SJR 10

<TARGET><BILL>SJR 10</BILL><SUBJECT>SJR 10</SUBJECT><COMM>SSTA27</COMM></TARGET>

ALASKA STATE LEGISLATURE

Session

State Capitol, Rm. 101
Juneau, AK 99801
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Interim

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Chair
State Affairs Committee

Co-chair
Joint Armed Services Committee

Vice Chair
Resources Committee
Judiciary Committee

Member
Administrative Regulation Review

SENATOR BILL WIELECHOWSKI

Constitutional Amendment to Modify the Constitutional Budget Reserve
SPONSOR STATEMENT

"A penny saved is a penny earned." – Benjamin Franklin

For the past five years the state has experienced large oil revenue surpluses, which have put the State in the enviable position of having the largest amount of money in savings in the nation ($16 billion), not including the Permanent Fund. This constitutional amendment will ensure that we continue to save for our future when we have large surpluses.

The Constitutional Budget Reserve (CBR) was established in 1991 in order to serve as a "rainy day" fund to help balance the state budget in times of budget deficits. In addition to investment returns and one time legislative appropriations, the only additions to the CBR are through settlement payments through litigation involving natural resources. While the CBR worked as a rainy day fund during budget deficits and was replenished after a few years of high oil surpluses, the CBR does not require savings during years with high oil revenues, which we as a state are facing today.

SJR 10 would cap the amount of unrestricted oil revenue that can be spent in a given year at $6 billion adjusted for inflation, and put 2/3 of the money above the cap into the CBR. This would not only require that the legislature save more money in times of high oil revenues, but would also put pressure on the legislature to restrain the growth of government, and create a more stable fiscal system.

SJR 10 would bring this constitutional amendment before the people for a statewide vote, and I urge you to support this joint resolution in order to allow Alaskans decide how best we should plan for our children's future.

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Explanation of Changes of SJR 10 From Version "I" to S STA CS Version "D"

- **Page 1, line 14**: Removed "in population" to keep the $6 billion threshold from increasing too quickly.
- **Page 1, line 15:** Removed "on July 1" to allow time for officials to calculate actual annual unrestricted oil revenue.
- **Page 2, lines 7-8:** Added "that is not deposited into the permanent fund created under Section 15 of this article" to ensure that the proposed amendment will not apply to Permanent Fund royalty payments.

27-LS1091\D
Kirsch
1/20/12

CS FOR SENATE JOINT RESOLUTION NO. 10(STA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SEVENTH LEGISLATURE - SECOND SESSION

BY THE SENATE STATE AFFAIRS COMMITTEE

Offered:
Referred:

Sponsor(s): SENATOR WIELECHOWSKI

A RESOLUTION

Proposing an amendment to the Constitution of the State of Alaska relating to deposits to the constitutional budget reserve fund from surplus oil revenue.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** Article IX, sec. 17(a), Constitution of the State of Alaska, is amended to read:

(a) There is established as a separate fund in the State treasury the budget reserve fund. Except for money deposited into the permanent fund under Section 15 of this article, **the following shall be deposited in the budget reserve fund:** all money received by the State after July 1, 1990, as a result of the termination, through settlement or otherwise, of an administrative proceeding or of litigation in a State or federal court involving mineral lease bonuses, rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments or bonuses, or involving taxes imposed on mineral income, production, or property, **and two-thirds of the difference between $6,000,000,000 adjusted by the cumulative change, derived from federal indices as prescribed by law, in inflation since July 1, 2013, and the actual annual unrestricted oil revenue as determined each year for the previous fiscal year** [SHALL BE DEPOSITED IN THE BUDGET RESERVE FUND]. Money in the

budget reserve fund shall be invested so as to yield competitive market rates to the fund. Income of the fund shall be retained in the fund. Section 7 of this article does not apply to deposits made to the fund under this subsection. Money may be appropriated from the fund only as authorized under (b) or (c) of this section. **In this subsection, "unrestricted oil revenue" means the amount received from oil lease bonuses, rentals, royalties, royalty sale proceeds, federal oil revenue sharing payments or bonuses, and taxes imposed on oil income, production, or property that is not deposited into the permanent fund created under Section 15 of this article.**

*** Sec. 2.** The amendment proposed by this resolution shall be placed before the voters of the state at the next general election in conformity with art. XIII, sec. 1, Constitution of the State of Alaska, and the election laws of the state.

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SENATOR BILL WIELECHOWSKI

SJR 10: Saving for our Future

Fact Sheet

- This legislation would enhance the capacity of the Constitutional Budget Reserve (CBR) to serve as a 'rainy day' fund to help Alaska weather future fiscal and economic turmoil.

- SJR 10 would cap the amount of unrestricted oil revenue that can be spent in a given year. 2/3 of unrestricted oil revenue above $6 billion (annually adjusted for inflation) would be added to the CBR.

- Currently, there is no mechanism to add money automatically into the CBR when there are budget surpluses. Creating this mechanism ensures that savings will occur, despite short term political pressures.

- Cutting off the peaks and filling in the valleys of our oil revenue will provide greater stability.

1/21/2012

FISCAL NOTE

STATE OF ALASKA cost ≠ codes
2012 LEGISLATIVE SESSION

Bill Version: **SJR10**
Fiscal Note Number:
Publish Date:

Identifier (file name): SJR010-OOG-DOE-1-22-12
Title: Constitutional amendment relating to deposits to the constitutional budget reserve fund...
Sponsor: Senator Wielechowski
Requester: Senate State Affairs

Dept. Affected: Office of the Governor
Appropriation: Elections
Allocation: Elections
OMB Component Number: 21

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	FY13 Appropriation Requested	Included in Governor's FY13 Request	Out-Year Cost Estimates				
OPERATING EXPENDITURES	**FY13**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Personal Services							
Travel							
Services	1.5						
Commodities							
Capital Outlay							
Grants, Benefits							
Miscellaneous							
TOTAL OPERATING	**1.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

FUND SOURCE		(Thousands of Dollars)						
1002	Federal Receipts							
1003	GF Match							
1004	GF	1.5						
1005	GF/Prgm (DGF)							
1037	GF/MH (UGF)							
1178	temp code (UGF)							
TOTAL		**1.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

POSITIONS							
Full-time							
Part-time							
Temporary							

CHANGE IN REVENUES							

Estimated SUPPLEMENTAL (FY12) operating costs _____ *(separate supplemental appropriation required)*
(discuss reasons and fund source(s) in analysis section)

Estimated CAPITAL (FY13) costs _____ *(separate capital appropriation required)*
(discuss reasons and fund source(s) in analysis section)

Why this fiscal note differs from previous version (if initial version, please note as such)

Initial version

Prepared by: Gail Fenumiai, Director — Phone: 465-2644
Division: Division of Elections — Date/Time: 1/22/2012, 10:45am
Approved by: Guy Bell, Administrative Director — Date: 1/22/2012
Administrative Services

(Revised 8/17/2011 OMB)

FISCAL NOTE

STATE OF ALASKA
2012 LEGISLATIVE SESSION

BILL NO. SJR10

Analysis

Passage of this resolution would require the constitutional amendment to appear on the 2012 general election ballot. The cost of providing information about the constitutional amendment in the Official Election Pamphlet, as required by AS 15.58, is $1.5. Should the addition of this resolution require printing an 8-1/2 by 18 inch ballot, the cost will increase to $22.0.

LEGAL SERVICES

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LEGISLATIVE AFFAIRS AGENCY
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MEMORANDUM January 11, 2012

SUBJECT: Sectional Summary of SJR 10 (Work Order No. 27-LS1091\I)

TO: Senator Bill Wielechowski
Attn: Samuel Gottstein

FROM: Lisa Moritz Kirsch
Legislative Counsel

You have requested a sectional summary of the above-described bill.

As a preliminary matter, note that a sectional summary of a bill should not be considered an authoritative interpretation of the bill and the bill itself is the best statement of its contents. If you would like an interpretation of the bill as it may apply to a particular set of circumstances, please advise.

Section 1. Amends the Alaska Constitution to increase deposits to the constitutional budget reserve to two-thirds of the difference between $6 billion (adjusted annually using federal indices of population and inflation) and the annual unrestricted oil revenue. Defines "unrestricted oil revenue" as oil lease bonuses, rentals, royalties, royalty sale proceeds, federal oil revenue sharing payments or bonuses, or taxes imposed on oil income, production, or property.

Section 2. Provides that this amendment will appear on the ballot for voter approval at the next general election.

LMK:plm
12-015.plm

Anchorage Daily News January 8, 2012

Our View: State savings? Good idea

Some lawmakers aim to fortify reserves while surpluses last

Sen. Bill Wielechowski wants a constitutional amendment to limit state spending of unrestricted oil revenue to $6 billion a year, with two-thirds of the rest deposited in the Constitutional Budget Reserve.

Sens. Johnny Ellis, Bettye Davis, Tom Wagoner and Wielechowski want to tap Alaska's surplus for a $2 billion deposit into the Permanent Fund -- over and above the constitutional deposit requirement -- and $2 billion more to help cover the state's pension obligations. By whatever means work best -- and in whatever amounts make the most sense -- Alaska should do all of the above: cap spending of oil revenues, keep reserves strong, build the Permanent Fund and cover retirement costs.

"I think we've got an obligation to put as much money as we can into savings," Wielechowski said. He argues that talk of providing for our children and children's children is just talk unless we back it up with real money.

He's right. All of these savings mechanisms -- CBR, Permanent Fund, a proposed Alaska pension trust -- can help keep Alaska on a sound financial basis.

We're blessed. We've said if before and it bears repeating. Other states have struggled to make ends meet, laid off police and teachers and cut programs. Alaska counts its surplus in double-digit billions, last fall sent a dividend check of $1,174 to every resident and just had its credit rating raised to AAA.

While other states struggle to deal with less, our challenge is to wisely manage more. If Department of Revenue projections pan out, we'll have more than $5 billion in surplus oil money from the current fiscal year and the next. Wise management means savings. There should be broad agreement about that. The question then is what's the most effective way to save.

Wielechowski's amendment would use the authority of the state constitution to force lawmakers to save.

One legislature cannot bind a future legislature -- but the constitution can. At $6 billion (with growth allowed for population and inflation) we should have plenty of money for operations and robust capital spending before we hit the cap.

Personally, Wielechowski said, he'd like to build the CBR into a $50 billion fund that could earn enough money to help cover future state spending, making it both a reserve and an endowment. Some would argue that was the purpose of the Permanenet Fund, but politically the Permanent Fund has become all but untouchable for anything but dividends. That could change. Whether it does or not, it's a good idea to deposit some of our billions in the Permanent Fund for two reasons.

One, the deposit will put more of Alaska's wealth aside for future Alaskans. We can't settle for them the debate over the best use of Permanent Fund earnings. Our job is to make sure there's plenty to argue about. Our job is to make good on the promise of "permanent,"

turning the nonrenewable resource of oil into a renewable endowment that spans generations.

Two, while saving for the future the deposit will enhance the present and near future by putting more of Alaska's oil wealth to work now, which is likely to boost dividends.

Eat our cake and have it too? Yes, we can -- if we're smart. It's not all blue sky ahead -- federal money will diminish, we have some challenges unlike those of our neighbors in the

Lower 48, and recent history reminds us how fast reserves can burn. But Alaska has the means to spend, invest and save -- all at the same time.
We can argue about how well Alaska has done with its wealth, but Alaska has proved it knows how to save -- and the upcoming legislative session will be a good time to prove it again.

BOTTOM LINE: Let's make sure our billions outlast us.

adn.com
Anchorage Daily News

Lawmakers will debate how much to save

Two bills would stash billions into the Alaska Permanent Fund.

By BECKY BOHRER

(01/17/12 07:33:27)

JUNEAU -- One of the big issues facing lawmakers this session will be how much to spend on immediate wants and needs and how much to save for the future.

This isn't a new debate. In recent years, majorities in the House and Senate, as well as the governor, have each taken credit for socking away money while still passing robust spending plans. For some lawmakers, however, attempts at fiscal prudence haven't gone far enough.

At least two bills pending before the Legislature -- the 2012 session opens today -- would put billions of dollars into the Alaska Permanent Fund, which is far more difficult for lawmakers to get access to than other state savings accounts. Another bill proposes a constitutional amendment that would cap spending and compel future savings.

"There's plenty of money to go around if we manage it wisely," said Sen. Johnny Ellis, D-Anchorage.

Ellis is the lead sponsor of SB142, which would move $2 billion from the Constitutional Budget Reserve Fund into the Permanent Fund. The measure would put another $2 billion from the reserve fund into a special fund intended to help address the state's pension debt. Ellis is separately proposing the creation of a pension reserve fund.

Ellis said legislation like this, which has at least one Republican co-sponsor, helps focus the conversation on saving. It's not clear how much traction the measures will get.

House Speaker Mike Chenault, R-Nikiski, said the Legislature has been doing the right thing the last several years by putting money into savings and being "somewhat frugal." But he said he doesn't think lawmakers should be mandated to put a certain amount aside, noting uncertainties about future revenues.

He said if it makes sense to put more money toward addressing the unfunded pension liability then that's what should be done. But he said lawmakers also must be careful about tying up liquid assets, as that could leave the state in a precarious financial position in the future.

A spokeswoman for Gov. Sean Parnell, Sharon Leighow, said the administration had no specific comment on the proposed legislation, pending further review. But she said Parnell has already committed to saving surplus revenue and proposed additional savings to draw from in leaner years.

"His fiscal responsibility is also demonstrated by record vetoes he exercised across the last two years," she said.

Alaska is in an enviable position among states. It didn't feel the effects of the U.S. recession nearly as much as most other states and high oil prices have helped to keep its treasury flush. As of July 1, the start of this fiscal year, Alaska had $15.9 billion in undesignated savings, a category that

includes the constitutional and statutory budget reserve funds and Permanent Fund earnings reserve account. Total market value of the Permanent Fund currently stands at about $39 billion.

But challenges lie ahead. The state's economy relies heavily on oil production and federal funding. Oil production has been declining and federal funding is expected to diminish, as Congress faces a massive deficit. Then there's the pension issue. The state is facing an estimated $11 billion unfunded pension liability.

Parnell has proposed cutting oil production taxes as a way to boost exploration and production, but his plan faces a tough road in the Senate.

Ellis' bill would be a one-time deal, as would a proposal by Rep. Mike Doogan, D-Anchorage, which would take $10 billion from the constitutional budget reserve and put that money into the Permanent Fund. Adding to the principal of the Permanent Fund would likely boost over time the size of the dividend that Alaskans receive. The last time the Legislature made a transfer from outside the Permanent Fund was 1985 -- and it was $300 million.

The state constitution would have to be amended for lawmakers to access the Permanent Fund principal.

The proposed constitutional amendment, by Sen. Bill Wielechowski, D-Anchorage, would be perpetual, capping at $6 billion the amount of unrestricted oil revenue that could be spent in a year and requiring that at least two-thirds of the money above the cap be put into the constitutional budget reserve. (The cap would be adjusted for inflation and population growth.)

If the measure passes the Legislature, Alaskans will get a chance to vote on it.

"I think this will be a big point this year in the Legislature because we've got a lot of money and want to make sure we don't blow it all," Wielechowski said.

Ellis said that over the last five years, about $11 billion has been put into the constitutional and statutory budget reserve funds. He credits the Senate's bipartisan majority with leading the way, noting that several years ago, senators had buttons made declaring that they were on a "savings spree."

Doogan said there's been more talk about saving recently but he argues that neither the Legislature nor the governor is taking the issue more seriously, noting the continued growth in Alaska's operating budget. Parnell has blamed recent year increases in large part on formula-driven programs, like education and Medicaid.

Doogan laughed when asked if he thought his bill, which was introduced last year, would get a hearing.

"The impetus is to spend money, not to save money," he said. "Politicians talking about saving money is a good thing, but I don't see that happening."

[Print Page] [Close Window]

New constitutional proposal aimed at boosting savings

January 5, 2012

By Pat Forgey

JUNEAU EMPIRE
Alaska should be saving more for the future, a state senator says, and he's going to introduce legislation this year to try to force that to happen. At the same time, Gov. Sean Parnell wants to reduce how much Alaska makes from oil taxes, and is continuing to advocate for cuts.

Sen. Bill Wielechowski, D-Anchorage, said his proposed constitutional amendment is not a challenge to Parnell, who he praised for supporting more savings. Instead, he said, it is intended to highlight the fact that Alaska is consuming a limited oil resource.

Wielechowski said it is an idea that sounds difficult, but is getting some interest in the Legislature.

"I think there's a growing consensus among legislators that it is something we need to talk about," he said. "I know that it is something that I've thought a lot about."

Wielechowski proposed that state spending of unrestricted general fund revenue be capped at $6 billion, indexed for inflation and population growth.

Any leftover unspent money would then go into the voter-created Constitutional Budget Reserve (CBR). That's a hard-to-access state savings account that legislators can only dip into if they have overwhelming support.

"It forces savings into the CBR," Wielechowski said.

To do that, Wielechowski said, would take amending the Alaska Constitution. To start the process would take approval of two-thirds of the members of the Senate and House of Representatives, and then approval by voters in 2012.

Were his proposal in place this year it would likely force additional savings of $1.4 billion, he said.

Parnell spokeswoman Sharon Leighow didn't comment directly on Wielechowski's proposal, but said the governor has already committed to saving surplus revenue and holding down spending.

"The governor proposes to put billions in savings this year to draw from in more lean years. His fiscal responsibility is also demonstrated by record vetoes he exercised across the last two years," she said.

Wielechowski said he's asked the Legislative Finance Division to develop estimates of what the financial impact of such a measure would have been had it been in place over the last few years, and what impact it would have in the future.

"We've been good in recent years as far as savings go," he said.

In 2008, the Alaska Legislature, at the behest of then-Gov. Sarah Palin, added $1,200 to each Permanent Fund Dividend, both to share the state's oil proceeds with the public and defray the cost of the suddenly much higher gas and oil prices.

Wielechowski said he didn't know whether that extra payment would have been allowed under his proposal, and it would be up to the Legislative Finance Division to answer that question.

The Fiscal Year 2013 Budget:

Legislative Fiscal Analyst's Overview of the Governor's Request

Legislative Finance Division

www.legfin.state.ak.us

State of Alaska Fiscal Summary--FY12 and FY13

($ millions)

Part 2--Approximate Balances of Savings Accounts

	FY12				FY13			
	BoY Balance	In	Out	EoY Balance	BoY Balance	In	Out	EoY Balance
Permanent Fund (no appropriations allowed)	**33,044.0**	**1,767.0**	**0.0**	**34,811.0**	**34,811.0**	**1,756.0**	**0.0**	**36,567.0**
Undesignated Savings	**16,098.7**	**4,475.2**	**1,523.0**	**19,050.9**	**19,050.9**	**4,813.5**	**1,516.0**	**22,348.4**
Other Undesignated Savings	**13,790.6**	**2,324.2**	**0.0**	**16,114.8**	**16,114.8**	**2,450.5**	**29.0**	**18,536.3**
Constitutional Budget Reserve Fund (cash)	10,348.5	51.0	0.0	10,399.5	10,399.5	558.7	0.0	10,958.2
Statutory Budget Reserve Fund **(1)**	2,632.6	1,989.7	0.0	4,622.3	4,622.3	1,787.5	0.0	6,409.7
Alaska Housing Capital Corporation Fund	768.3	261.5	0.0	1,029.8	1,029.8	82.4	29.0	1,083.1
Alaska Capital Income Fund	41.3	22.0	0.0	63.3	63.3	22.0	0.0	85.3
Permanent Fund Earnings Reserve Account	**2,308.1**	**2,151.0**	**1,523.0**	**2,936.1**	**2,936.1**	**2,363.0**	**1,487.0**	**3,812.1**
Designated Savings	**2,199.0**	**1,275.4**	**1,336.0**	**2,138.5**	**2,138.5**	**1,263.9**	**1,222.8**	**2,179.5**
Public Education Fund	1,188.1	1,154.3	1,186.1	**1,156.3**	1,156.3	1,139.7	1,139.7	**1,156.3**
Revenue Sharing Fund	180.0	60.0	60.0	**180.0**	180.0	60.0	60.0	**180.0**
Railbelt Energy Fund	66.4	0.0	66.4	**(0.0)**	(0.0)	0.0	0.0	**(0.0)**
Power Cost Equalization Endowment	764.5	61.2	23.5	**802.1**	802.1	64.2	23.1	**843.2**
Reserves (Excluding Permanent Fund Principal)	**18,297.8**	**5,750.6**	**2,859.0**	**21,189.3**	**21,189.3**	**6,077.4**	**2,738.8**	**24,527.9**
Unrestricted General Fund Appropriations				7,041.8				6,435.2
Years of Reserves (Reserves/UGF Appropriations)				3.01				3.81

(1) FY12 & FY13 assume the Governor's proposed budget is adopted and surplus amounts are deposited in the Statutory Budget Reserve Fund.

