either to direct their investment strategies or to direct cooperation, collaboration, and information sharing between them.

Creating an umbrella organization with some authority over state investment management practices would reap benefits for the State. It would allow a more centralized approach to investing—with better inter-agency communication—while maintaining the decision-making diversification of investment professionals at the different agencies.

On the other hand, another layer of bureaucracy could hinder rather than enhance the State's ability to make decisions and adjust to changes in the marketplace, if state investment strategy must be considered, reviewed, and adopted by multiple agencies. In addition, this option would require a change in law. Consequently, this report recommends that this option not be adopted without further analysis.

### **4.2.3 Advisory Board**

A third possibility would be to create an advisory board with assigned responsibilities to periodically assess the State's investment returns and practices and provide non-binding recommendations for change. An advisory board composed of individuals with expert knowledge could assess investment performance from a state-wide perspective and with a focus on a state-wide strategy. The board could advise on global and regional perspectives on geopolitical, economic, and market developments and on a range of investment-related matters, including global investment trends, emerging asset classes, new growth opportunities, Alaska's risk policies, and risk management. The Governor already has authority to create an advisory board by administrative order, so no statutory change is required for this option.

An advisory board has the obvious disadvantage of limited power; it could only advise and make non-binding recommendations. Additionally, an advisory board would not centralize management of state investments. It could only encourage, not mandate, greater coordination of investments across state funds.

Although it would take a statewide perspective, this board's function would be somewhat similar to that of the investment advisory council that currently provides advice to the Alaska Retirement Management Board. That council is composed of professors and consultants who are appointed by the Board. The members of the council attend board meetings and meet with investment managers.

#### **4.2.4 Department of Revenue Staff**

The final option would be to assign the advisory board functions described above to an existing state agency such as the Department of Revenue. The Department of Revenue already has experienced and knowledgeable individuals who could perform many of these review functions. This advantage is countered, however, by the fact that existing staff cannot introduce new perspectives and would continue to report directly to the Commissioner of Revenue. The State thus would not benefit from the viewpoints of non-state officials with varied investment knowledge and experience, drawn from different backgrounds. For this reason, this approach is not recommended.

#### **4.3 Recommendation:**

##### **Investment Management Board**

On balance, the best approach in the near term appears to be for the Governor to create an investment advisory board—the Investment Management Board—consisting of three state officials and four outside experts. The

recommended state members are the Commissioner of the Department of Revenue or his designee; the chair of the Alaska Permanent Fund Corporation or his designee; and the chair of the Alaska Retirement Management Board or his designee.

To ensure that the Investment Management Board can fulfill its purpose of providing valuable investment advice to the State, the four public members should be investment experts who satisfy criteria that indicate investment acumen—possibly including substantial experience and expertise in financial investments and management of portfolios for public or corporate investment funds or related academic experience. A possible mechanism for establishing new public members of the board might be for the sitting members to nominate individuals to the vacancies for the Governor's approval.

The Investment Management Board should have a specific charge, be rules-based, apolitical, meet either quarterly or semiannually, and have staff support from the Governor's Office or the Department of Revenue.

To provide accountability, each fund might be required to respond to the board's recommendations within 90 days. This would ensure a level of accountability even though the board does not have authority to direct investment practices and decisions.

## CHAPTER 5 | COORDINATED FUND MANAGEMENT

Coordinating cash flow and investment practices among state funds can help maximize Alaska's earnings. The State's investment officers have already developed several mechanisms to improve efficiency in fund management, including treasury pools, investment pools, and cash flow studies. By expanding those mechanisms and systematically looking for additional opportunities Alaska can construct a statewide strategy that will produce greater returns on its financial assets.

### 5.1 Current Management Practices

Even as funds have been managed with an individualized focus, state asset managers have often devised and employed coordination tools for greater administrative efficiencies or greater returns. Under current management practices, specific funds are invested based on their individualized risk and return profile. The Treasury Division uses investment pools to minimize risks, maximize diversification, and maximize returns for the individual funds, which must be kept separate for reasons that include a statutory fiduciary duty, legislative expectations, and some fund-specific legal restrictions.

The GeFONSI fund consists of the General Fund and over 100 other individual funds. The Treasury Division calculates and allocates the monthly investment earnings among the GeFONSI participants according to a three-part distribution framework:

- For type 1 participants, income is compounded daily and credited monthly by the Treasury Division;
- For type 2 participants, income is calculated, but only actually credited to the account if the Legislature appropriates the funds; and
- For type 3 participants, interest is computed and separately accounted for, but is deposited in the General Fund.

The distribution framework is established through a series of fund-by-fund Memoranda of Understanding between the Department of Revenue and the Department of Administration. This system allows the Treasury Division to fulfill the fiduciary duty on a fund-by-fund basis while significantly reducing the administrative burden of managing numerous small funds. This strategy also allows smaller funds to diversify—thus reducing risk—in a way that may not be possible on an individualized basis.

Cash flow studies have identified opportunities for fund collaboration within the GeFONSI. For example, a 1998 study revealed that the aggregate cash flow of several GeFONSI participants would permit the Fund as a whole to be invested with a higher risk tolerance and expected return. The GeFONSI had been, and still is, allocated entirely to the short- and intermediate-term fixed income investment pools. But the Treasury Division changed the benchmark for the intermediate-term fixed income pool from the Lehman 1-3 year government index to the Merrill Lynch 1-5 year government fixed income index. The Treasury

Division anticipated that this change would result in a gain of 0.40% for all GeFONSI participants. Coordination enabled the funds to collectively withstand greater risk and volatility.

The seven investment pools among which all non-pension state funds are allocated add another layer of efficiency. These pools improve efficiency by (1) reducing the amount of cash needed on hand for the State's daily operations; (2) reducing the administrative burden of managing numerous small programs and funds; and (3) producing economies of scale that allow smaller funds access to investment options that are not otherwise practically available and that improve negotiating leverage on fees.

These tools have proven valuable.

## **5.2 Coordination Opportunities**

Particularly with some coordinated management, Alaska's financial asset base is large enough to explore different investment approaches. Reaching a critical mass in fund size with coordinated management should enable the State to pursue more diverse investment opportunities.

The scope of the coordinated fund management could be broad. Funds could share in specific pooled investment opportunities, with separate accounting by fund. Even when funds must be segregated due to constitutional or other legal constraints, a more coordinated fund management approach may identify opportunities to joint venture or co-invest in attractive projects.

Another promising approach would be to apply existing strategies more broadly. For example, a statewide cash flow study—or even a cash flow study for all funds managed by each respective state agency—could suggest potential efficiencies similar to those captured among the GeFONSI funds.

The ability to borrow and loan among funds, exercised in the Treasury Division's Cash Deficiency Operations plan, is one potential mechanism and model. For example, the CBRF Subaccount allows investment for higher yield returns of amounts that will not be needed within five years, but currently the entire balance of the Subaccount has been transferred to the CBR Main Fund in anticipation of the State's fiscal deficit in the near term. The CBR Main Account has produced 1 year returns of 0.84 %, 3 year returns of 0.82%, and 5 year returns of 1.66%. If the CBR could address budget shortfalls by borrowing from, say, the Permanent Fund, then the statutory requirement limiting the CBR to short-term lower-yield investments could be lifted, with the resulting benefit shared equitably between the CBR and the Permanent Fund. Or the CBR could lend money to the Permanent Fund to get the higher returns available to longer-term investments, and if funds were needed sooner than expected, the size and diversity of the Permanent Fund's portfolio would permit repayment by liquidating other assets than those selected with the longer time horizon in mind.