Revenue Sources Book

Alaska Department of Revenue – Tax Division

FALL 2009

3. The Constitutional Budget Reserve Fund: Its Purpose, History and Use

Boom and Bust History of Natural Resource Revenues

For all of recorded history, Alaska has been a resource extraction state. From sea otter fur to timber, to gold, and finally to oil and natural gas, Alaskans have relied on natural resources as the major economic driver in the state. Because of its economic dependence on natural resources, Alaska has had a long history of boom and bust cycles.

As early as 1778, Captain Cook observed that traders would likely find a lucrative market for sea otter pelts or "sea-beaver" as they were called at the time. In fact, Captain Cook went so far as to call the sea otter pelts "soft gold."[1] Fur from sea otters and seals did indeed become a major source of revenue for Alaskan traders. Yet less than fifty years after Captain Cook correctly predicted the value of the sea otter trade in Alaska, a "fur boom" ensued and sea otters were hunted to virtual extinction.[2] This pattern of discovery of a resource in commercial quantities, followed by a subsequent rush to harvest the resource and ultimately the depletion of the resource, sadly played out again and again in Alaska over the next hundred years. Gold caused the next natural major resource boom for Alaska only to crash in the early 1940s. Fishing, specifically salmon, was a leading source of revenue for the Alaskan economy during World War II.

Another significant source of revenue in Alaska is federal spending, especially military spending. During World War II, over a billion dollars in federal money flowed into the state over a relatively short period of time, leading some to refer to the period as a "defense rush." Yet Alaska experienced a painful contraction within a few years of the end of World War II.

While federal revenues were flowing into the state at a record pace, tax revenues from the two leading sources of government revenue, fishing and mining, were dropping. Revenues from fishing and mining dropped so dramatically in the 1940s that by 1948, alcohol taxes had overtaken fishing and mining to become Alaska's main source of revenue.[3] At the same time, spending for state services skyrocketed, leaving Alaska with a multi-million dollar budget shortfall in 1947.

[1] Barnett, James K. *Captain Cook in Alaska and the North Pacific*, Todd Communications, Anchorage, Alaska, 2008.
[2] ibid.
[3] Cole, Terrance. *Blinded by Riches: The Permanent Funding Problem and the Prudhoe Bay Effect.* University of Alaska Institute of Social and Economic Research. Anchorage, Alaska, 2004.

Over the years there were numerous discussions of the need to stabilize revenues and protect Alaska from the boom and bust cycles associated with reliance on natural resources, but there never seemed to be enough of a surplus or a willingness to save until oil was discovered in Alaska in world-class quantities.

The Permanent Fund

By the late 1970s, numerous groups and individuals had pointed out the need for Alaska to establish a savings fund to protect against swings in commodity prices for natural resources. As early as 1941, then Territorial Governor Ernest Gruening called for a budget stabilization fund to guard against the revenue volatility experienced by a natural resources dependent economy.[4]

Gruening's dream of an "Alaska fund" came true in the form of the Alaska Permanent Fund. While one purpose of the Permanent Fund was arguably to create a "rainy day account" for government spending when oil revenues dwindled, it has not been used for that purpose. Former Governor Jay Hammond is credited with the idea of generating public support for protecting the Alaska Permanent Fund by paying out dividends to Alaskans. The idea has been quite effective.

While legislators may appropriate money from the earnings of the Alaska Permanent Fund for government projects, the dividend program has made any dipping into the Alaska Permanent Fund for purposes other than dividends extremely controversial.

The 1980s Bust and Impetus for CBR

In the mid-1980s, roughly a decade after the Alaska Permanent Fund was established, Alaska experienced another severe resource bust as the price of oil dropped to roughly $10 per barrel, bringing widespread foreclosures and bankruptcies to Alaska.

The 1980s bust was the same painful story Alaskans weathered through for over a century: resources flowed in and government spending grew, resources played out or values dropped and suddenly Alaskans were faced with a tremendous shortfall. As the individual income tax and several other state taxes were repealed in 1979-1980 as a result of soaring oil revenues, taxes paid by Alaskan residents plummeted. As Stephen Jackstadt and Dwight Lee noted, "real taxes paid to the state by individual Alaskans after 1980 were only 14 to 16 percent of the real taxes they paid during fiscal year 1976."[5]

Revenues were declining and state spending was expanding. Over the seven years from 1981 to 1988, state spending increased almost 2,000% with state spending representing approximately $70,000 per Alaskan.[6]

Statutory Budget Reserve

In 1986 as the Alaskan economy cratered under the pressure of $10 per barrel oil, the legislature created another "rainy day" account: the Statutory Budget Reserve. The Statutory Budget Reserve was created to cover General Fund shortfalls using "excess revenues" from more profitable years.

The Alaska Legislature seeded the Statutory Budget Reserve with the balance of the remaining General Funds at the end of fiscal year 1991, $696.3 million.[7] By fiscal year 1994, the legislature had appropriated all of the money in the Statutory Budget Reserve leaving it with a zero balance. However, in 2008 the Legislature deposited approximately $1 billion in the Statutory Budget Reserve, which remains in the account today.

The Statutory Budget Reserve served its purpose for a short period of time before lying empty for over a decade. There was concern among some state legislators that the problem with the Statutory Budget Reserve was that funds were available through a simple majority vote. Some felt the Statutory Budget Reserve was doomed to fail because the money in the fund was simply too easy to spend.

Constitutional Budget Reserve History and Passage

The statutory reserve fund alone was not sufficient to protect Alaska from declining oil production and volatile prices. In the late 1980s, Alaskan legislators began discussing the idea of creating another budget reserve to be enshrined in the Alaska Constitution. The concept of the Constitutional Budget Reserve (CBR) as we know it today (an account containing oil and

[4] Cole, Terrance. *Blinded by Riches: The Permanent Funding Problem and the Prudhoe Bay Effect.* University of Alaska Institute of Social and Economic Research. Anchorage, Alaska, 2004.
[5] Jackstadt, Stephen L., and Dwight R. Lee. "Economic Sustainability: The Sad Case of Alaska." *Society.* Vol. 32 Issue 3. 1995.
[6] ibid.
[7] State of Alaska, Department of Revenue, Treasury Division. *Investment Policies and Procedures.* Ver. 3.0. Juneau, Alaska. 2007.

gas settlements from which appropriations generally require a three-quarter majority vote) came about as the state was considering the possibility of a large windfall from an oil settlement. Currently, CBR funds consist of revenues from the settlement of litigation over mineral taxes and royalties and the interest earned on those funds.

The legislation that created the CBR was sponsored by Senator Jan Faiks. Senator Faiks was the Chair of the Senate Judiciary Committee at the time and had just finished two years as the first female president of the Alaska State Senate from 1987 to 1988. Although Senator Faiks was the prime sponsor of the bill that created the CBR, the legislature changed the bill, which was ultimately combined with elements of a House Finance bill shepherded by Representative Kay Brown.

Originally, Senator Faiks' bill contained a number of provisions related to budgeting, one of which was labeled the Budget Stabilization Fund. Several other major sections in Faiks' bill were removed through the committee process including a constitutional spending limit to accompany the budget stabilization fund.

Today, under most circumstances the legislature can appropriate funds from the CBR only with a three-quarters majority vote. However, it is possible to make appropriations from the CBR with a simple majority vote under certain circumstances as provided in section 17(b) of the Constitution, and the legislature did so in 2003. Withdrawals from the CBR are required to be repaid.

The CBR was established in 1991, and since that time more than a dozen pieces of legislation have been introduced that would amend or change the CBR. However, the only significant changes to the CBR have been the asset allocation and the establishment of the CBR sub-account, a separate fund invested and managed with a longer time horizon than the main fund.

The CBR has been used heavily since 1991 and its exhaustion date is regularly forecasted as part of the official fall revenue forecast each year. There have been warnings that the State of Alaska will face a "fiscal gap" when the CBR is exhausted.

CBR Legislative and Balance History

Mary Halloran of the Governor's Office of Management and Budget summed up the impetus for the legislation in her comments before the Senate Finance Committee, which ultimately authorized the Constitutional Budget Reserve: "In mentioning the outstanding oil and gas litigation, [Halloran] said that, though the timeline is uncertain, it looks like the State could have some 'windfalls' during the next five years. [Halloran] said the Legislature has taken some very strong steps over the last couple of years to try to stabilize the spending limit, but there are still a number of programs 'out of control.'"[8]

Former Senator Jan Faiks recalled the passage of Senate Joint Resolution 5 (SJR 5) and creation of the CBR reserve as a bipartisan effort: "The decision was contentious because hardly anyone wanted to change the terms and conditions of the original Permanent Fund without approval from the people. So most Senators... insisted on another statewide vote and I think most House members agreed; thus, it was a bipartisan decision to propose a constitutional amendment. The Governor [Cowper] gets credit for recognizing the state had a real financial problem and he wanted to find a permanent solution. We knew the current situation of relying on the ups and downs of oil revenues was not good for either state or local governments. A bipartisan solution had to be found."[9]

Originally, SJR 5 was an updated version of a bill that had passed the Senate nearly unanimously in 1987. The bill called for a 50-30-20 distribution of the income of the Permanent Fund. Fifty percent of the Permanent Fund's earnings would have gone to the payment of dividends, thirty percent to inflation proofing and twenty percent to a budget stabilization fund. The twenty percent of earnings in Senator Faiks' bill as originally introduced eventually became the CBR as we know it today. One major piece of Senator Faiks' bill that was removed in the process was an appropriation limit. Another was a sunset clause under which the constitutional amendment would have expired after five years.

Just getting the bill out of the Senate was a challenge, even for the former Senate President Faiks. After failing to pass once and being returned to the Rules Committee on a motion by Senator Arliss Sturgulewski, SJR 5 was reported out of the Rules Committee and brought to the Senate Floor under a supplemental calendar on April 18,

[8] Testimony of Mary Halloran. 16th Alaska State Legislature, Senate Finance Committee. February 2, 1990. Transcribed by Alaska Legislative Records Dept.

[9] Faiks, Jan. "CBR." Email to Department of Revenue. November 10, 2009.

1990. The bill passed the Senate by a vote of 15-5 with Senators John Binkley and Michael Szymanski switching their votes to support passage.

Meanwhile, in the State House of Representatives, a bill with similar intent was making progress. House Joint Resolution 66 (HJR 66), while nominally sponsored by the House Finance Committee, was heavily supported by Representative Kay Brown. In fact, the legislative record describes Representative Brown as the Prime Sponsor of HJR 66. Co-Chairman of the House Finance Committee Ron Larson explained that the bill, "...evolved from the House Finance Fiscal Policy Subcommittee, chaired by Representative Brown, and was modified by the House Judiciary Committee."[10] The two bills (SJR 5 and HJR 66) finally collided in May of 1990 in the House Finance Committee.

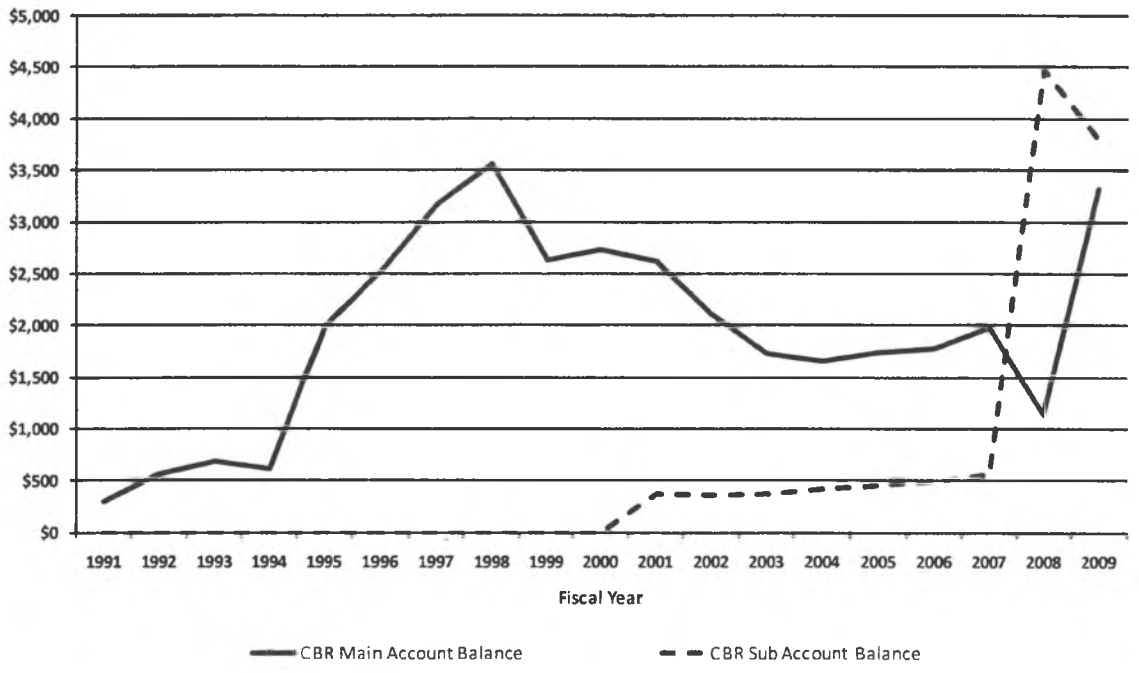
As is often the case with two pieces of similar legislation introduced separately in the House and Senate, the first bill to pass its respective house of origin typically becomes the "vehicle" or version to pass into law. In this case, SJR 5 by Senator Faiks had already passed the Senate and was assigned to the House Finance Committee for a hearing. HJR 66 never passed the House. However, the language from HJR 66 relating to the budget reserve, including the use of the term "budget reserve" rather than "budget stabilization fund" as it was referred to in SJR 5, was incorporated into SJR 5. Representative Brown testified before the House Finance Committee that the language in SJR 5 was nearly identical to the language in HJR 66 after the House Finance Committee had amended SJR 5.

In essence, SJR 5 was amended in the House to reflect the language of HJR 66. In the process, the spending limit in SJR 5 was eliminated. Numerous legislators and the Alaska Public Employees Association, a public employees union, opposed the constitutional spending limit.[11] Because the spending limit was deemed not politically viable, it was removed.

The Senate concurred with the House in a vote of 15-5 on May 8, 1990. The bill was sent to the governor on May 24, 1990, for signature. Governor Steve Cowper signed the bill almost exactly two months later on July 23, 1990.

Despite the passage of SJR 5 and the creation of the CBR, some question

Figure 3-1. Balance of the Constitutional Budget Reserve Main Account and Sub Account ($ million)



[10] Testimony of Ron Larson. 16th Alaska State Legislature, Senate Finance Committee. May 1, 1990. Transcribed by Alaska Legislative Records Dept.
[11] Testimony of Margaret Branson and Fran Ulmer. 16th Alaska State Legislature, Senate Finance Committee. May 1, 1990. Transcribed by Alaska Legislative Records Dept.

remained about which funds were to be deposited into the CBR. Former Governor Cowper and a number of legislators sued then Governor Wally Hickel, Department of Revenue Commissioner Darrel Rexwinkle and the State of Alaska in 1993 to dispute the State's interpretation of "administrative proceeding." Former Governor Cowper and the legislators argued that the State had been improperly depositing funds received during the informal conference stage of dispute[12] into the General Fund when they should have been deposited into the CBR. The Alaska Superior Court ruled in favor of former Governor Cowper and required the state to properly fund the CBR, with interest and foregone earnings, by the end of the regular session of the 18th Alaska Legislature in 1994.[13]

In another instance, nearly a billion dollars in funds which should have been deposited in the CBR were spent instead. When oil companies ARCO, Unocal, BP Exploration and Chevron agreed to pay the state $1.7 billion to settle long-running disputes over payments of back taxes and royalties in 1992 and 1993, the governor and legislature appropriated over half the amount. By spending this settlement rather than saving it, the state was able to maintain overall spending and more than double capital spending, from $300 million to $616 million.[14]

Historically, funds from the CBR were usually appropriated for general purposes. However, the CBR has also been used to fund specific programs in a number of instances. For example, a 2004 legislative research report listed the following expenditures from the CBR for specific programs: expenditures for oil and gas litigation and state title to oil and gas lands, capitalization of the Alaska Mental Health Trust, Y2K assessment, compliance, and remediation, and establishment of the Power Cost Equalization endowment fund.[15]

Figure 3-1 illustrates the history of the balances in the Constitutional Budget Reserve and the sub-account of the CBR from the first deposit through fiscal year 2009. Figures 3-2 and 3-3 illustrate the balance of each the Constitutional Budget Reserve and the Constitutional Budget Reserve sub-account with contributions and withdrawals by year. Figure 3-4 presents this information in tabular form.

CBR as a Stabilization Fund or Alternative to Hedging

The CBR as it exists today functions as a budget stabilization fund in the same manner as funds in many other states and oil producing nations. Like many resource producing states, the State of Alaska is exposed to tremendous commodity price risk. This is a difficult position for a government as expenses typically cannot be scaled back as quickly as revenues fall.

As a result of commodity price exposure, a number of resource producing states and nations from Texas to Mexico have actively hedged oil prices. The State of Alaska has studied hedging oil prices on a number of occasions with the most detailed discussion occurring in 2002 under the direction of Department of Revenue Commissioner Wilson Condon. In its hedging report, the Department of Revenue raised some concerns with using the CBR to protect the State from commodity price volatility, but also recognized the role the CBR plays in smoothing state revenues. However, because the CBR already insulates the state from the volatility of commodity prices, the report concluded that hedging oil prices was not ideal until the CBR was depleted or nearly depleted.[16]

"Alaska has not yet needed to pay the costs or take the risks of hedging its future oil revenues because our cushion against fluctuating oil prices for the past decade has been the Constitutional Budget Reserve Fund (CBRF). The fund was established a decade ago for exactly that purpose — to fill the gap between a fluctuating revenue source and a constant need for public services," wrote the Department in 2002.[17]

[12] The informal conference stage is the appeal to the regulatory agency.
[13] State of Alaska, Legislative Audit Division. Audit of Natural Resources and Department of Revenue: Constitutional Budget Reserve Fund. By Welker Randy. Juneau, Alaska. 1994.
[14] Jackstadt, Stephen L., and Dwight R. Lee. "Economic Sustainability: The Sad Case of Alaska." *Society*. Vol. 32, No. 3. March 1995.
[15] State of Alaska, Legislative Research Division. Appropriations from the Constitutional Budget Reserve Fund for Special Purposes. By Kathleen Wakefield. Juneau, Alaska. 2004.
[16] State of Alaska, Department of Revenue. *Hedging Oil Revenues: What Is It? When Should Alaska Do It, If At All? Why Should Alaska Consider It?* Juneau, Alaska. 2002.
[17] State of Alaska, Department of Revenue. *Oil Hedging Summary*. Juneau, Alaska. 2002.

Conclusion

Alaska's economy has always been at the mercy of commodity production and prices. After centuries of exhilarating resource booms followed all too regularly by severe busts, the State of Alaska created a budget stabilization fund in 1990: Alaska's Constitutional Budget Reserve. The CBR was created shortly after a time of economic crisis and with a view toward several large windfall settlements for the state.

Over nearly two decades, the CBR has almost single-handedly staved off massive budget shortfalls. In some years, withdrawals from the CBR reached a billion dollars in nominal terms. Yet the CBR remains vulnerable to prolonged overspending and the potential that oil prices may fall.

While the CBR is still vulnerable to overspending, and has at times appeared on the verge of exhaustion, the fund has acted as a buffer against commodity price volatility for almost two decades and can be expected to do so for the near future.

Figure 3-2. Constitutional Budget Reserve Main Account Contributions/Withdrawals and Balance ($ million)

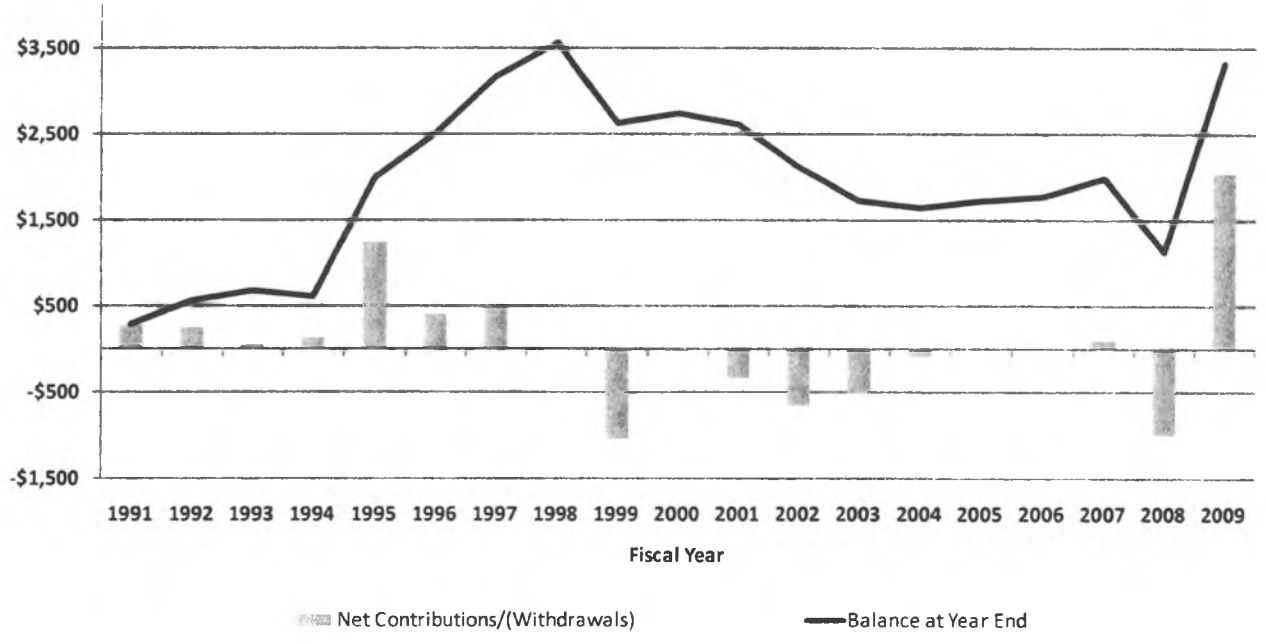


Figure 3-3. Constitutional Budget Reserve Sub-Account Contributions/Withdrawals and Balance ($ million)

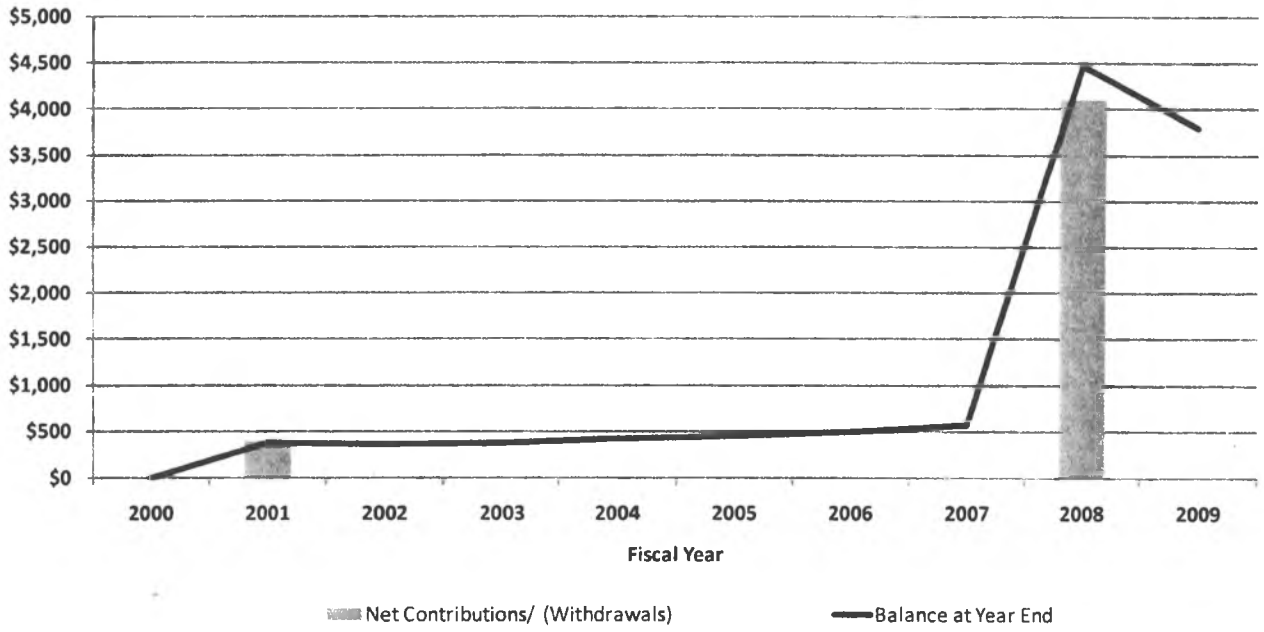


Figure 3-4. Constitutional Budget Reserve Main & Sub-Account Contributions/Withdrawals and Balance ($ million)

	MAIN ACCOUNT				SUB-ACCOUNT			
Fiscal Year	Beginning Balance	Net Contributions (Withdraws)	Investment Income	Ending Balance	Beginning Balance	Net Contributions (Withdraws)	Investment Income	Ending Balance
1991	0.0	291.0	6.0	297.0	0	0.0	0	0.0
1992	297.0	247.0	19.0	563.0	0.0	0.0	0	0.0
1993	563.0	65.0	57.0	685.0	0.0	0.0	0	0.0
1994	685.0	132.0	61.0	614.0	0.0	0.0	0	0.0
1995	614.0	1,258.0	122.0	1,994.0	0.0	0.0	0	0.0
1996	1,994.0	413.0	111.0	2,518.0	0.0	0.0	0	0.0
1997	2,518.0	487.0	167.0	3,172.0	0.0	0.0	0	0.0
1998	3,172.0	18.0	369.0	3,559.0	0.0	0.0	0	0.0
1999	3,559.0	(1,045.0)	114.0	2,628.0	0.0	0.0	0	0.0
2000	2,628.0	(9.0)	115.0	2,734.0	0.0	0.0	0	0.0
2001	2,734.0	(342.0)	227.0	2,619.0	0.0	400.0	(24)	376.0
2002	2,619.0	(648.0)	143.0	2,114.0	376.0	0.0	(21)	355.0
2003	2,114.0	(521.0)	127.0	1,720.0	355.0	0.0	18	373.0
2004	1,720.0	(81.0)	8.0	1,646.0	373.0	0.0	45	418.0
2005	1,646.0	23.0	62.0	1,731.0	418.0	0.0	36	454.0
2006	1,731.0	9.0	34.0	1,774.0	454.0	0.0	39	493.0
2007	1,774.0	101.0	106.0	1,981.0	493.0	0.0	75	568.0
2008	1,981.0	(987.0)	140.0	1,134.0	568.0	4,100.0	(200)	4,467.0
2009	1,134.0	2,040.0	144.0	3,317.0	4,467.0	0.0	(670)	3,797.0

High Oil Prices Give Alaskans a Second Chance: How Will We Use this Opportunity?

By Scott Goldsmith

Prepared for ISER 50th Anniversary Celebration
Institute of Social and Economic Research • University of Alaska Anchorage
September 2011

Think about this: 10 years ago, it looked as if Alaska was on the brink of a tough transition to a post-Prudhoe Bay economy. Oil production was half of what it had once been, the state's oil revenues were about $2 billion, financial reserves were falling, and employment in the oil industry was down. The price of Alaska oil, adjusted to today's buying power, was $27 a barrel—and that was high by historical standards.

Things have changed dramatically since then: a combination of much higher oil prices—about $115 a barrel as this paper is being written—and revisions in the way the state calculates production taxes have caused state oil revenues to skyrocket, even though oil production is down 40% since 2002. We now find ourselves in a second huge oil-revenue boom, comparable to the one in the early 1980s (Figure 1).

But Alaskans who lived through that first boom remember how fast it ended, and how the economy fell into recession overnight—which quickly focused our attention on just how important oil is to Alaska. We promised that if another boom ever came around, we'd do a better job of managing our oil resources.

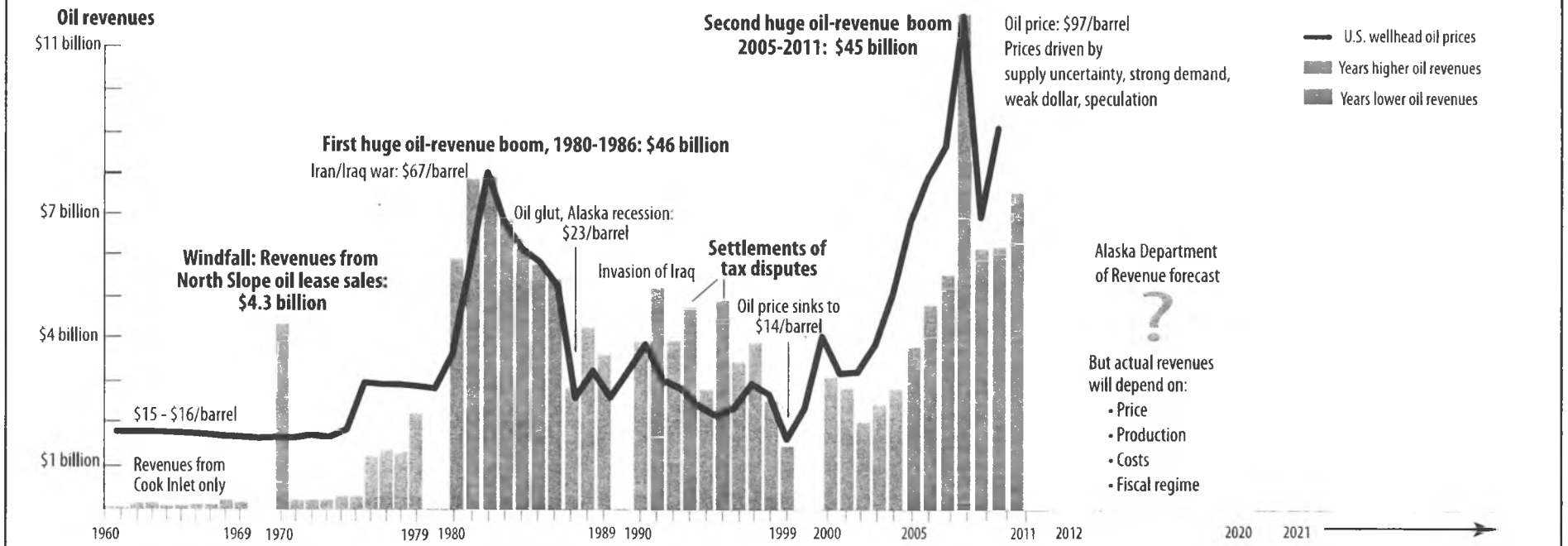
We now have that unexpected second chance, and the need to act is even more pressing. For decades, oil from huge, low-cost fields on state-owned land has supported much of the economy. But that oil is dwindling, and Alaska does face a difficult transition to a post-Prudhoe Bay economy.

Petroleum will still be the foundation of the economy, but developing new petroleum resources won't be as easy as previous development, and it won't be as profitable for the state. Other resource industries and the federal government will also still be important.

But no single resource will be able to match the enormous value of Prudhoe Bay oil. To keep Alaska prosperous, the state will need to take a more active role in managing its assets, particularly its petroleum assets. Alaska's people—and the institutions put in place since statehood—will shape decisions about how to move forward. This short paper summarizes the considerable assets Alaska will bring to the transition. We hope it will help Alaskans focus on the challenge of moving past Prudhoe Bay.

Figure 1. State Oil Revenues and Average U.S. Wellhead Oil Prices Per Barrel, 1960- 2011, In Today's Buying Power (2010 Dollars)

Revenues in state fiscal years (July-June) • Oil prices in calendar years



Sources: Alaska Department of Revenue; U.S. Energy Information Administration, crude oil first domestic purchase price

The Challenge

Two-thirds of the economic growth since statehood, as measured by jobs and income, can be traced to petroleum production, petroleum revenues, and petroleum spinoffs that have given a boost to other industries and households throughout the state.[1] Although these effects are most obvious in urban Alaska, they reach into every corner of the state—through generous public spending, low taxes, and the Permanent Fund dividend.

This prosperity has come from giant, low-cost fields—the largest being Prudhoe Bay—that the state owns on the North Slope. But now, those fields are in serious decline. As Figure 2 shows, we've used 80% of this high-revenue oil, with only about 20% of the identified 23 billion barrels of reserves remaining. Still, despite this situation, two things are currently creating a sense of complacency among Alaskans. There's a lot of petroleum employment right now, because more people are needed to squeeze the last reserves out of these fields. Also, high oil prices are bringing the state big revenues, even as production drops. Together, high employment and high prices have diverted our attention from the reality: when there is no oil left in the barrel, the associated jobs and revenues will also be gone.

And although it's impossible to predict how future events will unfold, Alaska's experience in the late 1980s—when a crash in oil prices ended the first huge oil-revenue boom—provides a glimpse of what could happen. Virtually all Alaskans were affected—by losing jobs, seeing the value of their houses plummet, or watching friends leave the state.

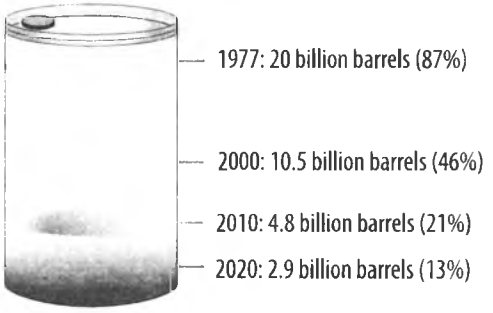
But luckily, the future doesn't have to be a repeat of the past. The state can play a significant role in shaping the transition to post-Prudhoe Alaska, by strategic use of all its assets. Alaskans need to keep in mind, however, that surprises—good and bad—will also continue to play a part in Alaska's future.

Petroleum Assets

Remaining Conventional Oil

• *The state might collect another $59 billion in revenues from existing production in the next decade, which could be used to cushion the transition—but those revenues aren't guaranteed.* The remaining 20% of the high-revenue oil from state lands is worth much more, per barrel, than the 80% already produced. That's because oil prices are so much higher today than in that past. The state revenues forecast depends on oil prices remaining high, but it also assumes that in the future production won't decline as fast, dropping just 2% a year through 2020, compared with 6% a year in the past.

Figure 2. How Much Conventional Oil Remains on State-Owned Land?



Source: Alaska Department of Natural Resources, historical production and projected future production

But the production rate on state lands—and the associated jobs and revenues—depends on investment decisions of petroleum companies. Those companies require a return on their investments consistent with opportunities elsewhere. Alaskans need to consider how to structure a tax policy that will not only bring in revenues in the short run, but encourage continued production at levels that keep the oil pipeline economically viable and future revenues flowing.

Natural Gas

• *A significant number of new jobs would be associated with finding and producing natural gas on state lands—but uncertainty in world gas markets means gas development isn't likely to happen as soon as many Alaskans hope.* There are known to be large reserves of natural gas on state lands on the North Slope. Some of that gas is already being put to use; it's reinjected into the ground to help boost production of high-value oil. The state has taken a number of steps to encourage construction of a gas pipeline, but the timeline is at least 10 years out—and today's market conditions can't be used as a basis for forecasting potential future state revenues from natural gas. It's likely gas will play a growing role in Alaska's future, but we can't rely on it as a centerpiece of a transition strategy.

Federal Lands and Non-Conventional Sources

• *Developing petroleum on federal lands onshore and offshore, as well as non-conventional sources on state lands, could produce thousands of jobs.* The potential of federal lands is huge, as are the estimated resources from unconventional sources like heavy oil. The timing of any development on federal lands is uncertain, and depends not only on economics and technology but also regulation, litigation, and legislation—over which the state has limited influence. Development of high-cost, non-conventional sources on state lands will also be affected by state tax policy. Whenever these resources are developed, they would generate employment that could match or exceed historical petroleum employment in Alaska. But potential state revenues from these resources are modest; they tend to be more remote and expensive to produce, and revenues would be shared with the federal government.

Money in the Bank

• *The state has big savings that can help pay for state government in the future, but it must continue to build those savings now.* The state currently has about $55 billion of financial assets in three accounts built on petroleum revenues—the Permanent Fund, the Constitutional Budget Reserve, and the General Fund (including but not limited to the Statutory Budget Reserve). These accounts represent the state's attempt to convert its non-sustainable oil reserves into a sustainable asset that can generate revenues long after the last drop of oil has been produced.

The size of these accounts is impressive—but even so their earnings aren't yet big enough to pay for much of state expenses—particularly since half the earnings of the largest account, the Permanent Fund, is dedicated to paying Permanent Fund dividends. But if we continue adding to those savings, they can eventually replace a substantial share of oil revenues from state lands.[2]

Other Natural Resources

• *Alaska's other natural resource industries will continue to support part of the economy—but their potential to grow is limited.* Minerals, seafood, timber, and our other natural resources, including the state's natural beauty, have always supported part of the economy.[3] With targeted public investments, appropriate regulatory policies, and other development strategies, these resource industries can continue to prosper. But their modest size, growth potential, and limited profitability mean that expecting these other natural resource industries to replace petroleum is not realistic.

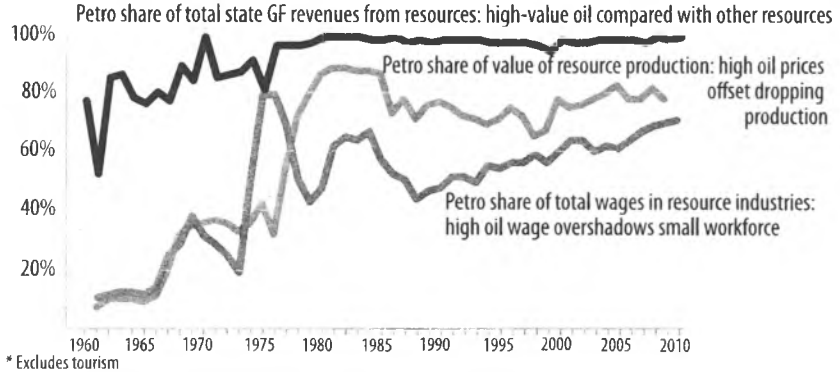
The dominance of petroleum among our natural resource industries is clear in the three measures shown in Figure 3.[4] Since 1977, petroleum has accounted for 60% of all wages paid in resource industries, 83% of the total value of resource production, and 98% of all state General Fund revenues from resource production. The figure also shows that despite continuing efforts to build on our resource base, nothing has changed petroleum's dominance since oil began flowing through the pipeline.

Many Alaskans find it hard to believe that other resources can't rival petroleum. Alaska is often described—correctly—as a storehouse of resources, waiting only for a key to unlock them. But there is no magic key. Alaska is an "island economy"—with high costs, distance from markets, and absence of scale economies. Only very valuable resources are economic to develop. Also, activities that Alaskans can readily see—like tourism—can seem more important than their dollar value indicates.