The State holds approximately \$60 billion of financial assets in the Permanent Fund, the Constitutional Budget Reserve, the Power Cost Equalization Endowment, the Illinois Creek Mine

Reclamation Fund, and the Alaska Higher Education Fund. These funds are not burdened by investment restrictions associated with funds specifically held for an enforceable purpose, such as trust funds and other pledged accounts. These other more restricted accounts hold approximately \$23 billion. The Alaska Housing Finance Corporation, Alaska Industrial Development and Export Authority, University of Alaska, and several other entities also hold significant financial assets. Even incremental increases in returns made possible through coordination can produce substantial benefits for the State.

The prudent investor rule encourages an investment strategy that focuses on the fund's portfolio, rather than on individual investments, and imposes the duty to diversify investments to reduce overall investment risks. The rule also imposes duties of loyalty and impartiality intended to protect the interests of the managed fund and its beneficiaries. The fund manager must preserve property and make it productive. The manager also must exercise reasonable care, skill, and caution. When reasonable, the fund manager should attempt to reduce costs. Coordinated fund management can assist fund managers in meeting each of these investment goals.

A coordinated fund management program must be implemented consistent with the purpose, rules, restrictions, and duties applicable to each fund. A fund's restrictions might impact its ability to participate in specific investment opportunities. Even so, those funds subject to restrictions—such as pension or trust funds—can perhaps play a supporting role in a statewide strategy. For example, some restricted funds draw on the General Fund

when they do not have adequate internal resources. Individualized strategies for filling those gaps through other mechanisms might free a portion of the General Fund for use in a coordinated strategy or more aggressive investment.

### **5.3 Recommendations:**

- Undertake a systematic, statewide evaluation of opportunities for coordination that may produce greater returns for the State, perhaps including a statewide cash flow study.
- Undertake a project to examine whether there are opportunities for funds with aggressive investment approaches to borrow from more conservatively managed funds.
- Assign fund advocates to ensure that coordination is consistent with any restrictions or needs of individual funds. The fund advocate could also be a contact for members of the public with an interest in a fund.
- Manage restricted funds—e.g., trusts—in a way that reduces or eliminates any burden on the General Fund.
- Ensure transparency when executing coordination strategies, particularly with respect to trusts.
- Identify statutory restrictions that inhibit optimal investment and spending strategies and consider potential legislative changes.

- Ensure that investment agencies have the resources to implement strategies that are more labor intensive but produce greater returns.

The proposed Investment Management Board could guide implementation of these recommendations. With its statewide perspective, this advisory board would have the appropriate focus. Particularly where coordination provides mutual benefit to multiple funds, this work could provide tremendous benefit to the State.

## CHAPTER 6 | OPTIMIZING ALASKA'S CAPITAL STRUCTURE

Just as a successful private business strives for an optimal capital structure, Alaska's investment portfolio should be managed for optimal debt and equity. While Alaska's current investment portfolio has some debt, the State may be able to safely deploy additional borrowing. Leveraging, in particular, is a promising strategy to enhance the return and revenue flow of the State's entire asset system. Initial modeling suggests that an increased level of debt has the potential to improve state financial returns and boost state wealth. An optimized capital structure can increase long-term investment revenue, decrease certain kinds of risk, and grow Alaska's savings.

### 6.1 Central Management Strategy

Any strategy for evaluating and optimizing the State's capital structure will require collaboration among the agencies managing state funds. The proposed Investment Management Board could provide a forum for coordination. Generally, a central management strategy would require: (1) identifying the debt in the State's existing portfolio, (2) identifying optimal debt for the State, (3) developing and orchestrating a system-wide strategy for achieving optimal debt, and (4) periodically re-evaluating the strategy and adjusting it as appropriate.

Debt already exists in the State's capital structure. Some debt is part of a deliberate leverage or risk mitigation strategy—e.g., Alaska Permanent Fund Corporation real estate and hedge fund investments. The State

often cannot directly control the debt or risk mitigation strategies that are associated with funds managed by third parties.

The optimal level of debt for the State will be influenced by several factors. The various forms of debt and risk mitigation strategies—including control, debt and asset pairing, repayment terms, structuring to limit recourse, and specialization—will alter the impact of debt on the overall portfolio. Thus, even as the capital structure strategy takes a statewide perspective, an asset-specific strategy is also important. This evaluation should also account for the optimal debt level for each fund or investment pool, given specific circumstances, as determined by either the Investment Management Board or individual fund managers.

This exercise will be challenging, in part because valuing alternative uses of cash by non-private entities such as the State is difficult. Other important components of the analysis include the way capital markets will evaluate risk, the perspectives of credit rating agencies and bond underwriters, and the price of debt. Evaluating market tolerance for the use of leverage by peer institutions—other sovereign wealth and public pension funds—should also be a priority. Translating the success of other funds into a strategy for Alaska will require considerable technical expertise, but would be a valuable exercise for refining the optimization formula for state asset management.

Capital structure optimization cannot happen immediately. Identifying and purchasing appropriate assets takes time, as does borrowing large sums. In addition, a progressive process of build-up (or adjustment)

minimizes the risk of market timing similar to a dollar cost averaging strategy, and allows time for investment managers to place new funds raised from debt in the best investments.

## **6.2 Modeling Alaska's Capital Structure**

Initial modeling of the impact of debt on Alaska's financial future reveals that it has significant potential to benefit the State. The appropriate amount of debt will vary depending on implementation and available risk mitigation strategies. Additional study, careful implementation, and periodic re-evaluation must be part of the process.

While the modeling reinforces the principle that debt creates opportunity for gains, the success or failure of the strategy may turn on implementation. Market timing, interest rates, available assets, debt structure, risk and risk mitigation, and many other considerations will shape the exact implementation pathway.

The modeling also demonstrates that debt is a tool to earn, not to spend. When pairing a plan to deploy debt into the capital structure with a POMV or other endowment approach, the debt must not be included in the payout calculation. To be sustainable, for instance, a POMV payout should be calculated from the net value of our assets after debt.

## **6.3 Use of Debt to further state investment opportunities and support development of the State's economy.**

An appropriate use of debt can be an essential component of an overall investment strategy—a financially wise way to fund public projects in light of the relative cost of debt versus the investment potential of cash assets. Although the use of debt has important

limitations, the State can issue bonds and sometimes incur debt that does not create a legal liability for the State. Different options to increase the percentage of debt in our capital structure are worth exploring. Of course an increase in the use of debt to enhance investment returns is only possible if borrowing does not increase spending.