Federal Government

• *Federal spending supports an estimated one-third of jobs in Alaska, and it will continue to be important for the economy—but future federal spending won't grow as it did in the past.* A large share of Alaska's economic resilience, even as petroleum production was dropping, can be traced to growth in federal spending since the 1990s.[5] But given the federal government's budget woes, Alaska and other states are likely to see cuts—and even if new activities of the federal government were to bring new jobs, the state cannot directly tax the federal government and collect revenues, the way it does from petroleum and other private industries.

Figure 3. How Does Petroleum Contribute to Total Natural Resource Production?*



* Excludes tourism

Sources: Alaska Departments of Revenue, Labor, Natural Resources, Fish and Game, Commerce, Community, and Economic Development; U.S. Forest Service; U.S. Department of Agriculture

Shaping Alaska's First 50 Years: Unique Legislation and Institutions

In 1959, the federal government owned 99% of Alaska land and controlled the natural resources. Much of the first 50 years of statehood have been shaped by new laws and institutions governing ownership and use of the land and the resources that are the foundation of the economy.[6] These laws and institutions will also provide the context for the transition to the post-Prudhoe Bay era.

Alaska Constitution (1956)

• Established a framework for the new state, but left Alaskans broad flexibility to build government structures.[7] Voters must approve any amendments.

• Reflects the importance of natural resources for Alaska, in a unique resource clause that calls for "utilization, development, and conservation" of the state's resources for the "maximum benefit of its people" and reserving fish, wildlife, and waters "for the people for common use."[8]

Alaska Statehood Act (1959)

• Changed Alaska from territory with weak powers and undeveloped or non-existent institutions to a state with the same rights and powers as all other U.S. states.

• Awarded the state authority to select 103 million acres of federal land, to provide an economic base. Those selections turned out to include North Slope land that has provided the state's oil wealth for 40 years.

1971 Alaska Native Claims Settlement Act (ANCSA) and Alaska Native Corporations

• Awarded Alaska Natives $1 billion and rights to select 44 million acres of federal land. The law called for creation of unique new business corporations—owned by Alaska Native shareholders—to manage the land and money. Some of these corporations are still struggling to be profitable. But others now rank among Alaska's biggest businesses, and are the best example of Alaska-owned businesses benefiting from resource development.

• Included a provision authorizing the U.S. Department of the Interior to close large areas to state and Alaska Native land selections and decide how much to add to parks and other national conservation areas. That led to passage of ANILCA, in 1980 (see below).

Alaska Permanent Fund (1976)

• Established after Alaskans in 1976 approved a constitutional amendment requiring at least 25% of royalties from natural resource production to be saved in a fund the legislature couldn't spend—a "permanent" fund. Analysts say the fund may not have been unique at the time, but it was certainly rare.

• Could be opened to spending through a new constitutional amendment. But the fund has a very strong constituency among Alaskans, largely because of something that is probably unequaled anywhere: Permanent Fund dividends—which are annual payments to all Alaska residents from the *earnings* of the Permanent Fund. The legislature can't spend the fund principal, but it can spend the earnings.

1980 Alaska National Interest Lands Conservation Act (ANILCA)

• Added 104 million acres of federal land to national parks, wildlife refuges, and other conservation areas, bringing the total national conservation areas in Alaska to about 150 million acres. It passed after a decade-long fight between those who wanted more land left open for development and those who wanted more kept undeveloped.

• Requires that rural Alaskans have preference for subsistence hunting and fishing on federal lands. That provision has put the state at odds with the federal government, because the Alaska Supreme Court has ruled that the resource clause of the state constitution (see above) prohibits the state from allocating resources among Alaskans based on where they live. As a consequence, the federal government has taken over from the state management of subsistence activities on federal lands.

People

Many of us who will make decisions about how to move to a post-Prudhoe Bay era weren't here when oil started flowing through the pipeline, or when an earlier generation of Alaskans made decisions that created our unique Alaska institutions. Likewise, the next generation of Alaskans—those who grow up here and those who move here later—will bear the consequences of our decisions.

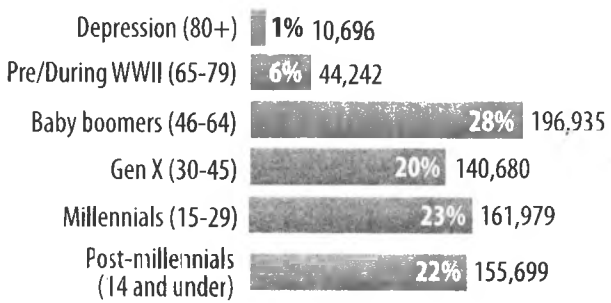
The U.S. census gives us some information about how succeeding generations of Alaskans have changed the composition of the population over time. We have become not only more numerous, but older, more urban, more stable, and more ethnically and culturally diverse, particularly among younger Alaskans.

But that snapshot tells us little about who we are, and nothing about what we think is most important for a post-Prudhoe Alaska. It is useful to think about the population divided into cohorts by age, as shown in Figure 4.

All generations are influenced by shared life experiences that shape their beliefs and behavior. Alaskans in the oldest cohorts remember the struggle for statehood and the tough times during the Great Depression and World War II that fostered self-reliance in the Last Frontier. Many of the baby-boom generation came here at the start of the Prudhoe Bay era and have seen the state move from modest means to unimaginable wealth. Many younger Alaskans have lived their entire lives as rentiers—people who live on income from property or investment—with the government providing public services paid for entirely from oil wealth they had no role in acquiring.

Decision-making today is largely in the hands of older Alaskans and will be influenced by their perceptions of what Alaska is and should be. But the Alaska of the future envisioned by the younger cohorts could be a very different place, and they should also have a voice in decisions. In deciding how to move into the future, we need to think not only about ourselves, but about keeping Alaska prosperous for those generations to come.

Figure 4. Alaskans by Generation, 2010
(Total Alaskans: 710, 231)



Source: U.S. Census, 2010

Conclusions

The transition to a post-Prudhoe economy is the biggest challenge Alaska will face in the next 10 years. Fortunately, Alaska has a lot of potential for developing and producing significant new petroleum resources. Also, if high oil prices and other factors hold, there's a possibility the state can collect many more billions in oil revenues before the conventional reserves on state lands are used up. Alaskans can come together and use these resources, against the background of our unique institutions, to forge a smooth and successful transition.

But any number of roadblocks could derail a smooth transition. We all have a natural tendency to avoid decisions that require sacrifice in the near term to achieve a longer term goal. Obvious challenges to planning for the future include not focusing on the problem, not believing it's urgent, not understanding the issues, and not trusting government to act in the interests of the average Alaskan. Also, wishful thinking could win out over analysis based on reality.

We hope this summary will be at least one step in the direction of overcoming these challenges and keeping Alaska on track for the coming decades.

Notes

1. For more on the economic role of oil in Alaska's economy, see Scott Goldsmith, "Oil Pumps Alaska's Economy to Twice the Size," *Understanding Alaska* Summary 17, Institute of Social and Economic Research, University of Alaska Anchorage, February 2011. For a detailed analysis of the historical relationship of the state and the oil industry, see Jerry McBeath, Matthew Berman, Jonathan Rosenberg, and Mary Ehrlander, *The Political Economy of Oil in Alaska*, Lynne Rienner Publishers, 2008.

2. For a discussion of the potential future role of financial assets in funding state government, see Scott Goldsmith, "How Much Should Alaska Save?" *Web Note* 7, Institute of Social and Economic Research, University of Alaska Anchorage, February 2011.

3. For an assessment of the economic importance of the state's scenic beauty and other parts of the ecosystem, see Steve Colt, "What's the Economic Importance of Alaska's Healthy Ecosystems?" *Research Summary* 61, Institute of Social and Economic Research, University of Alaska Anchorage, March 2001.

4. For perspective on the importance of Prudhoe Bay oil in Alaska's resource production history, see Terrence Cole and Pamela Cravez, "Blinded by Riches: the Prudhoe Bay Effect," *Understanding Alaska* Summary 3, Institute of Social and Economic Research, University of Alaska Anchorage, February 2004.

5. See Scott Goldsmith, "What Drives the Alaska Economy?" *Understanding Alaska* Summary 13, Institute of Social and Economic Research, University of Alaska Anchorage, December 2008.

6. For a description of how Alaska land ownership and management developed, see Teresa Hull and Linda Leask, "Dividing Alaska, 1867-2000," *Alaska Review of Social and Economic Conditions*, Institute of Social and Economic Research, University of Alaska Anchorage, November 2000.

7. To learn the history of Alaska's constitution, see Victor Fischer, *Alaska's Constitutional Convention*, University of Alaska Press, 1975.

8. For a detailed discussion of the resource clause and all other provisions of the state constitution, see Gordon Harrison, *Alaska's Constitution: A Citizen's Guide*, Fourth Edition, Alaska Legislative Affairs Agency, 2002.

The Author

Scott Goldsmith has studied the Alaska economy for more than 35 years; he is a professor of economics at ISER.

Who is ISER?

The Institute of Social and Economic Research is part of the College of Business and Public Policy at UAA. It was created through an act of the Alaska Legislature in 1961, and over the past 50 years ISER researchers have studied virtually all major public policy issues in Alaska. A central part of ISER's mission is helping Alaskans better understand their state and think about the issues it faces. Learn more about ISER at:

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Institute of Social and Economic Research
University of Alaska Anchorage
Web Notes

Revising the State Fiscal Plan to Account for Petroleum Wealth

by Scott Goldsmith

Web Note No. 9
May 2011

INTRODUCTION

In 2008 the Alaska Legislature passed and the governor signed into law a bill requiring the Office of Management and Budget (OMB) to prepare an annual state fiscal plan projecting state spending for 10 years and identifying the revenue sources to pay for that spending. One objective of the law was to get government and the general public thinking, discussing, and planning for the long-term fiscal health of the state in light of declining oil production.

These plans have not attracted the attention they deserve. In this Web Note we review the most recent fiscal year 2012 10-year plan and offer suggestions for improvement.

THE OMB FISCAL YEAR 2012 10-YEAR FISCAL PLAN

The fiscal plan consists of a number of scenarios, based on different assumptions about future petroleum revenues and the growth rate of General Fund spending. Each scenario tracks the BUDGET SURPLUS/SHORTFALL (difference between current revenues and expenditures) as well as TOTAL RESERVES (balance in the Constitutional and Statutory Budget Reserves). For example, "Scenario 3," depicted in the table and figure below, shows TOTAL RESERVES growing from $11.1 billion in FY11 to $19.6 billion in FY21, based on the Fall 2010 Alaska Department of Revenue forecast of General Fund revenues and a 6% growth rate in General Fund expenses.

Scenario 3: FY2012 Governor's Budget with 6% Annual Expenditure Growth

Oil Price & Production	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY20	FY21
Fall 2010 forecast ANS West Coast ($/bbl)	$77.96	$82.67	$87.86	$92.41	$97.34	$100.08	$102.90	$105.80	$108.78	$111.84	$114.99
Fall 2010 forecast production (million bbl/d)	0.616	0.622	0.642	0.629	0.608	0.623	0.607	0.582	0.551	0.520	0.496
Revenue vs. Spending ($millions)											
General Fund Revenues[1]	$5,452.2	$5,790.3	$6,207.7	$6,787.8	$7,233.1	$7,822.4	$7,992.7	$8,060.4	$7,945.7	$7,810.7	$7,424.1
General Fund Expenses	$5,403.6	$5,446.4	$5,773.2	$6,139.6	$6,486.7	$6,876.0	$7,288.6	$7,725.5	$8,189.4	$8,680.7	$9,201.6
Budget Surplus/Shortfall	**$48.6**	**$343.9**	**$434.5**	**$648.2**	**$746.4**	**$946.5**	**$704.2**	**$334.6**			
Reserve Balances ($millions)											
CBRF Main Account Balance End of Year	$5,126.1	$5,346.9	$5,576.3	$5,814.8	$6,082.3	$6,319.7	$6,587.1	$6,864.2	$7,153.7	$7,453.7	$7,765.4
CBRF Subaccount Balance End of Year	$4,890.7	$5,242.2	$5,618.9	$6,022.7	$6,455.5	$6,919.4	$7,416.7	$7,949.6	$8,520.9	$9,133.3	$9,789.8
CBRF Total	**$10,016.8**	**$10,589.0**	**$11,195.2**	**$11,837.5**	**$12,537.8**	**$13,239.1**	**$14,003.7**	**$14,813.8**	**$15,674.6**	**$16,587.0**	**$17,555.2**
Statutory Budget Reserve Balance	$1,048.6	$1,392.4	$1,827.0	$2,475.2	$3,221.5	$4,168.0	$4,872.2	$5,206.6	$4,563.1	$3,793.0	$2,015.5
TOTAL RESERVES	**$11,065.4**	**$11,981.5**	**$13,022.1**	**$14,312.5**	**$15,739.3**	**$17,407.1**	**$18,875.9**	**$20,021.4**	**$20,237.7**	**$20,380.0**	**$19,570.6**

1 FY 2011 and FY 2012 General Fund Revenue includes: Corporate Dividends, Reappropriations and Carry Forward

Appropriations projections in the plan do not represent a commitment by the Administration to propose spending or generate revenue at a particular level in FY2011, FY2012 or any future year. The 10 year forecast shows that unanticipated budget shortfalls during the 10-year period could be filled primarily through the use of reserve funds; however, other fiscal tools including spending reductions would likely be used in addition to, or in lieu of, reserve funds.

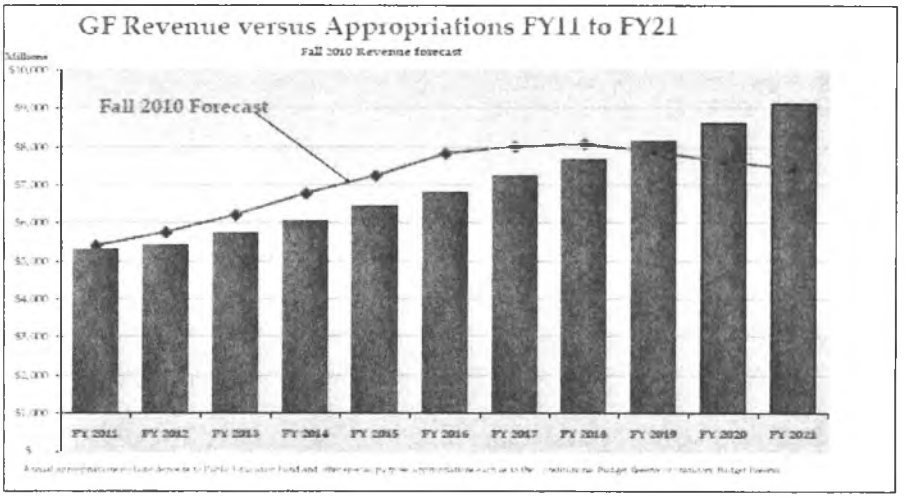
The plan will be revisited at conditions warrant.

This paper is part of ISER's *Investing for Alaska's Future* research initiative, funded by a grant from Northrim Bank.

Northrim Bank

Based on those assumptions, the state would enjoy a BUDGET SURPLUS through FY18, but growing annual expenses (the vertical bars below) would then begin to exceed revenues (solid line). An annual SHORTFALL would appear and start to grow.

Scenario 3: FY2012 Governor's Budget with 6% Annual Expenditure Growth



The BUDGET SHORTFALL occurs as soon as FY12 in the most pessimistic of the five fiscal plan scenarios but does not show up at all before FY21 in the two most optimistic of the scenarios (table below). The extreme sensitivity of state fiscal health to the growth rate of spending and future petroleum revenues is also illustrated by comparing TOTAL RESERVES in FY21 across the five scenarios. They vary from zero to $36.9 billion.

Table 1. Summary of 5 OMB Scenarios: BUDGET SHORTFALL and TOTAL RESERVES

Scenario	GF Revenues	GF Expenditure Growth Rate (Nominal $)[1]	Year of First BUDGET SHORTFALL	TOTAL RESERVES in 2021 (Billion$)
1	DOR Fall 2010	0%	-	$36.9
2	DOR Fall 2010	3%	-	$28.9
3	DOR Fall 2010	6%	2019	$19.6
4	$80 constant oil	3%	2013	$3.1
5	$70 constant oil	1%	2012	-

The state fiscal plan reflected in these scenarios is built on several elements:

- Contain growth in state spending
- Encourage oil and gas development to realize the projected revenue stream

[1] The fiscal plan is presented in nominal dollars and assumes inflation at 2.75% annually and population growth of 1% annually. So the General Fund expenditure growth rates in Scenarios 1 and 2 are negative or flat in inflation-adjusted dollars. This will be very difficult to achieve. For example, state Medicaid expenditures, one of the largest items in the budget, have been projected to grow at 8.9% annually. *See Long-Term Forecast of Medicaid Enrollment and Spending in Alaska: 2005-2025*, by the Lewin Group and ECONorthwest, 2006.

- Save all current account budget surpluses in the CBRF (Constitutional Budget Reserve) or other account
- Use accumulated surpluses to cover unanticipated revenue shortfalls or general fund expenses
- Continue Permanent Fund dividend appropriation using current formula[2]
- Reduce spending if accumulated surplus gets low or becomes depleted
- No new taxes

These plan elements are designed to ensure that public services can be provided, the economy can continue to prosper, and no fiscal burden will be passed on to the next generation of Alaskans in the form of new taxes or service cuts. But can it work?

If revenues are high and spending growth is slow, this plan should work for the next decade. And the higher than anticipated oil price in recent months has provided the state with an additional cushion to help ensure its success.

LOOKING BEYOND 10 YEARS

The problem with this approach is that petroleum revenues, which pay for at least 90% of General Fund spending, are non-sustainable. Eventually, even under the most optimistic assumptions, growing General Fund spending will overtake falling General Fund revenues from oil, the annual draw on reserves will increase, and TOTAL RESERVES will not only fall, they will disappear.

To avoid this problem, the fiscal plan suggests revenues from North Slope natural gas production after 2020 will be a "key element in providing for the future fiscal and economic stability of the state"[3] but there is no quantitative analysis to support that statement.

Let's extend OMB Scenario 3 for 10 years, out to FY32, and look at the results graphically. We assume General Fund spending (black line) continues to grow at 6% a year through FY32, nominal General Fund oil revenue after FY21 falls 5% annually (green area), and other revenues (red) grow 3% annually. The graph also shows spending from RESERVES (yellow). Gas revenues, based on an estimated wellhead value of $2 and the current tax structure, (blue) start in FY21. The projections are shown in inflation-adjusted dollars to allow comparisons of future and current values.[4]

We see that gas revenues reduce but are not large enough to eliminate the General Fund SHORTFALL. Gas revenues allow the size of the financial RESERVE to stay above $20 billion for several years, but eventually the force of growing expenditures and declining petroleum

[2] This element is not explicitly stated. Neither is the implied assumption that the Earnings Reserve of the Permanent Fund will not be available for appropriation for General Fund spending. In what follows we assume use of the Earnings Reserve to help fund the General Fund.

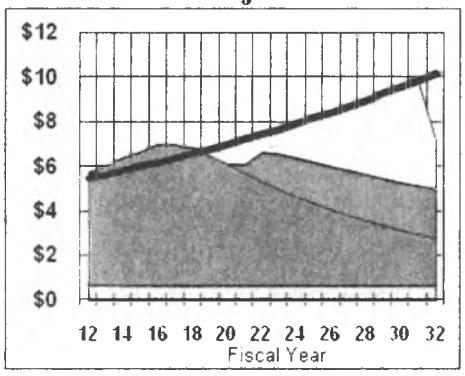
[3] OMB FY2012 10-Year Plan, Executive Summary, page 1.

[4] These projections are based on a simple spreadsheet model available from the author.

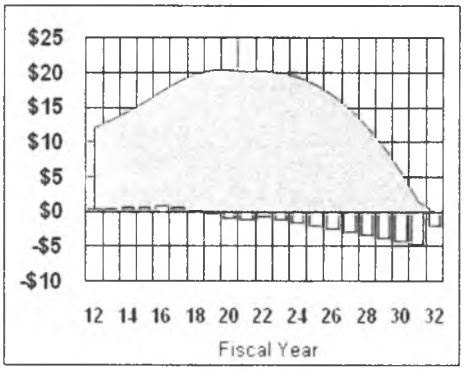
revenues leads to its rapid depletion through annual withdrawals (yellow). By FY32 the financial RESERVE is gone. By that time the annual SHORTFALL has grown to about $5 billion.