## Capital Structure Theory as Considered for Alaska.

Economic Research Group

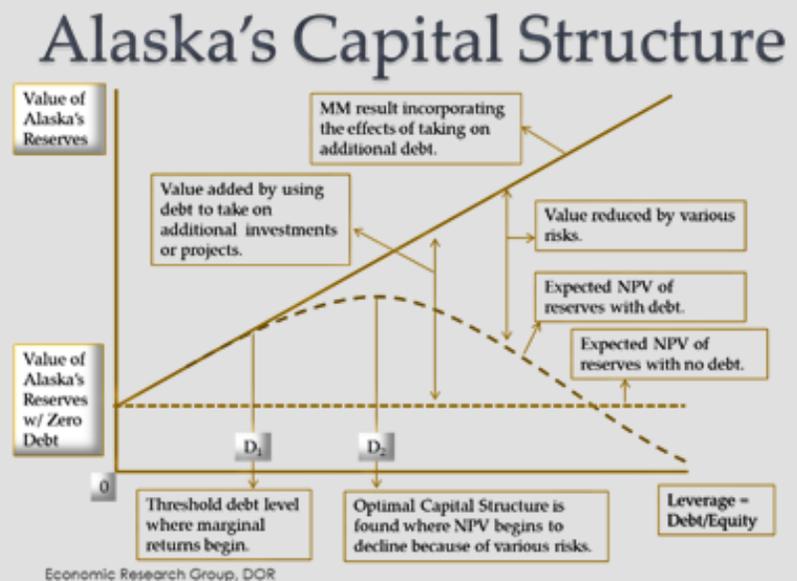
Capital structure theory provides a useful framework for illustrating the benefits and tradeoffs associated with debt. Broadly, capital structure is the proportion of equity and debt held by an entity. When the entity is a private company, debt is less expensive than common or preferred stock because interest on debt is tax deductible. Although Alaska is exempt from federal taxes, debt still provides opportunities for additional income in two ways. First, income may be generated by investing the borrowed money for returns that are greater than the interest on the debt. Second, debt enables existing assets to be invested longer, which allows compound interest to accrue. Conceptually, some level of debt is always appropriate, since having no debt carries the same amount of risk for less benefit.

Alaska is a sovereign government and exempt from federal taxes, so classic corporate capital structure theory is not directly applicable. Nonetheless, it is useful by analogy to think about how debt could benefit Alaska. An optimal debt-to-equity ratio maximizes value and minimizes the cost of capital, at a risk level appropriate to the institution. Consider this diagram of basic financial theory applied hypothetically to the State. The net present value (NPV) of reserves should increase with additional debt.

At a certain point—D1 in the diagram—the risk of insolvency causes a credit rating downgrade from AAA to AA2, increasing the cost of capital. The amount of leverage that warrants a credit rating change depends upon a number of variables, including both systemic and asset-specific risk mitigation strategies. However, even as a credit downgrade increases the cost of capital, opportunities may exist to increase risk-adjusted NPV.

The risk-adjusted NPV of assets continues to increase with additional debt until the risk outweighs the potential for additional income, causing the risk-adjusted NPV to decline. D2 is the maximum NPV achievable. Like D1, D2 is a range, largely dependent upon the investments paired with debt. Debt deployed in revenue generating investments should always be between D1 and D2.

Maintaining an optimal debt-to-equity ratio requires active monitoring and management. Over time, investment portfolios should grow through appreciation, inflation, and contributions to funds. During the same period of time debt should decrease, as a percentage of the capital structure, as it is paid down. The proportion of debt to equity should be managed to capture opportunities created by volatility, while remaining either just below D1 or between D1 and D2.



## **6.4 General obligation bonds for capital improvements**

Although the Alaska Constitution generally prohibits the State from directly incurring debt, it makes an exception for general obligation bonds for capital improvements and for housing loans for veterans, with voter approval.

The State can issue general obligation bonds that are tax exempt—interest paid by the State to bond holders is exempt from federal income taxes—and thus result in a low rate of interest for debt service for the State. In a time of reduced revenues, these bonds can provide a way to meet the State's capital improvement needs. General obligation bonds pledge the full faith and credit of the State, however, and thus create a general legal liability.

State governments and municipalities can issue tax-exempt debt under conditions provided in the Internal Revenue Code. The State can also issue general obligation bonds that are taxable, if the debt does not meet the tax exempt criteria of the federal tax laws. However, taxable bonds carry a higher interest rate than comparable tax exempt bonds. The higher cost of capital may in some circumstances be acceptable to the State.

Over the past 30 years, due to large surpluses from oil revenues, the State has mostly funded capital improvements with cash rather than general obligation bonds. But this practice has failed to optimize the State's capital structure. Funding capital improvements in cash rather than with tax-exempt financing has cost the State substantial sums in opportunity costs. Although the desire to avoid debt in cash-flush

times is understandable, it was unsophisticated asset management.

## **6.5 Revenue Bonds**

The State may authorize a public corporation to issue revenue bonds where the only security is the pledged revenues of the corporation. Thus, unlike general obligation bonds, revenue bonds do not create a general legal liability for the State; instead they are secured by the irrevocable pledge of defined revenues combined with carefully defined operational covenants of the issuing entity designed to ensure the future viability of the revenue source. Revenue bonds do not require voter approval.

As the Alaska Constitution prohibits the dedication of revenues, the State can issue revenue bonds only when permitted by Constitution, mandated by federal law, or for a dedication that existed before statehood. The State can, however, statutorily create public corporations that have the authority to pledge the resources of the corporation which may include a commitment of the State to annually appropriate funds.

The only currently authorized and utilized revenue bonds of the State are the Alaska International Airport System Bonds, the Clean Water and Drinking Water Funds Bonds, and the Sportfish Revenue Bonds. Revenue bonds also have been issued by public corporations such as the Alaska Industrial Development and Export Authority and the Alaska Housing Finance Corporation.

The State should explore whether increased use of revenue bonds by public enterprises or corporations, either on a tax-exempt or a

taxable basis, provides beneficial opportunities for low cost leverage.

## **6.6 Pension Obligation Bonds**

Pension obligation bonds do not create a general obligation of the State. Pension obligation bonds are a financing mechanism that permits public employers to borrow money at a taxable rate of interest and use the proceeds to reduce a pension plan's unfunded liability. Pension obligation bonds allow the State to borrow money up-front to more fully fund pensions, at a rate lower than the discount rate used for amortizing an unfunded pension liability. Pension bonds cannot be pledged and are not subject to liens.

Although the State has never issued pension obligation bonds, the Departments of Revenue and Administration are considering it under authority granted by the Legislature in 2008.

## **6.7 Debt or leverage as an investment tool for state funds**

### **6.7.1 Permanent Fund**

Leverage is an investment tool used by the Permanent Fund Corporation. Although the Permanent Fund is generally prohibited from borrowing money, it may borrow when making an investment of fund assets if the terms do not permit recourse to the corporation or the Fund. The Permanent Fund Board of Trustees has adopted regulations designating the types of investments eligible for the investment of fund assets, including the use of borrowing or leverage as part of an investment strategy.

The Permanent Fund currently uses leverage as part of its real estate investment strategy. Its

current real estate investment guidelines set a strategic target rate for leverage in private real estate investment at 35%. The Permanent Fund also invests in hedge funds and private equity funds that employ debt to enhance returns.

The Permanent Fund Board of Trustees has authority to change its investment strategy to make greater use of leverage in investments so long as it respects the statutory prohibition on borrowing that permits recourse to the Fund. Extensive analysis should be done at the statewide and fund levels to optimize the use of leverage within the Fund.

### **6.7.2 Alaska Retirement Management Board**

As a matter of policy, with few exceptions, the Alaska Retirement Management Board generally does not lever assets in its portfolio. It could do so as long as it did not permit recourse to the pension trust funds.

### **6.7.3 Department of Revenue**

The Department of Revenue has some ability to borrow as part of an investment strategy for general state funds. Consistent with the constitutional allowance for interim borrowing, the fiduciary of a state fund may "borrow assets on a short-term basis, under an agreement and for a fee, against the deposit of collateral consisting of other assets in order to accommodate temporary cash or investment needs."

## CHAPTER 7 | ALTERNATIVE ASSET STRATEGIES

Alaska can learn from the successful investment strategies of other sovereign wealth and public pension funds. While none exactly matches Alaska's unique circumstances, some approaches might be adapted to benefit the State. The Permanent Fund started comparing outside approaches and outcomes in its 2008 Board Papers, and it engages with other sovereign wealth funds through membership in the International Forum of Sovereign Wealth Funds. This Forum focuses on uniform sovereign wealth fund investment protocols designed to improve standing in the market as good investors—not subject to social or political pressures. This engagement is important and should be continued. But Alaska should also examine these other funds for successful approaches that it can adapt in a statewide strategy for Alaska and as part of ongoing re-evaluation.

One example of success worth further study is Temasek Holdings, Singapore's sovereign wealth fund. Temasek's revenue and investment strategies have been instrumental in transforming Singapore into one of the wealthiest, most innovative, and most business-friendly economies in the world—in just forty years. Norway, Kuwait, Abu Dhabi and Saudi Arabia are other examples that might be helpful, as they also have large sovereign funds and governmental revenues heavily dependent on oil.

Exploring the techniques these and various large domestic endowment funds use in investing may well hold valuable lessons for Alaska. But determining whether and how

Alaska can translate the success of other funds into similar outcomes will require thorough study matched with appropriate technical expertise. This report proposes that the Investment Management Board—an entity that would be tasked with formulating a statewide investment strategy—engage in this effort in collaboration with the Alaska entities managing the funds.

### 7.1 Compensation and Agency Resources

The “alternative asset strategies” discussed below are examples of management strategies that are more active than current practices. Active management strategies generally create opportunity for greater returns, but require more work, time, and expertise. Thus, successful implementation requires additional resources—including bigger operating budgets and more employees. If, as expected, active management strategies produce greater returns, increased resource allocation will be justified. An increase of only 0.1% annual return in the Permanent Fund would amount to over \$50 million in enhanced revenues each year. The magnitude of potential enhanced return strategies should be fully explored.

## **Singapore Lessons for Alaska: If Singapore can go from Poorest to Richest in One Generation using Only Financial Assets, Why Can't Alaska?**

*John Tichotsky, Chief Economist, Economic Research Group, Department of Revenue Tax Division*

Singapore, a small Asian country of five million citizens, may offer lessons for Alaska. Forty years ago Singapore was a fishing village with an average annual Gross Domestic Product of about \$400 per person. Today, it has the second highest Gross Domestic Product per person in the world, over \$60,000 per year.

The media and economic literature describe Singapore's economy as the "freest," "most innovative," "most competitive," and "most business-friendly" in the world, since it relies heavily on market economics to make it prosperous. At the same time, the government has a significant investment stake in its own economy—22% of the Gross Domestic Product.

Singapore has large financial reserves and one of the highest asset per capita ratios in the world. In the past, Singapore used its sovereign funds as a catalyst for economic development. As such, it was part or full owner of commercial enterprises that were not granted any competitive advantage over privately owned enterprises. Over the years, Singapore has taken an active role to transition from managing industries for economic development to managing assets for greater returns.

Singapore views its financial reserves as a strategic asset, a key defense in times of crisis. Singapore has divided its assets into three "buckets":

**Monetary Authority of Singapore** is the central bank of Singapore. Its primary mission is to help shape Singapore's vibrant financial industry by creating and implementing financial policies and ensuring a strong corporate governance framework and accounting standards. It also manages Singapore's exchange rate, foreign reserves, and liquidity in the banking sector. One critical element is the management of its foreign currency. In order to manage exchange rate risk, the Monetary Authority runs an estimated \$200 billion fund based on a basket of currencies. It does not disclose to the public information pertaining to the policy band, composition of the currency basket, weighting system, or money market operations.

**Government Investment Corporation** of Singapore is a professional fund management organization that manages government assets. Its objective is to achieve good long-term returns to preserve and enhance the international purchasing power of the reserves. It is estimated that this corporation manages well over \$150 billion.

**Temasek Holdings** is an investment company managed on commercial principles to create and deliver sustainable long-term value for its stakeholders. Temasek is an active, value-oriented equity investor that aims to maximize shareholder value over the long term. As such, the policies in place for the fund enable world class risk management techniques, excellent returns, and a AAA credit rating by Moody's and S&P. The size of assets under management is approximately \$150 billion.

While Alaska is not Singapore, it could learn from the "Singapore, Inc." management strategy. Alaska has significant financial assets, but lacks Singapore strategic approach. Like Singapore, Alaska should systematically evaluate the risks the State is facing with a broad goal for a sustainable future.

## 7.2 Platform Management

One suggestion that may be derived from the approach of other funds is the “platform” management structure, an approach often used by holding companies. A platform approach focuses on specific investment themes or industry sectors, areas where the investor has particular expertise, competitive advantage, or strategic interest. The platforms are not only areas of focus, but also separate entities through which investments are made (e.g., special purpose vehicles). Platforms are part of a single coordinated management strategy. Isolating the investment from other state funds and focusing expertise can reduce risk and limit recourse to the parent entity, while allowing investment officers to manage specific risk within a specialty module.

Temasek established several entities to focus on specific sectors, including a wholly-owned subsidiary holding stakes in financial institutions in emerging markets, a real estate company focused on Asia, and a global investment company. While the subsidiaries focus on specific areas, their specialists diversify by searching globally for investments, particularly those with growth opportunities. This management structure allows Temasek to concentrate expertise in targeted areas—which is essential to successfully engage in a wholesale investment strategy. The structure also isolates risk, including the unsystematic and idiosyncratic risk inherent in specialization, and limits recourse to Temasek.

Alaska might also benefit from this approach, and the State is well positioned to develop areas of specialization. The State has existing expertise that would provide an advantage in the energy sector, although its energy sector

strategy should look for companies with pricing power and competitive advantages—such as pipelines—to avoid exacerbating the State's exposure to volatile oil prices. Pharmaceutical companies involved in drug discovery may also be a good platform choice, because the State has experience with the Monte Carlo modeling used in that industry as well as in energy sector discovery. If this proposal were advanced, it would be a long-term strategy, since the State would need time to develop and refine expertise and to allow state investments to mature and create value.

## 7.3 Wholesale Approach

A wholesale strategy involves more direct and individualized investments, such as acquiring large-scale stakes through direct arrangements; IPO purchases and angel investing; purchasing of direct assets (i.e., intellectual properties, royalties, brands); direct lending; and private equity investment through in-house managers. Temasek is primarily a direct equity investor, with less than 10% of its portfolio managed by third parties.

Alaska's current portfolio includes primarily publicly traded equities and bonds. However, both the Treasury Division and the Permanent Fund have successfully pursued some wholesale investment opportunities, for example the Permanent Fund investment in Juno Therapeutics and the Alaska Retirement Management Board's investments in farmland. Additional resources would give state investment officers even more opportunities to research and discover wholesale investment opportunities.