OMB FISCAL PLAN—EXTENDED (2012 Billion $)

GF Projection



Financial Reserve Balance



A SHORTFALL of $5 billion would not only devastate public spending—for education, health care, public safety, transportation, and other purposes—it would also have a ripple effect on the entire economy, resulting in a severe and long lasting recession. The prolonged recession of the mid-1980s demonstrated how sensitive the economy is to public spending and how every part of the economy suffers when government spending falls sharply.

The lesson from looking beyond this decade is that gas revenues could postpone depletion of petroleum revenues, but could not eliminate the underlying problem of non-sustainability and the fiscal gap.

DOWNSIDE RISK

What if the future does not look as the OMB Fiscal Plan describes?

The economic history of Alaska has been punctuated by pleasant surprises—like the discovery of oil at Prudhoe Bay, the oil price increase due to the Iran-Iraq war shortly after Prudhoe Bay production began, and the more recent positive oil price trend. But we need only remember the severe recession of the mid-1980s, brought about when Saudi Arabia increased oil production and drove down the price, to realize that unpleasant surprises also can and have happened.

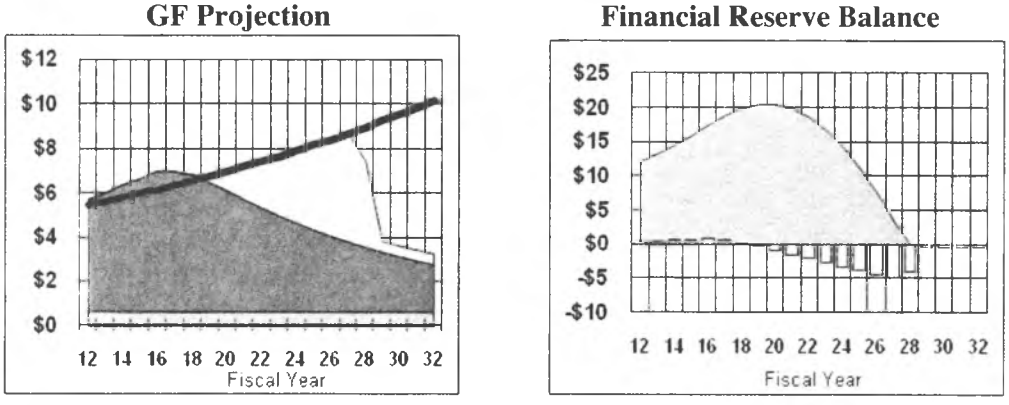
We should consider a broader range of different possible futures and how the fiscal plan would work under those conditions.

One possibility is that things will turn out better than anticipated in the OMB projection. Oil and gas revenues could end up higher than we expect. State spending could grow more slowly than projected. Under those circumstances, the reserve balance would grow more rapidly and we would be in the fortunate circumstance of having more money in the bank than expected. That outcome would be good in the near term, but with continued and growing dependence on a non-sustainable revenue source, the fiscal gap, when it appeared, could be even bigger than $5

billion. On the other hand, a delay or smaller revenues from gas commercialization; lower revenues from oil; or more rapid growth in General Fund expenditures could all have serious consequences for the fiscal future of the state within a few years.

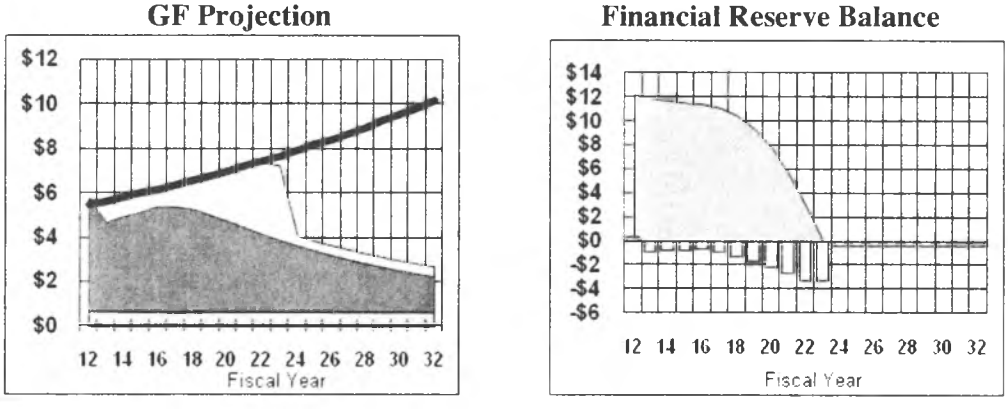
The next set of graphs shows what would happen if there were no revenues from gas. With declining General Fund oil revenues (green), the budget SHORTFALL that opens after FY18 grows and is filled using RESERVES (yellow) until they are gone in FY28. By that time the General Fund SHORTFALL has grown to more than $4 billion.[5]

OMB FISCAL PLAN—EXTENDED (2012 Billion $)
NO GASLINE



If oil revenues turn out to be 75% of the DOR Fall 2010 projection, the budget SHORTFALL begins immediately and the financial RESERVE is depleted in FY23.

OMB FISCAL PLAN—EXTENDED (2012 Billion $)
NO GASLINE
75% OF DOR OIL REVENUES



[5] Reserves used after FY28 shown in the graphs come from the portion of Permanent Fund earnings that are not used to pay the dividend or inflation proof the fund. That portion goes into the Earnings Reserve account of the Permanent Fund and is spent in the same year.

CLOSING THE FISCAL GAP

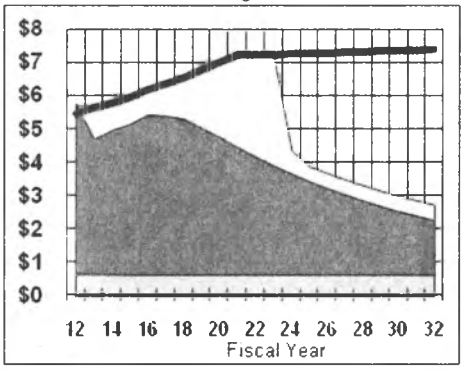
If commercialization of gas is delayed or oil revenues fall below current projections, we should be able to anticipate the need for corrective action to avoid huge budget SHORTFALLS. Three obvious possibilities are to cut spending, impose taxes, and divert the Permanent Fund dividend to the General Fund. Use of the Permanent Fund balance is a more drastic alternative.

a. Cut Spending

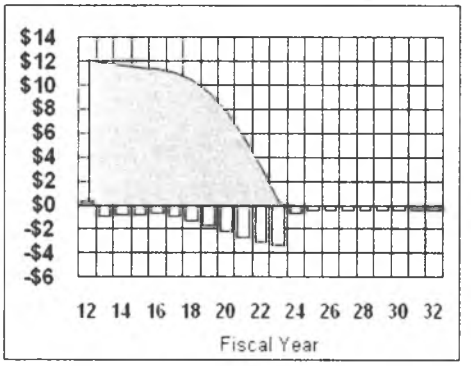
Holding General Fund spending (black line) constant in real terms after FY20 (3% annual growth) has little immediate effect, but it does marginally reduce the fiscal gap in later years.

OMB FISCAL PLAN—EXTENDED (2012 Billion $)
NO GASLINE
75% OF DOR OIL REVENUES
CUT SPENDING AFTER 2020

GF Projection



Financial Reserve Balance



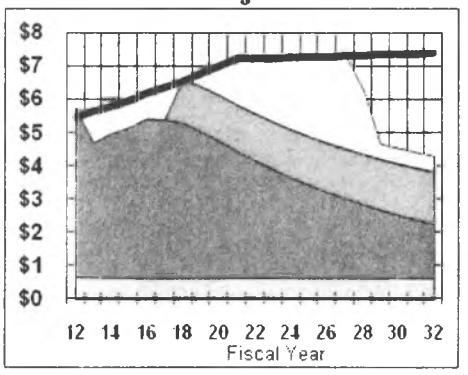
b. Personal Taxes

Alaska is the only state without either a state sales tax or personal income tax. Nationally, households contribute on average about 4% of their income to the operation of state government through a combination of these taxes. If Alaska households supported state government at the same rate as households in other states, personal tax collections would be about $1,800 per capita—4% of personal income. If these taxes were imposed (shown in purple on the graphs on the following page)[6] before the financial reserves were depleted, it would postpone the arrival of the fiscal gap and cut down its size. The political challenge with this strategy is to collect tax revenues at the same time that the RESERVE holds several billion dollars.

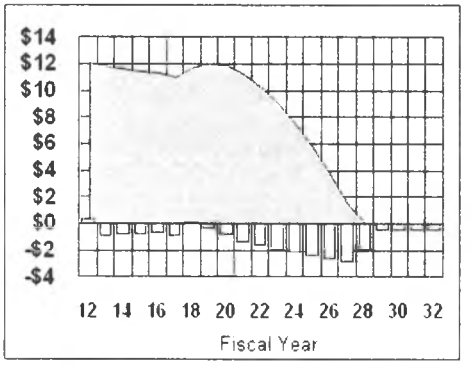
[6] The estimate is based on an analysis by the Urban Institute-Brookings Institution Tax Policy Center of data from the U.S. census. In 2007 tax revenue from state income and sales taxes averaged 4.25% of personal income for the U.S. as a whole. It ranged from a low of 2.33% in Texas to a high of 7.88% in Hawaii. Applying the U.S. average rate to 2008 Alaska personal income of $30 billion results in an estimate of about $1.3 billion in tax revenue. Sales tax revenue would be about $600 million, and the personal income tax revenue would be about $700 million.

OMB FISCAL PLAN—EXTENDED (2012 Billion $)
NO GASLINE
75% OF DOR OIL REVENUES
CUT SPENDING AFTER 2020
ADD PERSONAL TAXES IN 2018

GF Projection



Financial Reserve Balance

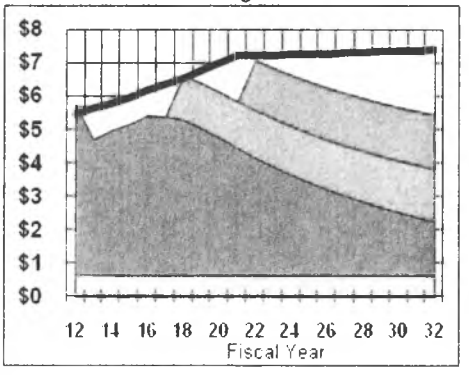


c. Divert the Permanent Fund Dividend to General Fund

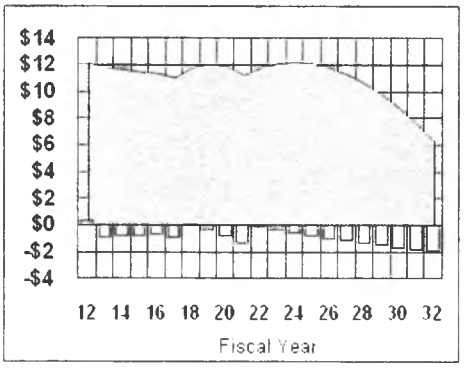
Diverting the entire dividend (red on the graph below) and adding personal tax revenues (purple) to cover General Fund spending would reduce the budget SHORTFALL and maintain the RESERVE (yellow) beyond FY32. But even in this case, after 20 years the RESERVE would soon be depleted because of the non-sustainability of the oil revenues.

OMB FISCAL PLAN—EXTENDED (2012 Billion $)
NO GASLINE
75% OF DOR OIL REVENUES
CUT SPENDING AFTER 2020
ADD PERSONAL TAXES IN 2018
DIVERT THE DIVIDEND TO THE GF IN 2022

GF Projection



Financial Reserve Balance



d. Cash Out the Permanent Fund
Using the Permanent Fund balance to fill the budget gap would work for a number of years, but like petroleum revenues, the fund is a non-sustainable revenue source and would not provide a permanent solution to the fiscal dilemma the state faces.

FISCAL BURDEN

Looking out 20 years forces us to confront the fiscal reality that the state continues to depend on non-renewable revenues to fund government and to support the state economy.

Sooner or later spending will outrun available revenues. When that happens Alaskans will have to make do with less and pay more for what they get. Either way Alaskans at that time will bear a FISCAL BURDEN compared to the current generation.

The only way to minimize that burden is to save more current revenues from non-renewable petroleum production, but how can we decide how much saving is enough?

WEALTH PRESERVATION: THE MAXIMUM SUSTAINABLE YIELD

If we are serious about being able to fund necessary public services in the future without imposing a FISCAL BURDEN on future generations, we should save enough out of current revenues from non-renewable sources to maintain the real per capita value of our wealth. But because current petroleum revenues fluctuate from year to year, it is easier to turn the question on its head and ask not how much we need to save, but rather how much we can afford to spend to maintain the per person value of our wealth.

To do that we need to know the size of our petroleum wealth, including both the financial assets derived from past petroleum revenues and the value of petroleum still in the ground—the present value of future petroleum revenues.

We estimate the state's petroleum wealth as of June 30, 2010 (the beginning of fiscal year 2011) to have a value of $126 billion[7]—$45 billion held as financial assets (Table 2) and $81 billion as the present value of revenues yet to be collected from future oil and gas production (Table 3). This estimate of future revenues relies primarily on the Fall 2010 Alaska Department of Revenue projection.

[7] See ISER Webnote No. 7, "*How Much Should Alaska Save*?" available at www.iser.uaa.alaska.edu for more detail on this method of determining petroleum wealth.

Table 2. State Financial Assets as of June 30, 2010 (Billion $)

TOTAL	$45	
Permanent Fund	$33.3	Alaska Permanent Fund Corporation, 2010 Annual Financial Report
Constitutional Budget Reserve	$8.7	Alaska Department of Revenue, Treasury Division, Combined Schedule of Invested Assets, June 30, 2010
Statutory Budget Reserve	$1	Alaska Department of Revenue, Tax Division, Revenue Sources, Fall 2009
General Fund	$2	Author estimate
Other	-	

Source: ISER Web Note 7, *How Much Should Alaska Save?*
Note: Cash in the General Fund is a rough measure of the share of the General Fund that is not in restricted accounts (of which the Statutory Budget Reserve is one) and is not necessary to meet the cash flow requirements of the state. For completeness we show an "Other" category, which would consist of other unrestricted financial assets that could be appropriated to support state spending.

Table 3. Present Value of State Petroleum Revenues Yet to be Collected (Billion $)

Total Petroleum	$81
Oil	$74
State Land—North Slope 2011-2020	$45
State Land—North Slope 2021+	$27
State Land—Other Locations	-
State Land—Heavy Oil	$1
Federal NPRA	-
Federal OCS	$1
Federal ANWR	-
Gas	$7

Source: ISER Web Note 7, *How Much Should Alaska Save?*
Author estimate, based largely on Alaska Department of Revenue projections. Future revenues discounted at 5% real. Includes royalties paid into Permanent Fund.

A wealth portfolio of $126 billion should be able to generate annual earnings, after inflation, of $6.3 billion if it can achieve a real rate of return of 5%—the target earnings for the Alaska Permanent Fund. With a stable state population, we could spend the entire earnings of $6.3 billion each year and still maintain the value of our wealth for future generations to share. But since the population is increasing about 1% annually, we would need to reinvest 1% of the earnings back into the portfolio in order to maintain per capita value. Then the wealth portfolio would be growing over time at the same rate as population.[8] After that reinvestment the MAXIMUM SUSTAINABLE YIELD from the portfolio would be $5.04 billion.[9] The calculation is shown in Table 4.

[8] This is a simple version of what is known to economists as the Hartwick rule.

[9] It could also be called the BENCHMARK DRAW.

Table 4. MAXIMUM SUSTAINABLE YIELD: FY 2011 (Billion $)

PETROLEUM WEALTH	$ 126
Real Earnings @ 5%	$ 6.30
Reinvest for Population Growth @ 1%	$ 1.26
MAXIMUM SUSTAINABLE YIELD	**$ 5.04**

Over time, the MAXIMUM SUSTAINABLE YIELD would need to grow with the population, keeping real per capita yield constant at the current level of $7,100, based on a population of 710 thousand.)

The MAXIMUM SUSTAINABLE YIELD is the annual amount that could be spent for all purposes—government programs and the Permanent Fund dividend—from the entire petroleum wealth portfolio, including current petroleum revenues and earnings on all financial assets.

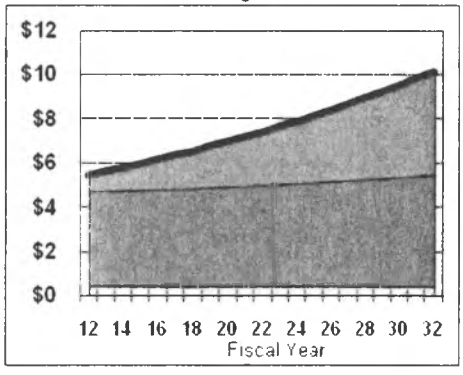
REVISING THE FISCAL PLAN TO TRACK WEALTH PRESERVATION

If we incorporated the objective of wealth preservation into the state fiscal plan, the sum of spending from three sources could not exceed the MAXIMUM SUSTAINABLE YIELD. These sources would be spending from the Permanent Fund, spending from other financial assets, and spending from current petroleum revenues. Revenues from recurring sources would fill any shortfall between total spending and the MAXIMUM SUSTAINABLE YIELD.

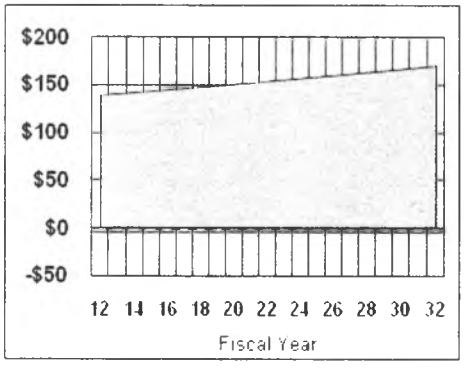
The fiscal plan would look like the next set of graphs, which assume 6% annual growth in General Fund spending (black line) and continuation of the current policies regarding the Permanent Fund and payment of the dividend. The MAXIMUM SUSTAINABLE YIELD remaining after paying the dividend becomes income to the General Fund, shown in green. The difference between current General Fund spending and revenue from the MAXIMUM SUSTAINABLE YIELD (blue area) must come from recurring revenue sources.[10]

REVISED OMB FISCAL PLAN (2012 Billion $)

GF Projection



Petroleum Wealth Balance



[10] The small red bar at the bottom is current non-petroleum General Fund revenue.

The entire petroleum wealth of the state is shown at the right; it includes all financial assets as well as the expected revenues from future petroleum production. The wealth grows over time through reinvestment of earnings at the same rate as population growth. The MAXIMUM SUSTAINABLE YIELD is the row of small yellow bars.

Adhering to this plan would ensure that petroleum wealth would be shared across generations and that the cost of spending on public programs above the MAXIMUM SUSTAINABLE YIELD level would be borne by those who benefit from that spending.[11]

MONITORING HOW WE'RE DOING

We can monitor how we're doing in meeting the objective of wealth preservation—without redoing the state fiscal plan—by comparing actual spending from wealth in the state fiscal plan to the MAXIMUM SUSTAINABLE YIELD level of spending. If we are spending more, then our wealth per capita is falling. If we are spending less, our wealth per capita is growing.

Table 5 shows estimated actual spending from petroleum wealth in FY12 to be about $6.1 billion. This consists of the General Fund oil revenues that will be spent, the General Fund investment earnings that will be spent, and the Permanent Fund Dividend.[12]

Table 5. FY2012 PROJECTED PETROLEUM WEALTH SPENDING (Billion $)

TOTAL	**$ 6.057**
GF Oil Revenues	$ 4.648
Minus: GF Oil Revenues Saved (Budget Surplus)	($ .094)
Plus: GF Investment Earnings	$ .183
General Fund	**$4.737**
Permanent Fund Dividend*	**$ 1.320**
Based on FY 2011 10-Year Fiscal Projection *Author Estimate for CY 2011 Distribution	

Estimated actual spending exceeds the MAXIMUM SUSTAINABLE YIELD by about $1.1 billion (Table 6). This is the amount by which our petroleum wealth is falling and also the amount of the FISCAL BURDEN passed on to future generations.