A wholesale strategy requires specific expertise in the underlying business or industry. Managers

must have the technical skills and either specialized knowledge or the support of asset selection and management specialists. Not all wholesale investments will be successful. However, with consistency in strategy, enough purchases, and time to exercise expertise in the purchase and sale of assets, the strategy has the potential to produce greater returns than existing practices.

A wholesale approach does present challenges. Wholesale investments are less liquid and generally have a greater dispersion of outcomes. Focusing on particular industries may concentrate portfolio exposure in particular risk factors, exposing the fund to unsystematic and idiosyncratic risk. And because the wholesale strategy requires individual investment decisions, it may present a risk of politicizing asset management. Therefore, this approach would need to include mechanisms to protect the independence of investment decisions, and to mitigate specific risks. A wholesale strategy does not guarantee greater returns; rather, its success hinges on implementation.

## APPENDIX | ALASKA'S FINANCIAL ASSETS

This appendix discusses Alaska's financial assets as a starting point for two conversations: (1) which assets should be directed to an endowment model to generate current revenues for the state budget, and (2) which assets can be managed for enhanced returns.

Collectively, Alaska's financial assets exceed \$100 billion. They generally fall into four groups, defined by management authority:

- (1) The Alaska Permanent Fund Corporation manages the \$53 billion Permanent Fund and Earnings Reserve;
- (2) The Department of Revenue's Treasury Division manages \$27 billion of pension funds, under the direction of the Alaska Retirement Management Board;
- (3) The Treasury Division, under the direction of the Commissioner of Revenue, manages another \$19 billion of assets in non-pension state funds; and
- (4) Various quasi-independent state entities that hold about \$2 billion.

### A.1 Alaska Permanent Fund Corporation

The Legislature created the Permanent Fund Corporation as an independent public corporation to manage the Permanent Fund separately from other state funds, in part to insulate it from political influence. It is governed by a six-member Board of Trustees, which includes the Commissioner of Revenue and one other head of a principal department of state government. The Board establishes the investment policy for the fund, which currently includes as a long-term investment goal a 5%

real rate of return, with an expected standard deviation of 12%. The entire fund is managed as a single investment pool allocated among a range of assets, including private equity, bonds, infrastructure, hedge funds, and real estate.

The Board has been working over the last several years to bring more investments in-house, in both the public and private markets. This allows the Fund to maintain its diverse portfolio at a lower cost, increases internal control over investments, allows for direct stakes in private companies, and adds valuable professional jobs to Alaska's economy.

The Permanent Fund Corporation manages the Alaska Permanent Fund and may, with the approval of the Commissioner of Revenue and agreement with the responsible fiduciary, manage and invest other state funds. Pursuant to statutory authority the Permanent Fund Corporation also invests the cash portion of the Alaska Mental Health Trust Fund.

## **Alaska's Permanent Fund**

Prudhoe Bay, the largest oil field in North America, was discovered in the late 1960s. Before then, Alaska's tax base was small relative to its public needs and expenditures. But the Prudhoe Bay discovery meant substantial royalty and tax payments for the State from oil production.

In 1976, Alaskans amended the constitution to create a dedicated sovereign wealth fund to hold a portion of the royalty revenue—the Alaska Permanent Fund. Article 9, section 15 now states:

*At least 25 percent of all mineral lease rentals, royalties, royalty sales proceeds, federal mineral revenue-sharing payments and bonuses received by the state shall be placed in a permanent fund, the principal of which may only be used for income-producing investment.*

The referendum that created the Permanent Fund did not identify any specific purpose for the earnings or clearly define a management strategy for the fund. Early on, Alaskans chose to manage it as an investment fund rather than as an economic development fund. Thus, the Permanent Fund has few investments in Alaska or economic development projects. Several other public corporations—including the Alaska Industrial Development and Export Authority and the Alaska Housing and Finance Corporation—fill that niche.

Over the years, the Permanent Fund has transformed from a small fund with a relatively simple investment strategy to a unique sovereign wealth fund with a large (relative to population) diversified portfolio of assets managed to produce income at an acceptable level of risk.

In the 1980s, Alaska created a dividend program to share with its citizens the gains from its resource wealth. All Alaskans who meet the residency requirement receive this annual dividend. Each year, the dividend distributes half of the net realized earnings (based on a rolling five year average).

The Permanent Fund is divided into two parts, a “principal corpus” (\$46 billion) and the “earnings reserve” (\$7 billion). The corpus cannot be spent without a constitutional amendment. With a majority vote, the Legislature can appropriate funds from the Earnings Reserve Account.

While the Legislature may spend the entire Earnings Reserve Account for any public purpose, by custom, each year the State: (1) transfers a portion of the earnings to the corpus for inflation proofing; (2) distributes a portion of the realized earnings to residents in the dividend; and (3) leaves the remaining amount in the Account.

## A.2 Treasury Division: Pension Funds

The Alaska Retirement Management Board (ARMB) serves as the fiduciary of the State's retirement system assets: the State of Alaska Supplemental Annuity Plan, the deferred compensation program for state employees, and the retiree health care trusts. The Treasury Division invests the defined benefit plan funds at the direction of ARMB.

Pension plans consist of employer and employee contributions that are legally owned by the State, but that the State must—under federal and state law—use exclusively for the benefit of plan participants.

The ARMB consists of nine trustees, including the Commissioners of the Department of Administration and the Department of Revenue. The board is subject to the prudent investor rule and the statutory fiduciary duty to manage and invest these assets so that they are sufficient to meet the liabilities and pension

obligations of the systems, plan, program, and trusts.

The 14 ARMB funds are invested in a wide range of assets including equity, bonds and real estate. The asset allocations of the ARMB funds are achieved using a combination of investment pools, which include investment mandates of over 100 investment managers. Thirteen of these funds have the same FY2016 target asset allocation (only one, the Military Retirement Fund, has different allocations and thus different returns):

<b>ASSET CLASS</b>	<b>ALLOCATION</b>	<b>RANGE</b>
Broad Domestic Equity	26%	± 6%
Global Equity Ex-US	25%	± 4%
Private Equity	9%	± 5%
Real Assets	17%	± 8%
Absolute Return	5%	± 4%
Fixed Composite	12%	± 5%
Alternative Equity Strategies	3%	± 2%
Cash Equivalents	3%	± 3%

With this target asset allocation the ARMB projects a 5-year geometric return of 7.2 % with a standard deviation of 15.3%.

### **A.3 Treasury Division: State Funds**

The Commissioner of Revenue, through the Treasury Division, invests the “money in the state treasury above an amount sufficient to meet immediate expenditure.” The Commissioner must follow “the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the fund.” But the Commissioner also has considerable discretion to “perform all acts, not prohibited by this section, whether or not expressly authorized, that the fiduciary considers necessary or proper in administering the assets.”

Additional investment rules apply to trust funds, which consist of assets conditionally provided to the State by or on behalf of other entities. Trusts are legally owned by the State for the benefit of an entity or class of persons, usually for a specified purpose. Trust terms vary.

Bond proceed funds sometimes are also subject to other rules. The Internal Revenue Code restricts the ability of entities to arbitrage tax-exempt bonds. The arbitrage rules are complicated, but generally, any arbitrage earned on bond funds must be rebated to the United States Government. Bond resolutions or other documents may also incorporate rules or restrictions on how bond proceeds must be

invested. Certain state statutes also impose restrictions.

The Treasury Division invests these state funds in some combination of seven investment pools according to an asset allocation set in the “best interest of each fund,” considering statutes, fund purpose, risk tolerance, return objectives and cash flow needs. Of the seven investment pools, four are fixed-income investment pools and three are equity investment pools.

#### Alaska Constitutional Budget Reserve

In 1990, voters added Section 17 to Article IX of the Alaska Constitution, creating the Constitutional Budget Reserve Fund. After July 1, 1990, all money that the State receives in resolution of disputes over certain mineral-related income must be deposited in the Reserve Fund. The Legislature may, under certain conditions, appropriate money from the Reserve Fund to fund the operations of state government. In 2000, the Legislature created a subaccount within the Reserve Fund to allow funds that will not be needed for at least five years to be invested to yield higher returns. On April 1, 2015, based on the anticipated need for the assets within five years, the entire Subaccount balance was transferred to the Main Fund.

<b>NON-PENSION FUNDS MANAGED BY TREASURY Value and Historical Returns</b>	<b>Market Value 8/31/15</b>	<b>Returns as of 6/30/2015</b>		
		<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>
Constitutional Budget Reserve Fund	10,089,686,545	0.84	0.82	1.66
CBRF Subaccount	-	2.41	9.87	10.05
GeFONSI	4,250,088,690	0.45	0.44	0.91
Permanent Fund Dividend Holding Account	1,390,892,502	0.25	0.24	0.31
PCE Endowment Fund	930,314,303	3.50	12.88	12.24
Public School - Principal	557,411,325	2.78	7.75	9.14
AK Higher Education Investment	445,214,453	3.09		
RHIF LTC Insurance	385,728,286	2.81	6.77	9.035
EVOS Habitat Investment	114,354,199	4.23	12.17	12.37
Statutory Budget Reserve Fund	104,063,072	0.90		
EVOS Research Investment	101,207,725	4.26	12.21	12.38
2012 Transportation Bond Act BANs	75,080,184	0.30		
Int'l Airport Revenue Fund	60,662,517	0.83	0.58	1.22
2013-B GO Bonds	49,404,195	0.30		
AK Mental Health Trust Reserve	37,689,854	3.68	10.70	10.91
Public School - Income	18,572,977	0.30	0.27	0.34
AIA Series 2002 Reserve Account	15,238,840	0.30	0.27	0.34
Intl Arpt 2006 Non-AMT	14,763,807	0.30	0.27	0.34
RHIF Major Medical	14,694,469	0.30	0.27	0.34
AIA Series 2003 Reserve	9,766,986	0.30	0.27	0.34
International Airports 2010-C	8,668,538	0.30	0.27	
AIA Development	7,392,847	0.84	0.59	1.18
2008 Transportation Project Government Bonds	6,897,363	0.30	0.27	0.34
Intl Arpt 2006 Variable	5,745,972	0.30	0.27	0.34
International Airports 2010-D	2,808,271	0.30	0.27	
Investment Loss Trust Fund	2,739,637	0.30	0.27	0.34
Illinois Creek Mine Reclamation	921,947	0.84	3.06	3.22
Int'l Airport Repair & Replacement Fund	500,083	0.30	0.27	0.34
2013-A GO Bonds	348,308	0.30		
2010-C GO Bonds	180,695	0.30	0.27	
2010-A GO Bonds	11,995	0.30	0.27	

	Short-Term Fixed Income	Intermediate-Termed Fixed Income	Broad Fixed Income	Domestic Equity	International Equity
Constitutional Budget Reserve Fund	70%	0%	23%	5%	2%
Constitutional Budget Reserve Fund Subaccount	0%	0%	39%	40%	21%
Statutory Budget Reserve	68%	32%	0%	0%	0%
GeFONSI	68%	32%	0%	0%	0%
Power Cost Equalization Endowment Fund	0%	0%	29%	47%	24%
Exxon Valdez Oil Spill Fund	0%	0%	30%	47%	23%
Exxon Valdez Oil Spill Habitat Investment Fund	0%	0%	30%	47%	23%
Retiree Health Insurance	100%	0%	0%	0%	0%
Retiree Long Term Care Insurance Fund	0%	0%	62%	25%	13%
Public Schools Trust Fund Principal Assets	0%	0%	45%	36%	19%
Public Schools Trust Fund Income Assets	100%	0%	0%	0%	0%
Alaska Higher Education Trust	0%	0%	29%	47%	24%
Illinois Creek Mine Reclamation Trust Fund	0%	0%	29%	47%	24%
International Airport Revenue	70%	0%	23%	5%	2%
International Airport Repair & Replacement	100%	0%	0%	0%	0%

### General Fund and Other Non-segregated Investments (GeFONSI)

Created in 1959, the General Fund and Other Non-segregated Investments (GeFONSI) Fund, holds all assets managed by the Treasury Division not separately managed. GeFONSI is comprised of the General Fund proper (operating account) as well as other funds associated with various state programs (Governmental Accounting Standards Board funds).

The Treasury Division invests the all of the GeFONSI funds together and then allocates the monthly investment earnings to some but not all of the GeFONSI fund participants, based on legislative appropriation or statute. The remainder is deposited in the General Fund.

Under the Cash Deficiency Operation Plan, certain funds in the GeFONSI may be called upon to cover a cash shortfall in the General Fund proper if the Statutory Budget Reserve and the Constitutional Budget Reserve Fund are insufficient, or if appropriations are not granted.

For 14 of the past 22 years, the General Fund has needed funds from the Constitutional Budget Reserve Fund or Statutory Budget Reserve Trust to meet daily disbursement obligations. Even in balanced budget years, the difference between receipts and disbursements causes periodic cash deficiencies and annual budget gaps. The State has resolved this problem by developing methods of identifying potential deficiencies

and drawing upon the reserves to compensate for them either through existing appropriations or by borrowing.

The Cash Deficiency Operations Plan calls for cash to be moved from these reserves to the General Fund when it is projected to fall below \$400 million for 5 days. The Legislature may appropriate from the Constitutional Budget Reserve Fund with a three-fourths vote of the members of each house for any public purpose. If the amount available for appropriation in a fiscal year is less than the amount appropriated in the previous year, the difference may be appropriated by a majority vote. Under the Constitution, until an appropriation made from the Constitutional Budget Reserve Fund is repaid, amounts available for appropriation that remain in the General Fund at the end of each fiscal year are transferred to the Constitutional Budget Reserve Fund.

#### Statutory Budget Reserve Fund

The Statutory Budget Reserve Fund was established in 1991 to provide General Fund liquidity. This is a savings fund that the Legislature can appropriate by simple majority. It is managed in a separate account with its own asset allocation. The Statutory Budget Reserve Fund consists of appropriations to the fund of excess money received by the State. Though the fund is presently exhausted, it has held billions in high oil price years.

#### Power Cost Equalization Fund

In 2000, the Legislature created the Power Cost Equalization Fund to provide long-term affordable energy to regions that would otherwise be high cost areas. A \$100 million transfer from the Constitutional Budget Reserve

Fund provided initial funding for the Power Cost Equalization Fund. Since then, this fund has received support from the General Fund and other sources.

This fund must be invested “in a manner likely to achieve at least a four percent nominal return over a five-year period to meet the objectives of the power cost equalization and rural electric capitalization fund.” Previously, the mandate was to invest to achieve at least a seven percent nominal return over time.