Table 6. Tracking FY2012 Wealth Preservation Performance (Billion $)

PROJECTED ACTUAL DRAW	$6.1
MAXIMUM SUSTAINABLE YIELD	$5.0
EROSION OF WEALTH	**$ 1.1**

Because of the erosion of wealth, the MAXIMUM SUSTAINANABLE YIELD would be smaller next year. The decline would be small, but if the annual draws continued to exceed the

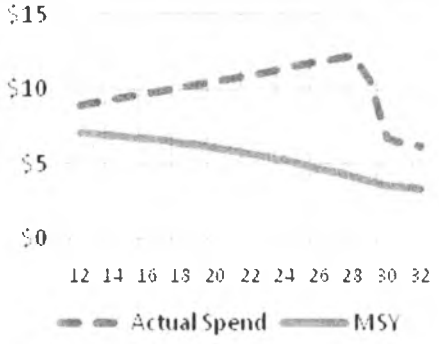
[11] In this way it is like the Norwegian fiscal model which consciously attempts to balance current and future generation needs.

[12] The actual draw will not be known until the end of the fiscal year.

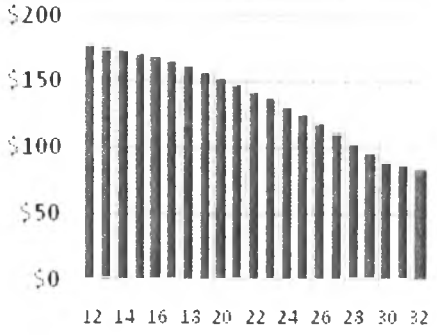
MAXIMUM SUSTAINABLE YIELD the erosion of wealth would continue at an increasing rate. This can be seen in the next two graphs. The first shows the diverging paths of real per capita spending (rising)[13] and real per capita MAXIMUM SUSTAINABLE YIELD (falling). The gap each year (left-hand graph) is the growing FISCAL BURDEN. The second graph shows real per capita petroleum wealth, declining over time.

FY2011 OMB 10-YEAR FISCAL PROJECTION (2012$)
MONITORING WEALTH PRESERVATION (Thousand $)

Actual vs MSY Spending Per Capita



Petroleum Wealth Per Capita



FACTORING IN UNCERTAINTY AND CHANGING CONDITIONS

The MAXIMUM SUSTAINABLE YIELD can only be a general guideline for sustainability, because it will constantly change due to new forecasts of future petroleum revenues,[14] variations in the rate of population growth, or changes in the discount rate. But because we have some idea of the range within which these variables are likely to fall, the idea of MAXIMUM SUSTAINABLE YIELD can still help inform state fiscal policy. Based on this knowledge we can estimate that the current range for the MAXIMUM SUSTAINABLE YIELD is about $1 billion below and $1 billion above the point estimate of $5 billion.

The next figure shows that MAXIMUM SUSTAINABLE YIELD is not particularly sensitive to variations in the estimate of future petroleum revenues. The sloping lines indicate MAXIMUM SUSTAINABLE YIELD for different levels of estimated future petroleum revenues and rates of population growth. The lowest line, based on population growth of 1% annually, shows that if petroleum revenues have a value of $81 billion—our current estimate—the MAXIMUM SUSTAINABLE YIELD is $5 billion. The value of future petroleum revenues would need to be more than $105 billion before the MAXIMUM SUSTAINABLE YIELD increased to $6 billion. That would still be less than current spending from petroleum wealth.[15]

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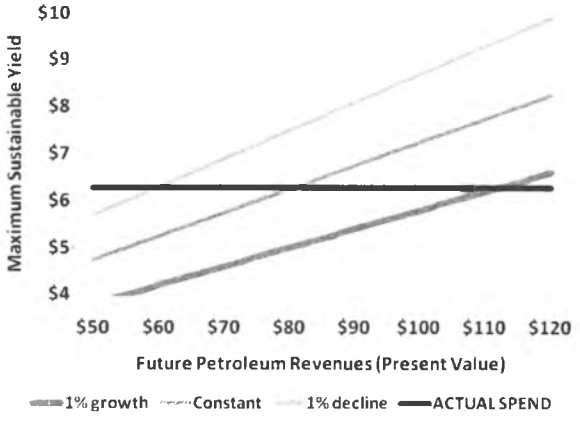
[13] The line drops off when the financial assets have all been spent.

[14] We know the exact value of petroleum wealth held as financial assets at any given time.

[15] For example, based on the current market value of the Permanent Fund and the Spring 2011 Department of Revenue forecast, our petroleum wealth portfolio would be about $136 billion, consisting of $50 billion in financial assets and $86 billion in petroleum revenues not yet collected. The MAXIMUM SUSTAINABLE YIELD from a portfolio with that value would be $5.4 billion. The large change in estimated value of the petroleum wealth portfolio has a small impact on the size of the MAXIMUM SUSTAINABLE YIELD.

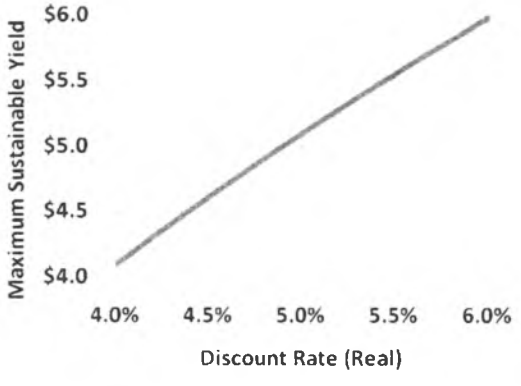
The other lines in the graph represent cases of zero population growth or negative population growth. MAXIMUM SUSTAINABLE YIELD would be significantly more if we think there will be fewer Alaskans in the future.

MAXIMUM SUSTAINABLE YIELD (2012) AS A FUNCTION OF PETROLEUM IN THE GROUND AND POPULATION GROWTH (BILLION $)



The next graph shows how the MAXIMUM SUSTAINABLE YIELD varies depending on the discount rate used to calculate the present value of future petroleum revenues and the rate of return on financial assets. At 5% the MAXIMUM SUSTAINABLE YIELD is $5 billion, but it is higher at higher discount rates and lower if the discount rate is lower.

MAXIMUM SUSTAINABLE YIELD (2012) AS A FUNCTION OF DISCOUNT RATE (REAL)



CONCLUSION

Alaska is blessed with tremendous public wealth—but because it comes from a non-sustainable source it creates special challenges for state fiscal policy. A successful plan requires that we recognize our obligation to future generations of Alaskans while at the same time providing for current needs. Although the future is sure to hold many surprises, we need to do our best to be prepared for them—both the bad and the good.

Institute of Social and Economic Research
University of Alaska Anchorage
Web Notes

How Much Should Alaska Save?

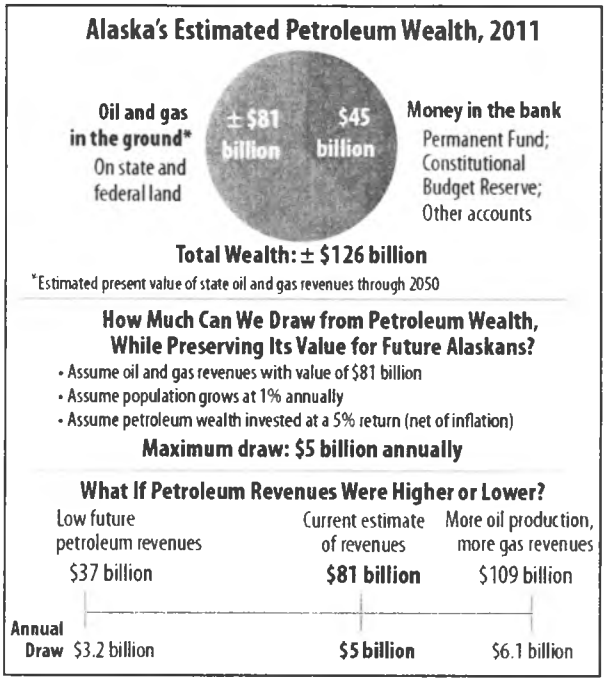
By Scott Goldsmith Web Note No. 7
February 2011

Summary

Alaska today is in the lucky position of having an estimated $126 billion in petroleum wealth—$45 billion in savings accounts derived from oil revenues, and $81 billion in future state revenues from oil and gas still in the ground--if current official state projections prove accurate.

Almost all state revenues come from oil, as they have for 30 years. But oil production is now only a third of what it once was, and analysts think that even with new discoveries and enhanced recovery, production from state lands will keep dropping. So Alaskans face a dilemma: how can we preserve this petroleum wealth for future generations, while still benefitting from it ourselves?

The answer is to limit how much we spend today from our petroleum wealth, and invest the savings in income generating assets. The income from those assets would grow over time and gradually replace declining petroleum revenues. We've already taken a major step, by depositing 24% of past oil revenues into savings accounts. Is that enough?



• *Alaska could draw up to $5.0 billion this year* and conserve its petroleum wealth at a constant value per resident. That assumes $81 billion in petroleum in the ground, state population growing at 1% a year, and annual income of 5% on state investments.

• *But the size of the wealth-preserving draw depends on actual future revenues*. It would be less if revenues projected by the Alaska Department of Revenue don't materialize, and more if production and prices are higher than currently expected. Because of this uncertainty, the level of the draw should take into account how much risk we feel comfortable with.

• *In the new fiscal year (FY2012), Alaska will draw about $5.5 billion* from petroleum wealth. The overdraw means we're eroding its value and putting a ***fiscal burden*** on future generations.

Keep in mind that how much Alaska can draw from its petroleum wealth (oil revenues and financial reserves) isn't the same as what the state can spend. But state spending above the draw from petroleum wealth should be funded by non-petroleum taxes and other revenues. Then the beneficiaries of that spending would be bearing the cost.

This research is part of ISER's *Investing for Alaska's Future* research initiative, funded by a grant from Northrim Bank.

Northrim Bank

I. Introduction

Virtually all of Alaska's state revenues come from oil, and since production is declining, we need to set some aside for future needs.[1]

The basic idea is simple. If some petroleum revenues are invested in productive assets like financial savings accounts, then income from those assets will grow over time and gradually replace declining petroleum revenues. In that way the non-sustainable petroleum tax base will be transformed into the sustainable tax base of a savings account. (See Appendix A for a simple arithmetic example of how this can work.)

Most Alaskans understand and support this idea, but it is hard to know HOW MUCH of current revenue to set aside. Future needs are unknown, and every dollar saved today means fewer dollars available to pay for the pressing needs we currently face.

Although Alaskans may never reach agreement about this tradeoff between current and future needs, we should not make the saving decision in a total vacuum and simply hope for the best. Rather, we should have some notion of a **target** —how much wealth we would like to have when we run out of petroleum, and a **rule** to guide our saving and spending decisions so that we can move towards that target.

II. The Target—Equal, Maximum, and Sustainable Benefits for All Alaskans

How much do we care about the well-being of future generations of Alaskans? As individuals many of us are likely to value our own current well-being over that of the next generation, for any number of personal reasons. We might expect to leave Alaska in the future, perhaps we have no children, or perhaps we feel the next generation should look out for themselves.

However, from the perspective of the state of Alaska, the next generation is important, and since future Alaskans are not yet here to speak for themselves, it falls to the state to look out for their interests. So when allocating public wealth, particularly from oil that belongs to all Alaskans, perhaps the state should show no favorites between current and future generations.

But equal treatment does not necessarily mean equal access to the oil wealth. For example, if we knew that the next generation of Alaskans would be twice as wealthy as we are, fairness might suggest that they should get a smaller share of the benefits of oil than we do. In that case we should use more of the oil revenues to meet current needs and save less.

But there is no guarantee than future generations of Alaskans will be better off than we are today. The current trend in the national economy suggests just the opposite might be the case. What is the likelihood that the next generation will be enjoying greater prosperity than us? No one can

[1] This is in addition to the need to set some aside for those "rainy days" when the oil price, and consequently revenues, takes a temporary dip. Unfortunately these price fluctuations have diverted our attention from the more fundamental problems discussed in this note.

answer that with confidence. But the neutral assumption seems to be that the next generation will be neither better nor worse off than we are.[2]

We also don't know how much wealth from our other natural resources will be available to the next generation. For example a dramatic increase in mining revenues could offset some of the fall in oil revenues, reducing the need to save.

But in the 50 years since Alaska became a state, revenues from our other natural resources have been insignificant compared to oil. It is safe to assume that the next generation will not be able to rely on state revenues from mining, seafood, timber, or tourism to replace those from petroleum in financing the state government. Since these other revenues are small compared with oil revenues, we can ignore them when deciding how much to save from oil revenues. (These other industries are of course important sources of jobs and income for Alaskans; we are referring here only to revenues the state derives from them.)

Because the Alaska population is growing, we need to decide whether equal treatment among generations means equal treatment for individuals. That seems reasonable, so the total benefit allotted to each generation would need to grow to maintain per capita equity across generations.

And finally, we need to decide how far into the future to look. Since the economic history of Alaska has always been based on resource development and there is little evidence that will change in the foreseeable future, we should conserve our wealth for all future generations of Alaskans.

If we value the well-being of individuals in future generations of Alaskans no more or no less than those in the current generation, if we have no strong reason to believe they will have higher incomes than current Alaskans, and if we think other natural resource wealth will remain about at its current level, then every Alaskan—current and future—should benefit equally from our petroleum wealth.[3]

That will happen, if our portfolio of petroleum wealth, no matter how it is held, grows at the same rate as population.[4] And that target gives us a rule: save enough each year so the portfolio of petroleum wealth grows at the same rate as the population.[5] Following this rule means that spending per person and petroleum wealth per person both remain constant over time, even after there are no more petroleum revenues to collect.

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[2] We are assuming no significant growth in public sector needs per capita in the future—a strong assumption given past experience. But if there are new future needs they should be paid by the future beneficiaries.

[3] This is somewhat like the idea of "Generational Accounting", a method employed in Norway, to measure how different generations pay for and benefit from public services.

[4] This also obviously requires we do not dissipate some of our wealth before we begin to save. Equal sharing of nothing is not an attractive alternative.

[5] If wealth and spending per person are to remain constant while petroleum revenues fluctuate from year to year, the rule cannot be a constant savings RATE. The AMOUNT of saving each year must be set at the level that keeps wealth and spending per person constant.

There are many other possible targets that we could adopt, such as constant real wealth, maintenance of wealth for a fixed number of years, etc. and reasonable Alaskans can disagree on what target is the most appropriate.[6] But this target of equal and sustainable wealth for all generations of Alaskans is a clear BENCHMARK against which to measure our actual savings behavior. [7]

III. Alaska's Main Assets

The state petroleum wealth is held in two forms—money in the bank and petroleum in the ground—which together have a value of roughly $126 billon today.

III. a. Money in the Bank

The combined value of the largest financial assets—the Permanent Fund, the Constitutional Budget Reserve (CBR), the Statutory Budget Reserve, and the available balance in the General Fund—is about $45 billion (Table 1).[8]

Table 1. State Financial Assets as of June 30, 2010 (Billion $)

TOTAL	$45	
Permanent Fund	$33.3	Alaska Permanent Fund Corporation, 2010 Annual Financial Report
Constitutional Budget Reserve	$8.7	Alaska Department of Revenue, Treasury Division, Combined Schedule of Invested Assets, June 30, 2010
Statutory Budget Reserve	$1	Alaska Department of Revenue, Tax Division, Revenue Sources, Fall 2009
General Fund	$2	Author estimate
Other	-	
Note: The general fund estimate is a very rough measure of the share of the general fund not in restricted accounts (of which the Statutory Budget Reserve is one) and not necessary to meet the cash flow requirements of the state. For completeness we show an "Other" category which would consist of other unrestricted financial assets that could be appropriated to support state spending.		

III. b. Petroleum in the Ground

The value to the state treasury of our other large asset—petroleum in the ground—depends on how much is ultimately produced, at what price, and under what fiscal terms. These factors will determine future petroleum revenues collected by the state.

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[6] It can be argued this is a "King Midas" approach to wealth management in that saving does not put petroleum wealth to work for the benefit of Alaskans, which usually means using savings to create jobs. However the sustainable flow of income generates a flow of benefits that is balanced between current and future generations whereas spending the wealth on job creation generally benefits only the current generation of Alaskans.

[7] An alternative strategy sometimes suggested is to save all petroleum revenues as they are received and spend only the earnings on the fund created from those revenues. This would result in growing spending over time which would favor future generations of Alaskans at the expense of current needs. This is essentially what has come to be known as the Cremo Plan.

[8] There are smaller unreserved balances in some other state accounts, which we exclude in order to keep the analysis simple.

The standard method for putting an economic value on a future stream of revenues is to calculate its present value. This is the amount someone would be willing to pay today for the right to receive those future revenues. For example, if revenues of $25 million, $20 million, $15 million, $10 million, and $5 million were expected in the next five years, and the discount rate was 5 percent, that revenue stream would have a present value of $67.05 million.

Present Value Example

End of Year	Annual Revenues	Discount Factor @ 5% Annually	Present Value of Revenues
Sum	**$ 75.00**		**$ 67.05**
1	$ 25.00	95.2%	$ 23.81
2	$ 20.00	90.7%	$ 18.14
3	$ 15.00	86.4%	$ 12.96
4	$ 10.00	82.3%	$ 8.23
5	$ 5.00	78.4%	$ 3.92

A person owning the asset that produces these annual revenues could hold onto it and collect the revenues as they are paid (Alternative 1) or sell the asset today (Alternative 2) for $67.05 million. The person would be indifferent between these two alternatives because in either case if the revenues were reinvested as received, the person would have $85.57 at the end of year 5.

Alternative 1. Invest Revenues as They Accrue

Year	Beginning Balance	Re-Investment Income	Annual Revenues	Ending Balance
1	$ -	$ -	$ 25.00	$ 25.00
2	$ 25.00	$ 1.25	$ 20.00	$ 46.25
3	$ 46.25	$ 2.31	$ 15.00	$ 63.56
4	$ 63.56	$ 3.18	$ 10.00	$ 76.74
5	$ 76.74	$ 3.84	$ 5.00	**$ 85.57**

Alternative 2. Take Net Present Value and Invest

Year	Beginning Balance	Re-Investment Income	Ending Balance
1	**$67.05**	$3.35	$70.40
2	$70.40	$3.52	$73.92
3	$73.92	$3.70	$77.62
4	$77.62	$3.88	$81.50
5	$81.50	$4.07	**$85.57**

Unfortunately, there is no long run comprehensive projection of future state petroleum revenues from which to calculate a net present value estimate of the value of petroleum in the ground.

The most widely used estimate of future oil revenues is the 10-year forecast the Alaska Department of Revenue (ADOR). Within the next decade almost all production will be oil from state-owned land on the North Slope between the Colville and Canning Rivers.[9] The most current projection forecasts nominal revenues for the period 2012 through 2020 to be $66 billion. Converted to net present value (using a 5% discount rate and a 2.75% inflation rate) this stream of future revenues has a value today of $45 billion (Appendix B.). In a world of perfect information and certainty, the state could sell this stream of future revenues today for that amount.

Looking further into the future, ADOR does estimate cumulative production of 5.3 billion barrels between FY2011 and FY2050.[10] Assuming a constant oil price and production decline rate of 5 % annually, we can estimate the revenue stream from North Slope state lands after 2020 and from it derive a $27 billion estimate of its present value (Appendix B). Thus the total net present value of oil revenues, primarily from state lands, is $72 billion ($45+$27).

Revenues from oil production from regions and reservoirs not included in the ADOR estimate (ANWR, some NPRA, OCS and heavy oil) cannot be easily forecast. Because production costs will generally be higher and the federal government will be taking a larger share of the revenues from most of this production, it is safe to assume that the per-barrel revenue from this oil will be less than current production on state land.