#### Exxon Valdez Oil Spill Fund

The Exxon Valdez Oil Spill Fund was created in 2000 to invest the restitution from the 1989 Exxon Valdez oil tanker spill. In 2002, this fund was split into three separate accounts: the Research Investment, the Habitat Investment, and the Koniag Investment (closed in 2014). The Exxon Valdez Oil Spill Fund Trustee Council has investment authority.

#### Retiree Health Insurance Fund

The Retiree Health Insurance Fund is a self-funded health insurance program for retired employees. It currently consists of two separate accounts, Major Medical Insurance and Long Term Care Insurance. The Treasury Division categorizes the risk tolerance and time horizons of the two funds differently.

#### Public School Trust Fund

The Public School Trust Fund is a non-expendable trust fund created in 1915. Its income is dedicated to the benefit of Alaska's public schools. The Public School Advisory Board—consisting of the Commissioner of Education, three members of the Board of Education, and the Commissioner of Revenue—determines the fund's long-term

investment plans. By statute, the fund is separated into two distinct accounts, principal and income. The principal account must be preserved in real terms, but the income account is open for appropriation based upon the market value of the trust.

#### Alaska Higher Education Investment Fund

The Alaska Higher Education Investment Fund was created in 2012 with a \$400 million deposit from receipts of the Alaska Housing Capital Corporation. The fund was established to provide grants and scholarships to qualified postsecondary institutions on behalf of students. The Legislature may appropriate up to 7% of the fund's market value balance each year.

In 2013, the Alaska Higher Education Investment Fund was moved from the General Fund into a segregated fund and given an asset allocation to generate earnings sufficient to meet the required 7% annual appropriation. The Treasury Division manages the investment policy of this fund.

#### A.4 Other Management Authorities

Several public corporations and quasi-independent state entities, established to carry out certain public policies, manage and invest funds. The Alaska Housing Finance Corporation, the Alaska Industrial Development and Export Authority,

the Alaska Municipal Bond Bank Authority, and the Alaska Student Loan Corporation pay, or may elect to pay, some portion of their income as an annual dividend to the State. Some or all of these corporations' assets could potentially be redirected toward better management or put to work for the State in an endowment model.

<b>PUBLIC ENTITIES REVENUE AND DIVIDENDS, FY 2014 (\$ million)</b>	<b>Revenue</b>	<b>Expenditures</b>	<b>Net Income</b>	<b>Dividend</b>	<b>State Contribution</b>
Alaska Aerospace Corporation	11.5	15.3	(3.8)	0.0	8.5
Alaska Energy Authority	265.9	156.3	225.3	0.0	115.9
Alaska Gasline Development Corporation	427.2	73.9	353.3	0.0	424.8
Alaska Housing Finance Corporation	308.0	313.0	(5)	10.9	0.0
Alaska Industrial Development and Export Authority	66.3	29.7	105.8	20.7	89.9
Alaska Mental Health Trust Authority	82.8	24.6	58.2	0.0	0.0
Alaska Municipal Bond Bank Authority	35.6	36.5	(0.8)	0.0	0.0
Alaska Railroad Corporation	184.1	169.8	14.3	0.0	0.0
Alaska Seafood Marketing Institute	22.6	20.1	2.5	0.0	8.2
Alaska Student Loan Corporation	26.5	23.0	3.5	0.0	0.0
University of Alaska	815.8	814.9	0.9	0.0	385.9

<b>PUBLIC ENTITIES FINANCIAL FACTS, FY 2014 (\$ million)</b>	<b>Total Assets</b>	<b>Assets Less Liabilities Book Value</b>	<b>FY2013 Operating Budget</b>	<b>FY2014 Operating Budget</b>	<b>Total Positions</b>
Alaska Aerospace Corporation	84.8	77.5	10.5	10.6	49
Alaska Energy Authority	1561.4	1406.2	50.1	51.7	See AIDEA
Alaska Gasline Development Corporation	392.8	370.5	3.6	11.9	38
Alaska Housing Finance Corporation	4055.0	1510.0	90.8	95.4	353
Alaska Industrial Development and Export Authority	1487.5	1270.8	14.1	15.9	106
Alaska Mental Health Trust Authority	610.5	585.6	3.2	3.4	16
Alaska Municipal Bond Bank Authority	993.8	56.6	0.8	0.8	1
Alaska Railroad Corporation	1038.1	278.2	129.1	133.3	625
Alaska Seafood Marketing Institute	21.7	17.9	24.8	29.6	19
Alaska Student Loan Corporation	468.7	219.6	12.9	13.3	91
University of Alaska	1934.5	1631.2	925.8	914.2	4949

### Alaska Aerospace Corporation

The Alaska Aerospace Corporation operates and maintains a commercial spaceport in Kodiak, Alaska and provides commercial rocket vehicle launch support services. It promotes space-related business, research, education, and economic growth in Alaska.

The State supports the Alaska Aerospace Corporation through funding for capital and operating expenses. In FY 2014, the State contributed \$8.5 million to maintain operations. The Corporation does not pay a dividend or return capital to the State.

### Alaska Energy Authority

The Alaska Energy Authority was established in 1976 to finance and operate power projects. It provides loans to utilities, communities, and individuals to pay for the purchase or upgrade of equipment. Additionally, the agency administers the Power Cost Equalization program, subsidizing rural electric costs with the Power Cost Equalization Endowment. Under contractual agreements, The Authority owns, operates, and maintains state-owned power projects, such as the Bradley Lake Hydroelectric Project and the Alaska Intertie. It also administers rural energy programs.

The Authority receives federal and state money to provide technical advice and assistance in energy planning, emergency response management, energy infrastructure construction, and conservation in rural Alaska. As a result of legislatively mandated reorganizations, capital has moved into and out of the corporation. The Authority does not pay a dividend or return capital to the State on a regular basis.

### Alaska Gasline Development Corporation

The Legislature established the Alaska Gasline Development Corporation in 2010, and it is now an independent, public corporation of the State of Alaska with several charges: developing North Slope natural gas for the maximum benefit of Alaskans; advancing a pipeline to deliver gas in-state at the lowest possible cost; developing other transportation mechanisms for delivering gas or non-oil hydrocarbons in-state; and assisting the Departments of Revenue and Natural Resources in maximizing the value of Alaska's gas.

The Gasline Development Corporation is currently pursuing two options for delivery of North Slope natural gas to Alaskans: the Alaska Stand Alone Pipeline project and the Alaska Liquefied Natural Gas (AKLNG) project. It is responsible for two funds from which it finances its operations and activities for both of these projects.

The In-State Natural Gas Pipeline Fund was established in 2013 to fund the planning, financing, development, acquisition, maintenance, construction, and operation of the Stand Alone Pipeline project. Alaska initially appropriated approximately \$420 million to this fund. All but a small working balance was appropriated to other purposes for the FY2016 budget.

The Alaska Liquefied Natural Gas Project Fund was established in 2014 to fund state expenditures associated with the AKLNG project and the State's equity participation in that venture. The Gasline Development Corporation is authorized to acquire a 25% ownership interest in the project on the State's

behalf, including development of infrastructure and services related to transportation, liquefaction, marine terminals, marketing and commercial support. The fund has been capitalized with appropriations totaling \$69.8 million.

#### Alaska Housing Finance Corporation

The Alaska Housing Finance Corporation exists to ensure that Alaskans—especially those of low to moderate income and those in remote or underdeveloped areas of the State—have adequate housing at reasonable cost. In addition, it administers federally and state-funded multi-residential, senior, and low-income housing, and residential energy and home weatherization programs.