But in addition, because future revenues have a lower net present value than current revenues, estimates of the net present value of revenues from these regions will be small compared to those from state lands.[11] A rough estimate of the value of this oil in the ground is $2 billion, based on heavy oil production and modest OCS revenues (no sharing of federal royalties) with NPRA revenues included in the ADOR projection and no production from ANWR (Appendix C).

We assume commercialization of natural gas, but because of discounting, the net present value of gas revenues is also modest. Our estimate is based on the TransCanada AGIA application projection of revenues, but because it is several years old and the gas market has changed dramatically in the last few years, we adjust the net present value downward by 75%.

Adding these net present value amounts together, the total estimated value of state wealth in the form of petroleum in the ground is $81 billion with most of that wealth composed of near term production of oil on state lands.

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[9] Alaska Department of Revenue, Fall 2010 Revenue Sources Book, page 38 states...."We do not include any estimates for undiscovered oil ... We exclude from our estimates production from most of the known heavy or viscous oil deposits; in fact we consider none of the approximately 20 billion barrels from the giant Ugnu deposit.... We exclude 97% of the viscous/heavy oil from the large West Sak field, projecting roughly 331 million barrels recovery out of the roughly 10 billion barrels in place. We also exclude 93% of the heavy oil at Schrader Bluff, projecting roughly 131 million barrels recovery out of over 2 billion barrels in place... We exclude these resources, both known and unknown, in order to avoid speculation and to reduce the uncertainty typically associated with the commercialization, timing and magnitude of resource development. Accordingly, we believe that our current estimates of ultimately recovery from the North Slope are reasonable."

[10] Alaska Department of Revenue, Fall 2009 Revenue Sources Book, page 37.

[11] For example, at a discount rate of 8% (5% real return plus inflation at 3%) a dollar of revenue available in 10 years has a net present value of only 46 cents and if available in 20 years its net present value is 21 cents.

Table 2. Value for State Petroleum Wealth in the Ground in 2010 (Billion $)

Total	**$81**	
Oil	$74	
State Land—North Slope 2011-2020	$45	Alaska Department of Revenue
State Land—North Slope 2021+	$27	Author estimate
State Land—Other Locations	-	
State Land—Heavy Oil	$1	Author estimate
Federal NPRA	-	Included in ADOR forecast
Federal OCS	$1	Author estimate
Federal ANWR	-	Author estimate
Gas	$7	TransCanada AGIA Application adjusted by author
Includes projected general fund and permanent fund revenues.		

Unlike the value of our financial assets, which we know with certainty, any estimate of the value of petroleum wealth in the ground could be off by 100% or more. If our estimate turns out to be too high, we might not save enough for the future. If it is too low, we could save more than necessary to maintain equity with future generations. We discuss how to deal with this uncertainty below.

IV. Establishing a BENCHMARK -- The Wealth Preserving Draw

A portfolio of assets worth $126 billion consisting of $45 billion in the bank and $81 billion in the ground could generate annual income of $6.3 billion in perpetuity (2010$), assuming a 5% real rate of return. [12] But for our wealth to grow with population increasing 1% each year, we would need to reinvest $1.25 billion of that income to maintain constant real per capita wealth. Consequently the current --BENCHMARK—or wealth preserving draw in FY2012 would be $5.0 billion (about $7,200 per person)—4% of our wealth, or the real rate of earnings minus the population growth rate (Table 3).

Table 3. FY2012 Wealth-Preserving Draw Calculation (Billion $)

Petroleum Wealth (Billion $)	Annual Sustainable Income (Billion $)	Population Growth Rate	BENCHMARK--Wealth Preserving Draw		
			Rate	Amount (Billion $)	Per Capita Amount
$126	$6.3	1 %	4 %	**$5.00**	**$7,180**

If we draw and spend more than this BENCHMARK, the value of our assets will not keep up with population growth and future generations will bear a **fiscal burden** (measured as the loss in per capita wealth of future generations due to overspending today).

[12] This is the target return on the Permanent Fund. If our other financial assets were similarly invested, they could earn a similar rate of return. Here we assume they are invested like the Permanent Fund.

If we draw less than the wealth preserving amount, our wealth will increase, future earnings will be higher, and with more wealth, future generations will be better off than us.

V. Implementation of the Rule—Are We Saving Enough Today?

The actual draw on our wealth in FY 2012 is yet to be determined, but is likely to be more than $5.5 billion, about $.5 billion more than the wealth preserving level of $5.0 billion.[13] This draw will reduce our per-capita wealth.

Spending from our wealth will consist of petroleum general fund revenues not saved ($4.6 billion), fund earnings spent (.2 billion) and Permanent Fund dividends paid ($.75 billion).

Table 4. FY2012 Estimated State Draw from Assets—FY2012 (Billion $)

General Fund Spending	$5.28	Office of Management and Budget, June 2010 Fiscal Summary—FY 2011 Enacted—This is increased by 3% by author assumption to estimate FY2012 spending
Minus: Non-Petroleum Revenues—Collected and Spent	$.49	Alaska Department of Revenue, Revenue Sources, Fall 2010
Equals: GF Petroleum Wealth Spending	$4.79	
Petroleum Revenues Spent	$4.60	
Earnings on Reserves Spent	$ .20	
Plus: Permanent Fund Dividend Distributed	$. 75	Permanent Fund Corporation, Fall 2010 adjusted by author to estimate CY 2011 spending
Equals: Total Asset Draw	**$5.54**	

Because the $5.54 billion draw from wealth will exceed the BENCHMARK or wealth-preserving amount--$5.0 billion, the value of state wealth (oil in the ground plus cash in the bank) will decline between the beginning and end of FY2012, as will the BENCHMARK moving forward into the next year.[14]

Table 5. State Wealth: Change in Value, FY2012 (Billion $)

Start of FY 2012	$126
Non-Sustainable Draw on Wealth	$.5
End of FY 2012	$125.5
% change	-.4%

Table 6. Sustainable Draw: Change in Value, FY2012 (Billion $)

Start of FY 2012	$5.04
Spend out of Assets	$.02
End of FY 2012	$5.02
% change	-.4%

[13] The FY 2012 budget level will be determined during the spring of 2011.

[14] Because we assume no inflation over the year, these changes are in real dollars.

These reductions are small, but in a year when there was much talk of "saving a portion of our windfall," they should give us pause. The amount of savings is not enough to maintain our wealth.

VI. How Sensitive is the Wealth-Preserving Draw Rate to Future Petroleum Revenues?

We can easily measure the value of our financial assets, but more than half of our wealth is petroleum in the ground. What if future petroleum revenues turn out to be more or less than we expect today? How would that change the calculation of the wealth preserving draw, and how should we deal with that uncertainty?

Table 7 shows a few cases to demonstrate that the range of estimates of our wealth is wide, and that the draw varies directly with the wealth estimate.[15] The known value of our financial assets puts a floor beneath the range, but because of the uncertainty about future petroleum revenues, the wealth preserving draw could easily range upwards of $6 billion.[16] [17]

Table 7. Sensitivity of 2012 BENCHMARK to Wealth Estimate

				Estimate in this Note			
WEALTH (billion $)	**$ 82**	**$ 97**	**$ 113**	**$ 126**	**$ 133**	**$ 147**	**$ 154**
FINANCIAL ASSETS	$ 45	$ 45	$ 45	**$ 45**	$ 45	$ 45	$ 45
PETROLEUM ASSETS	$ 37	$ 52	$ 68	**$ 81**	$ 88	$ 102	$ 109
State Land North Slope 2012-2020	$ 22-	$ 22	$ 45	**$ 45**	$ 45	$ 45	$45
State Land North Slope 2021-2050	$ 14	$ 27	$ 14	**$ 27**	$ 27	$ 27	$ 27
State Land Heavy Oil	0	$ 1	$ 1	**$ 1**	$ 1	$ 1	$ 1
NPRA	0	0	0	**0**	0	0	0
ANWR	0	0	0	**0**	0	0	$ 7
OCS	0	$-1	$ 1	**$ 1**	$ 1	$ 1	$ 1
Gas	0	0	$ 7	**$ 7**	$ 14	$ 28	$ 28
BENCHMARK @ 4%	**$ 3.26**	**$ 3.88**	**$ 4.50**	**$ 5.04**	**$5.32**	**$ 5.88**	**$ 6.16**

Given this uncertainty we need to consider what happens if the draw rate is set wrong. If we draw too much, we run down our wealth. If we draw too little, we end up with more wealth as time goes by. Either is unfair, if we're attempting to keep benefits equal between current and future Alaskans.

[15] The value of petroleum in the ground is also sensitive to the discount rate used to calculate present value.

[16] Limiting the time horizon—for example if our target were to cash out the asset in 50 years—would increase the draw.

[17] Increasing the population growth rate would reduce the draw for any given level of wealth.

The state should "hedge its bets" to increase the likelihood of not running out of its petroleum wealth too soon, by trying to draw somewhat less than the "best guess" amount. But just how much less is impossible to say.[18]

VII. Should Investment Count as Savings?

We have used the example of a financial account to illustrate the question of how much to save to preserve our wealth. But accumulating physical assets and human capital are also essential for a strong economy, and both generate benefits for Alaskans. Alaska is certainly richer today for the roads, airports, schools, and other public infrastructure that oil revenues have paid for. And spending on educational and health facilities have improved the quality of human capital.

We should count the spending of petroleum revenues on physical assets and human capital as investments that preserve wealth if they produce a sustainable flow of benefits valued as highly as the return on money in the bank. In fact this flow of money is the "opportunity cost" against which that spending should be compared (because that flow of money can be used directly to purchase benefits).

Unfortunately, public spending on physical assets or human capital is rarely subjected to a rigorous analysis of its benefits or comparison to its opportunity cost. If it were, much of it would come up short compared to its opportunity cost, and have to be classified as spending rather than investment.

Ideally, we should calculate how much wealth we have accumulated from investing in physical infrastructure and human capital development. This would provide a more complete picture of our current wealth when added to the value of oil in the ground and money in the bank.

But if we included physical infrastructure and human assets of the state in the wealth account, we would also need to allocate a share of the BENCHMARK spending each year to the preservation of those assets through expenditures on maintenance and replacement. This spending to maintain that part of our wealth portfolio would reduce the amount available for other purposes.

VIII. How Does Debt Influence the Calculation?

Debt financing of capital projects serves a useful function. It spreads payment for a project over its useful life. In that way, the direct beneficiaries of the project pay for it.

A portion of the BENCHMARK--wealth-preserving draw--could be used for debt service payments on capital projects financed by bonds, but borrowing would not change calculation of the size of the draw.

In some circumstances the interest rate on bonds might be less than the return on state financial investments, making it attractive to engage in "arbitrage"—borrowing at a low interest rate and investing the proceeds at a higher rate. If successful, this strategy would increase the total return on state wealth and therefore the size of the wealth-preserving draw.

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[18] Using the "best guess" estimate of a wealth preserving draw means there is about a 50% chance of setting the draw too low, but also a 50% chance of setting it too high. "Hedging your bet" means setting it at a level that reduces below 50% the chance of it being too high.

IX. Have We Preserved our Wealth from North Slope Oil?

From FY1978 (when North Slope production began) through FY2010 the State of Alaska has collected $156 billion (in 2010 dollars) in oil revenues. That includes all taxes and royalties paid into the Permanent Fund, the Constitutional Budget Reserve, and the general fund (which includes the statutory budget reserve). Of that total, about $37 billion (24%) has been put into our various financial savings accounts—either through required or special contributions.

Has this saving been sufficient to preserve our wealth?

Based on actual revenues collected, expected revenues yet to be collected (Table 2), and a projected annual population growth rate of 1%, we appear to have done a pretty good job of preserving our wealth for both the current and future generations.

Prudhoe Bay wealth in 1978, in the form of future petroleum revenues (assuming the current projection of yet to be collected revenues is accurate), had a net present value of $88 billion (2010 $). Based on actual population growth, that could sustain a maximum annual draw of $7,180 per capita (2010$). If the state had adopted a BENCHMARK based on that amount, we would have accumulated $48 billion in financial assets today and our current portfolio would have a value of $127 billion. Since our estimate of actual wealth today is $126 billion, we appear to be on track (Appendix D.).

But in 1978 no one had put a dollar value on our petroleum wealth, and if they had, the estimate would have been much lower than $88 billion. No one expected the future price of oil to come anywhere close to $100, and ultimate production was not expected to exceed 10 billion barrels. (Cumulative North Slope oil production has recently passed the 16 billion barrel mark.)

So our apparent success at wealth preservation has been largely due to good luck. We appear to be on track today because prices, production, and oil revenues have all been higher than we anticipated. Of course if future revenues turn out to be less than we expect today, we will fall off the wealth preserving path.

X. Tracking Our Performance

As part of the annual state government budgeting process, we should keep track of our entire portfolio of wealth. If our goal is to preserve our wealth to share with future generations, we should then limit the annual draw from that wealth (use of current oil revenues and spending from financial reserves, including the Permanent Fund) to the BENCHMARK amount.

Spending above the BENCHMARK should be paid for with other taxes and revenues. In that way each generation would share equally in the benefits of our wealth and share equitably the responsibility of paying for the public services it enjoys.

Further Reading

Investing for Sustainability: The Management of Mineral Wealth, by Rognvaldur Hannesson (Norwegian School of Economics and Business Administration), Kluwer Academic Publishers, Boston, 2001.

"Living on Borrowed Time: Alberta at the Crossroads," by Ronald Kneebone et al., Institute for Advanced Policy Research at the University of Calgary, Policy Brief #0401, 2004.

"Resource Revenues and Fiscal Sustainability in Alberta," by Leslie Shiell and Colin Busby, University of Ottawa, Department of Economics #0807E, 2008.

Appendix A: The Mechanics of Wealth Preservation: A Simple Example

Table A. shows how a stream of petroleum revenues can be converted into a permanent financial asset that grows in value with the population. Initially the only asset is the future stream of petroleum revenues with a net present value of $227.8 million, using a 5% discount rate. At a 5% real rate of return an asset of that size can generate income of $11.4 million. If population (starting at 100 thousand) grows at 1% per year, $9.1 million of that income could be spent (with $2.1 million reinvested) and total wealth would increase at the same 1% rate as population. This would keep wealth per capita constant at $2,278. Each year both the asset and its income would grow 1% so the draw can also grow by 1%. The draw per capita would stay constant at $90.20 (Figure A.1). (Inflation is assumed to be zero to keep the example simple.)

In the first year, the state collects revenues of $50 million, which it allocates 82% ($40.9 million) to savings in a fund of financial assets and the remainder—$9.1 million—to the draw which it spends . At the start of the second year the net present value of the remaining stream of petroleum revenues has fallen to $189.2 million, but the decline has been offset by the $40.9 million in the financial account. Total assets have increased in value by 1%, to $230.1 million (Figure A.2).

In the second year, $45 million in revenue is collected, the draw is now $9.2 million, and the rest of the revenue, $35.8 million, is added to the $40.9 million in the financial account. This generates earnings at 5%, so at the end of the year the state has assets of $232.4 million—consisting of $153.7 million worth of oil in the ground and $78.7 million in the financial account.

In the early years, the draw for spending comes from a portion of petroleum revenues. Saving consists of the remainder of petroleum revenues, deposited into the fund, and all the earnings of the fund, which are reinvested. Over time the savings rate (share of petroleum revenues deposited in the fund) falls as a larger portion is required for the draw.[19]

Starting in year 10, funding the draw begins to transition to the earnings of the fund, and in year 11, the entire draw comes from the earnings of the fund, which has an ending balance of $251.7 million when the flow of petroleum revenues ends.

From that time forward the draw comes entirely from fund earnings. The fund and earnings continue to grow to maintain constant per capita levels.

[19] If during this time part of the draw comes from the financial assets, then saving from current petroleum revenues must be greater by an equal amount. Column D in the table is actually the net savings that must occur, regardless of its source.

Table A. Transforming Petroleum Revenues into a Permanent Asset: Example (Million 2010$)

End of Year	Petroleum Revenues (A)	Present Value of Future Petroleum Revenues (B)	Actual Draw = BENCHMARK (C)	Petroleum Revenue Savings* (D=A-C)	Financial Fund Balance (E)	Sum of Assets (B+E)	Saving Ratio (D/A)	Pop (Thou)	Assets per Person (dollars)	Draw per Person (dollars)
		$227.8			**$0.0**	$227.8		100.0		
1	$50.0	$189.2	**$9.1**	$40.9	$40.9	$230.1	82%	101.0	$ 2,278	$ 90.2
2	$45.0	$153.7	$9.2	$35.8	$78.7	$232.4	80%	102.0	$ 2,278	$ 90.2
3	$40.0	$121.4	$9.3	$30.7	$113.4	$234.7	77%	103.0	$ 2,278	$ 90.2
4	$35.0	$92.4	$9.4	$25.6	$144.6	$237.1	73%	104.1	$ 2,278	$ 90.2
5	$30.0	$67.1	$9.5	$20.5	$172.4	$239.4	68%	105.1	$ 2,278	$ 90.2
6	$25.0	$45.4	$9.6	$15.4	$196.4	$241.8	62%	106.2	$ 2,278	$ 90.2
7	$20.0	$27.7	$9.7	$10.3	$216.6	$244.3	52%	107.2	$ 2,278	$ 90.2
8	$15.0	$14.1	$9.8	$5.2	$232.6	$246.7	35%	108.3	$ 2,278	$ 90.2
9	$10.0	$4.8	$9.9	$0.1	$244.4	$249.2		109.4	$ 2,278	$ 90.2
10	$5.0		$10.0		**$251.7**	$251.7		110.5	$ 2,278	$ 90.2
11	$0.0		$10.1		$254.2	$254.2		111.6	$ 2,278	$ 90.2
12	$0.0		$10.2		$256.7	$256.7		112.7	$ 2,278	$ 90.2
13	$0.0		$10.3		$259.3	$259.3		113.8	$ 2,278	$ 90.2
Sum	$275.0			$184.5						

5% Discount rate

1% Population Growth Rate

* Petroleum revenue savings is deposited into Fund.

Figure A.1. Draw Per Person (Thousand 2010$)

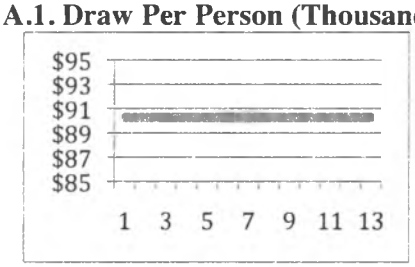
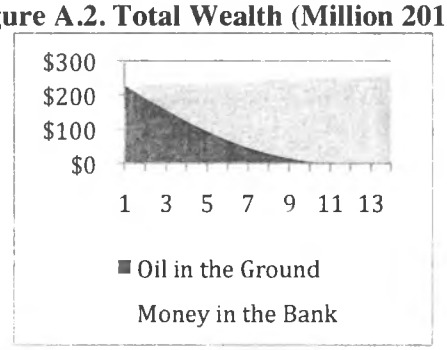


Figure A.2. Total Wealth (Million 2010$)



Appendix B. Present Value of North Slope Petroleum Revenues from State Lands (Million 2010 $)

Fiscal Yr	Wellhead Oil Price (WTI Nominal)	NS Production in Barrels per day (000)	NS Production in Barrels per year (million)	Revenues ($ million nominal) Unrestricted	Restricted	Total	Revenues per barrel	Inflation Discount Factor to 2010 $	Revenues (2010 $)
2010	$ 69	644	235	$ 4,915	$ 1,281	$ 6,196	$ 26	1.000	$ 6,196
2011	$ 72	616	225	$ 4,674	$ 689	$ 5,363	$ 24	0.973	$ 5,219
2012	$ 76	622	227	$ 5,061	$ 775	$ 5,836	$ 26	0.947	$ 5,528
2013	$ 82	642	234	$ 5,513	$ 815	$ 6,328	$ 27	0.922	$ 5,833
2014	$ 86	629	230	$ 6,068	$ 846	$ 6,914	$ 30	0.897	$ 6,203
2015	$ 91	608	222	$ 6,520	$ 855	$ 7,375	$ 33	0.873	$ 6,440
2016	$ 93	623	227	$ 7,092	$ 845	$ 7,937	$ 35	0.850	$ 6,745
2017	$ 96	607	222	$ 7,251	$ 820	$ 8,071	$ 36	0.827	$ 6,675
2018	$ 98	582	212	$ 7,308	$ 798	$ 8,106	$ 38	0.805	$ 6,525
2019	$ 101	551	201	$ 7,044	$ 769	$ 7,813	$ 39	0.783	$ 6,120
2020	$ 104	520	190	$ 6,798	$ 740	$ 7,373	$ 39	0.762	$ 5,621
2021		*494*	180		$ -	$ *7,005*		0.742	$ 5,197
2022		*469*	171		$ -	$ *6,655*		0.722	$ 4,805
2023		*446*	163		$ -	$ *6,322*		0.703	$ 4,443
2024		*424*	155		$ -	$ *6,006*		0.684	$ 4,108
2025		*402*	147		$ -	$ *5,705*		0.666	$ 3,798
2026		*382*	140		$ -	$ *5,420*		0.648	$ 3,512
2027		*363*	133		$ -	$ *5,149*		0.631	$ 3,247
2028		*345*	126		$ -	$ *4,892*		0.614	$ 3,002
2029		*328*	120		$ -	$ *4,647*		0.597	$ 2,775
2030		*311*	114		$ -	$ *4,415*		0.581	$ 2,566
2031		*296*	108		$ -	$ *4,194*		0.566	$ 2,373
2032		*281*	103		$ -	$ *3,984*		0.551	$ 2,194
2033		*267*	97		$ -	$ *3,785*		0.536	$ 2,028
2034		*254*	93		$ -	$ *3,596*		0.521	$ 1,875
2035		*241*	88		$ -	$ *3,416*		0.508	$ 1,734
2036		*229*	84		$ -	$ *3,245*		0.494	$ 1,603
2037		*217*	79		$ -	$ *3,083*		0.481	$ 1,482
2038		*207*	75		$ -	$ *2,929*		0.468	$ 1,370
2039		*196*	72		$ -	$ *2,782*		0.455	$ 1,267
2040		*186*	68		$ -	$ *2,643*		0.443	$ 1,171
2041		*177*	65		$ -	$ *2,511*		0.431	$ 1,083
2042		*168*	61		$ -	$ *2,386*		0.420	$ 1,001
2043		*160*	58		$ -	$ *2,266*		0.409	$ 926
2044		*152*	55		$ -	$ *2,153*		0.398	$ 856
2045		*144*	53		$ -	$ *2,045*		0.387	$ 791
2046		*137*	50		$ -	$ *1,943*		0.377	$ 732
2047		*130*	48		$ -	$ *1,846*		0.366	$ 677
2048		*124*	45		$ -	$ *1,754*		0.357	$ 625
2049		*117*	43		$ -	$ *1,666*		0.347	$ 578
2050		*112*	41		$ -	$ *1,583*		0.338	$ 535
TOTAL 2012 + (Million)		**4,797**				**$ *175,779***			**$118,044**
TOTAL 2012-2020 (Million)		**1,965**		**$ 58,655**	**$ 7,263**	**$ 65,753**			**$ 55,690**
TOTAL 2021-2050 (Million)						**$ 110,025**			**$ 62,354**
NPV 2012+ (Billion)						**$73**			
NPV 2012-2020 (Billion)						**$45**			
NPV 2021+ (Billion)						**$27**			

5% production decline rate from 2020
5% real discount rate
2.75% inflation rate

Source: Alaska Department of Revenue, Revenue Sources, Fall 2010, and ISER.

Appendix C. Present Value of Revenues from New Petroleum (Million 2010 $)

BASE CASE used in this paper includes gasline (25% of TransCanada), OCS, and Heavy Oil.

Fiscal Yr	Gas-Line	OCS	Heavy Oil	ANWR	NPRA	Total Other Revenues (2010 Million $)	BASE CASE Total Other Revenues (2010 Million $)
2010							
2011	$ -	$ -	$ -	$ -	$ -	$ 0	$ 0
2012	$ -	$ -	$ -	$ -	$ -	$ 0	$ 0
2013	$ -	$ -	$ -	$ -	$ -	$ 0	$ 0
2014	$ -	$ -	$ -	$ -	$ -	$ 0	$ 0
2015	$ -	$ -	$ 87	$ -	$ 87	$ 175	$ 87
2016	$ -	$ -	$ 87	$ -	$ 87	$ 175	$ 87
2017	$ -	$ -	$ 87	$ -	$ 87	$ 175	$ 87
2018	$ -	$ -	$ 87	$ -	$ 87	$ 175	$ 87
2019	$ -	$ -	$ 87	$ -	$ 87	$ 175	$ 87
2020	$ 1,997	$ -	$ 87	$ -	$ 87	$ 2,171	$ 586
2021	$ 1,980	$ -	$ 87	$ -	$ 87	$ 2,155	$ 582
2022	$ 2,095	$ -	$ 87	$ 1,444	$ 87	$ 3,714	$ 611
2023	$ 2,134	$ -	$ 87	$ 1,444	$ 87	$ 3,753	$ 621
2024	$ 2,286	$ -	$ 87	$ 1,444	$ 87	$ 3,905	$ 659
2025	$ 2,436	$ 166	$ 87	$ 1,444	$ 87	$ 4,221	$ 863
2026	$ 2,608	$ 166	$ 87	$ 1,444	$ 87	$ 4,393	$ 906
2027	$ 2,644	$ 166	$ 87	$ 1,444	$ 87	$ 4,430	$ 915
2028	$ 2,709	$ 166	$ 87	$ 1,444	$ 87	$ 4,494	$ 931
2029	$ 2,823	$ 166	$ 87	$ 1,444	$ 87	$ 4,608	$ 959
2030	$ 2,975	$ 166	$ 87	$ 1,444	$ 87	$ 4,760	$ 997
2031	$ 3,093	$ 166	$ 87	$ 1,444	$ 87	$ 4,879	$ 1,027
2032	$ 3,167	$ 166	$ 87	$ 1,444	$ 87	$ 4,953	$ 1,046
2033	$ 3,154	$ 166	$ 87	$ 1,444	$ 87	$ 4,940	$ 1,042
2034	$ 3,139	$ 166	$ 87	$ 1,444	$ 87	$ 4,924	$ 1,038
2035	$ 3,121	$ 166	$ 87	$ 1,444	$ 87	$ 4,907	$ 1,034
2036	$ 3,102	$ 166	$ 87	$ 1,444	$ 87	$ 4,887	$ 1,029
2037	$ 3,080	$ 166	$ 87	$ 1,444	$ 87	$ 4,866	$ 1,024
2038	$ 3,056	$ 166	$ 87	$ 1,444	$ 87	$ 4,842	$ 1,018
2039	$ 3,031	$ 166	$ 87	$ 1,444	$ 87	$ 4,816	$ 1,011
2040	$ 3,002	$ 166	$ 87	$ 1,444	$ 87	$ 4,788	$ 1,004
2041	$ 2,971	$ 166	$ 87	$ 1,444	$ 87	$ 4,756	$ 997
2042	$ 2,937	$ 166	$ 87	$ 1,444	$ 87	$ 4,723	$ 988
2043	$ 2,900	$ 166	$ 87	$ 1,444	$ 87	$ 4,685	$ 979
2044	$ 2,859	$ 166	$ 87	$ 1,444	$ 87	$ 4,645	$ 969
2045	$ 2,819	$ 166	$ 87	$ 1,444	$ 87	$ 4,605	$ 959
2046	$ 2,780	$ 166	$ 87	$ 1,444	$ 87	$ 4,565	$ 949
2047	$ 2,741	$ 166	$ 87	$ 1,444	$ 87	$ 4,526	$ 939
2048	$ 2,702	$ 166	$ 87	$ 1,444	$ 87	$ 4,488	$ 929
2049	$ 2,665	$ 166	$ 87	$ 1,444	$ 87	$ 4,450	$ 920
2050	$ 2,627	$ 166	$ 87	$ 1,444	$ 87	$ 4,413	$ 911
SUM	**$ 85,634**	**$ 4,327**	**$ 3,143**	**$ 41,884**	**$ 3,143**	**$ 138,132**	**$ 28,879**
NPV (Billion)	**$28**	**$1**	**$1**	**$13**	**$1**	**$45**	**$10**

Initial nominal value for estimates are $250 million for OCS, $100 million for heavy oil, $2,000 million for ANWR, and $100 million for NPRA.

Appendix D. Saving History and Future Potential

This table shows that in 1978 the wealth preserving draw was $7,180 per person (2010$), based on actual historical oil revenues and population combined with projected oil revenues (Table 2 in the text) and population growth of 1% annually.

At that level of draw each year we would have financial savings of $48 billion today (assuming a 5% real rate of return on investment), slightly more than actual financial savings of $45 billion.

End of Year	Petroleum Revenues (A)	Present Value of Future Petroleum Revenues (B)	BENCHMARK DRAW RATE = Actual Draw (C)	Petroleum Revenue Savings* (D=A-C)	Financial Fund Balance (E)	Sum of Assets (B+E)	Saving Ratio (D/A)	Pop	Assets/Pop (Thousand 2009$)	Real Per Capita Draw
		$87.7			**$0.0**	**$87.7**				
1978	$1.3	$90.8	**$2.96**			$89.1	-126%	412	$ 216	$ 7.18
1979	$2.2	$93.1	$3.0			$90.6	-35%	414	$ 219	$ 7.18
1980	$5.8	$92.0	$3.0	$2.8	$0.1	$92.1	48%	420	$ 219	$ 7.18
1981	$7.6	$88.9	$3.1	$4.5	$4.6	$93.6	59%	435	$ 215	$ 7.18
1982	$7.8	$85.6	$3.3	$4.4	$9.3	$94.9	57%	465	$ 204	$ 7.18
1983	$6.7	$83.2	$3.6	$3.1	$12.9	$96.1	46%	500	$ 192	$ 7.18
1984	$6.0	$81.3	$3.8	$2.3	$15.8	$97.1	37%	525	$ 185	$ 7.18
1985	$5.6	$79.8	$3.9	$1.7	$18.3	$98.1	31%	544	$ 180	$ 7.18
1986	$5.3	$78.4	$4.0	$1.4	$20.6	$99.0	25%	551	$ 180	$ 7.18
1987	$2.8	$79.6	$3.9		$20.5	$100.1	-40%	542	$ 185	$ 7.18
1988	$4.2	$79.4	$3.8	$0.3	$21.9	$101.2	8%	536	$ 189	$ 7.18
1989	$3.6	$79.8	$3.9		$22.6	$102.4	-9%	539	$ 190	$ 7.18
1990	$3.9	$79.9	$4.0		$23.7	$103.5	-3%	554	$ 187	$ 7.18
1991	$5.1	$78.7	$4.1	$1.0	$25.9	$104.6	20%	570	$ 184	$ 7.18
1992	$3.9	$78.8	$4.2		$26.8	$105.6	-9%	587	$ 180	$ 7.18
1993	$4.7	$78.1	$4.3	$0.4	$28.5	$106.6	8%	597	$ 178	$ 7.18
1994	$2.8	$79.2	$4.3		$28.4	$107.6	-56%	601	$ 179	$ 7.18
1995	$4.8	$78.4	$4.3	$0.5	$30.3	$108.7	10%	602	$ 180	$ 7.18
1996	$3.4	$78.9	$4.4		$30.9	$109.8	-28%	606	$ 181	$ 7.18
1997	$3.8	$79.0	$4.4		$31.9	$110.9	-14%	610	$ 182	$ 7.18
1998	$2.5	$80.4	$4.4		$31.5	$112.0	-77%	618	$ 181	$ 7.18
1999	$1.5	$83.0	$4.5		$30.1	$113.1	-208%	623	$ 182	$ 7.18
2000	$3.1	$84.1	$4.5		$30.1	$114.3	-48%	628	$ 182	$ 7.18
2001	$2.8	$85.5	$4.5		$29.9	$115.4	-62%	633	$ 182	$ 7.18
2002	$2.0	$87.8	$4.6		$28.8	$116.6	-128%	641	$ 182	$ 7.18
2003	$2.4	$89.7	$4.7		$28.0	$117.8	-93%	649	$ 182	$ 7.18
2004	$2.8	$91.4	$4.7		$27.5	$118.9	-70%	658	$ 181	$ 7.18
2005	$3.7	$92.3	$4.8		$27.8	$120.1	-28%	665	$ 181	$ 7.18
2006	$4.7	$92.2	$4.8		$29.1	$121.3	-3%	672	$ 180	$ 7.18
2007	$5.4	$91.4	$4.9	$0.6	$31.1	$122.5	10%	677	$ 181	$ 7.18
2008	$11.4	$84.5	$4.9	$6.5	$39.2	$123.7	57%	683	$ 181	$ 7.18
2009	$6.0	$82.8	$5.0	$1.0	$42.1	$124.9	16%	693	$ 180	$ 7.18
2010	$6.2	$80.7	$5.0	$1.2	$45.4	$126.1	19%	700	$ 180	$ 7.18
2011	**$5.2**	**$79.5**	$5.1	**$0.1**	**$47.8**	**$127.3**	**3%**	**707.0**	**$180.1**	**$7.2**

2011	$5.2	$79.5	$5.1	$0.1	$47.8	$127.3	3%	707.0	$180.1	$7.2
2012	$5.5	$78.0	$5.1	$0.4	$50.6	$128.6	7%	714.1	$ 180	$ 7.18
2013	$5.8	$76.1	$5.2	$0.7	$53.7	$129.8	11%	721.2	$ 180	$ 7.18
2014	$6.2	$73.7	$5.2	$1.0	$57.4	$131.1	16%	728.4	$ 180	$ 7.18
2015	$6.5	$70.8	$5.3	$1.2	$61.5	$132.3	19%	735.7	$ 180	$ 7.18
2016	$6.8	$67.5	$5.3	$1.5	$66.1	$133.6	22%	743.1	$ 180	$ 7.18
2017	$6.8	$64.1	$5.4	$1.4	$70.8	$134.9	20%	750.5	$ 180	$ 7.18
2018	$6.6	$60.7	$5.4	$1.2	$75.5	$136.2	18%	758.0	$ 180	$ 7.18
2019	$6.2	$57.6	$5.5	$0.7	$79.9	$137.5	11%	765.6	$ 180	$ 7.18
2020	$6.2	$54.2	$5.6	$0.7	$84.6	$138.8	11%	773.2	$ 180	$ 7.18
2021	$5.8	$51.2	$5.6	$0.2	$89.0	$140.2	3%	781.0	$ 179	$ 7.18
2022	$5.4	$48.3	$5.7	($0.2)	$93.2	$141.5	-5%	788.8	$ 179	$ 7.18
2023	$5.1	$45.7	$5.7	($0.7)	$97.2	$142.9	-13%	796.7	$ 179	$ 7.18
2024	$4.8	$43.2	$5.8	($1.0)	$101.0	$144.2	-21%	804.6	$ 179	$ 7.18
2025	$4.7	$40.7	$5.8	($1.2)	$104.9	$145.6	-25%	812.7	$ 179	$ 7.18
2026	$4.4	$38.3	$5.9	($1.5)	$108.7	$147.0	-33%	820.8	$ 179	$ 7.18
2027	$4.2	$36.1	$6.0	($1.8)	$112.3	$148.4	-43%	829.0	$ 179	$ 7.18
2028	$3.9	$33.9	$6.0	($2.1)	$115.8	$149.8	-53%	837.3	$ 179	$ 7.18
2029	$3.7	$31.9	$6.1	($2.3)	$119.3	$151.2	-63%	845.7	$ 179	$ 7.18
2030	$3.6	$29.9	$6.1	($2.5)	$122.7	$152.6	-72%	854.1	$ 179	$ 7.18
2031	$3.4	$28.0	$6.2	($2.8)	$126.0	$154.0	-82%	862.7	$ 179	$ 7.18
2032	$3.2	$26.2	$6.3	($3.0)	$129.3	$155.5	-93%	871.3	$ 178	$ 7.18
2033	$3.1	$24.4	$6.3	($3.3)	$132.5	$156.9	-106%	880.0	$ 178	$ 7.18
2034	$2.9	$22.7	$6.4	($3.5)	$135.7	$158.4	-119%	888.8	$ 178	$ 7.18
2035	$2.8	$21.1	$6.4	($3.7)	$138.8	$159.9	-133%	897.7	$ 178	$ 7.18
2036	$2.6	$19.5	$6.5	($3.9)	$141.8	$161.3	-147%	906.7	$ 178	$ 7.18
2037	$2.5	$18.0	$6.6	($4.1)	$144.9	$162.8	-163%	915.7	$ 178	$ 7.18
2038	$2.4	$16.5	$6.6	($4.3)	$147.8	$164.3	-178%	924.9	$ 178	$ 7.18
2039	$2.3	$15.0	$6.7	($4.4)	$150.8	$165.8	-195%	934.2	$ 178	$ 7.18
2040	$2.2	$13.6	$6.8	($4.5)	$153.7	$167.4	-212%	943.5	$ 177	$ 7.18
2041	$2.1	$12.2	$6.8	($4.8)	$156.7	$168.9	-229%	952.9	$ 177	$ 7.18
2042	$2.0	$10.8	$6.9	($4.9)	$159.6	$170.4	-248%	962.5	$ 177	$ 7.18
2043	$1.9	$9.5	$7.0	($5.1)	$162.5	$171.9	-267%	972.1	$ 177	$ 7.18
2044	$1.8	$8.1	$7.1	($5.2)	$165.4	$173.5	-287%	981.8	$ 177	$ 7.18
2045	$1.7	$6.8	$7.1	($5.4)	$168.3	$175.0	-307%	991.6	$ 177	$ 7.18
2046	$1.7	$5.4	$7.2	($5.5)	$171.2	$176.6	-328%	1,001.5	$ 176	$ 7.18
2047	$1.6	$4.1	$7.3	($5.7)	$174.1	$178.2	-350%	1,011.6	$ 176	$ 7.18
2048	$1.6	$2.7	$7.3	($5.8)	$177.0	$179.7	-372%	1,021.7	$ 176	$ 7.18
2049	$1.5	$1.4	$7.4	($5.9)	$179.9	$181.3	-395%	1,031.9	$ 176	$ 7.18
2050	$1.4	$1.4	$7.5	($6.1)	$182.9	$184.3	-418%	1,042.2	$ 177	$ 7.18

SENATE COMMITTEE REPORT
First Committee of Referral

DATE: 1/17/12

FURTHER: Finance

Date of 5-Day Notice: 1/10/12
(in accordance with Uniform Rule 23)

DATE TURNED IN TO OFFICE: 2/2/12

State Affairs Committee considered SENATE JOINT RESOLUTION NO. 10

SJR 10-CONT. AM.: BUDGET RESERVE FUND

Proposing an amendment to the Constitution of the State of Alaska relating to deposits to the constitutional budget reserve fund from surplus oil revenue.

and recommends:

[✓] be **replaced** with **CS** SBR 10 (STA) *[ ] Same Title [ ] New Title*

[ ] adopt **previous CS** _____ SCS/CS- Forthcoming _____) *[ ] Same Title [ ] New Title*

[ ] attached amendment(s)

[ ] adopt _____ Letter of Intent

[ ] further referral to _____ Committee

Dept Abbr.	
ADM	LEG
CED	LAW
COR	LWF
CRT	MVA
EED	DNR
DEC	DPS
DFG	REV
GOV	DOT
DHS	UA

NEW FISCAL NOTE(S)				
Dept.	Fiscal	Indet.	Zero	FN #
Gov	✓			1

PREVIOUS FISCAL NOTE(S)				
Dept.	Fiscal	Indet.	Zero	FN #

[ ] **APPROPRIATION - no fiscal note**

SIGNATURES AND RECOMMENDATIONS:	PRINTED LAST NAME	DO PASS	DO NOT PASS	NO REC	AMEND
	Kookesh	✓			
	Pasker	x			
	Meyer			X	
	Giessel			X	
CHAIR:	Wielechowski	X			