Using proceeds from the sale of bonds backed by its corporate assets, the Alaska Housing Finance Corporation purchases home mortgages from Alaska banks. Income from payments on these mortgages repays bond holders and supplements the Corporation's income, thereby enabling it to pay an annual dividend or return of capital to the State in some years. In recent years, the Legislature has also authorized the Corporation to finance the construction of schools, University of Alaska housing, and other capital projects identified by the Legislature. It also managed the Alaska Gasline Development Corporation as a subsidiary until 2013, when it became an independent entity.

The Legislature appropriated to the Corporation \$739.9 million in cash and \$292.5 million in mortgages held by the General Fund between 1976 and 1984. Payments on mortgages, including additional mortgages purchased with cash, have helped build the its

asset base and allow it to return some capital to the State each year. In 1993, the Corporation received an additional \$27.7 million in cash and \$9.3 million in equity when the Legislature merged it with the Alaska State Housing Authority.

In 2003, the Legislature added statutory language to modify and incorporate a transfer plan between the Corporation and the State. This legislation calls for annual transfers that do not exceed the lesser of 75% of adjusted change in net assets for the fiscal year two years prior to the current fiscal year or \$103 million less debt service on certain State Capital Project Bonds, less any legislative appropriation of the Corporation's unrestricted, unencumbered funds other than appropriations of its operating budget. Since 1991, it has paid nearly \$2 billion in dividends to the State, including \$10.9 million in FY 2014.

#### Alaska Industrial Development and Export Authority

The Alaska Industrial Development and Export Authority provides financing to advance economic growth and job opportunities in Alaska. The Authority's financing tools include loan participations, direct loans, credit enhancements, revenue bond issuance, and equity investments in projects. The Authority makes financing available for industrial, commercial, and other business enterprises in Alaska. It generates income from interest on its loans, investments, leases, and operations of its properties.

Between 1981 and 1991, the State of Alaska transferred loan portfolios worth \$297.1 million and \$69.2 million in cash to the Authority. Since then, it has sustained itself without further state

assistance while also paying annual dividends to the State.

As defined by statute, the Authority must make available to the State each year not less than 25% and not more than 50% of its audited "net income" (as defined in statute) for the "base year." The "base year" is the fiscal year ending two years prior to the end of the fiscal year in which the dividend payment is made to the State. In no case may the dividend exceed the base year unrestricted audited net income. The actual transfer of the dividend requires a legislative appropriation that is a line item subject to gubernatorial veto. Since 1997, the Authority has paid over \$355 million in dividends to the state treasury, including \$20.7 million in FY 2014.

#### Alaska Mental Health Trust Authority

The Alaska Mental Health Trust Authority is a public corporation of the State within the Department of Revenue. It carries out the State's obligations under the Mental Health Enabling Act of 1956 to ensure an integrated, comprehensive mental health program. It is a perpetual trust originally capitalized with one million acres of land to be managed to generate income for mental health services in Alaska.

During the course of class action litigation, the Alaska Supreme Court concluded the State breached its fiduciary duty while managing Trust land. A 1994 settlement created the Alaska Mental Health Trust Authority and established a seven-member board of trustees to oversee it. The settlement recapitalized the Mental Health Trust with \$200 million and one million acres of land, consisting of original trust land as well as replacement lands.

Under the terms of the settlement and state statute, the Alaska Permanent Fund Corporation manages the cash principal. The Department of Natural Resources manages the land assets and a portfolio of directly owned real estate investments. The Trust Authority operates similar to a private foundation to administer, protect, and enhance the Mental Health Trust. The Trust Authority provides leadership in advocacy, planning, implementing, and funding Alaska's comprehensive integrated mental health program and coordinating with state agencies on programs and services to help improve the lives of Trust beneficiaries.

#### Alaska Municipal Bond Bank Authority

The Bond Bank loans money to Alaska municipalities for capital improvement projects. Limited State of Alaska credit support, a cross-collateralized pooled reserve fund structure, and its resulting high credit rating enable it to sell bonds at lower interest rates than the municipalities could obtain on their own. The Bond Bank earns interest on the money it holds both in bond reserves and other reserves and, by statute, must return a dividend to the State when net revenues exceed operational expenses.

Between 1976 and 1986, the Legislature appropriated \$18.6 million to the Bond Bank to be used in funding bond issue reserves for operating costs. In addition, the Legislature gave it \$2.5 million in 1981 to fund a direct loan by a municipality. The municipality repaid the loan and the Bond Bank retained the funds. In 2012 the Legislature appropriated \$13.2 million to the Bond Bank to forgive loans from the General Fund. Since its inception, the Bond Bank has transferred \$27.8 million to the

General Fund. In recent years, due to extraordinarily low interest rates, the earnings of the Bond Bank have been less than operating costs and no dividend has been available.

#### Alaska Railroad Corporation

The Alaska Railroad Corporation operates freight and passenger rail services between Seward and Fairbanks, including a spur line to Whittier. In addition, the Corporation generates revenues from real estate it owns.

The State bought the railroad from the federal government in 1985. The purchase price of \$22.7 million was recorded as the State's capitalization. The Corporation does not pay a cash dividend to the General Fund.

#### Alaska Seafood Marketing Institute

The Alaska Seafood Marketing Institute is a marketing organization with the mission of increasing the economic value of Alaska seafood. It conducts advertising campaigns and public relations for the seafood industry. It also works directly with food service distributors, retailers, and restaurants to build the Alaska Seafood brand. The Seafood Marketing Institute is a public-private partnership and receives funding from the State, the federal government and private industry.

The State levies a 0.5% assessment on fisheries to support the Seafood Marketing Institute's operations. In addition, it received \$4.3 million in federal funding and \$ 8.2 million from the General Fund.

#### Alaska Student Loan Corporation

The Alaska Student Loan Corporation issues debt and recycles education loan payments

to finance education loans. Education loan payments satisfy its debt obligations and provide its operational funding.

Alaska statutes authorize the board of directors to issue bonds for the purpose of financing projects of the State. Those bonds in aggregate may not exceed \$280 million. Investment earnings on proceeds of \$163 million in bonds issued in 2004 under this statute are also used to finance state projects. In FY 1988, the State transferred \$260 million of existing student loans to this corporation. Additional appropriations of cash between FY 1988 and FY 1992 totaled \$46.7 million.

Also, at the discretion of its board of directors, the Student Loan Corporation may make available to the State a return of contributed capital or dividend for any base year in which the net income of the corporation is \$2 million or more. A base year is defined as the year two years before the payment year. If the board authorizes a payment, it must be between 10% and 35% of net income for the base year.

#### University of Alaska

The University of Alaska, the only public institution of higher learning in the State, is a constitutionally-created corporation of the State that is authorized to hold title to real and personal property and to issue debt in its own name. The University is a statewide system that consists of three universities located in Anchorage, Fairbanks, and Juneau, with each having extended satellite colleges and sites throughout Alaska. The University is governed by an eleven-member Board of Regents, which is appointed by the Governor.

The University of Alaska System is primarily supported by General Fund appropriations, student tuition and fees, and grant and contract revenue from a diverse group of federal agencies, the State, and private sponsors, including the University of Alaska Foundation.