

SB70 REVIEW

Randall Hoffbeck, *Commissioner of Revenue*



Senate Finance Committee
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Part I

THE PERMANENT FUND'S ROLE IN A SOLUTION

USE OF PERMANENT FUND EARNINGS

“This proposal, if approved, would amend the Constitution of the State of Alaska by ... establish[ing] a constitutional permanent fund into which at least 25 percent of all [mineral royalties] received by the State would be paid. The principal of the fund would be used only for income-producing investments permitted by law and the income from the fund would be deposited in the general fund of the State and be available to be appropriated for expenditure by the State unless otherwise provided by law.”

Ballot Proposition No. 2

Permanent Fund from Non-Renewable Resource Revenue

Constitutional Amendment



WHY USE PERMANENT FUND EARNINGS

FY18 Budget \$4.3 billion

FY18 Budget Gap \$2.8 billion

Potential Tools to Close the Gap

Motor Fuels Tax Increase \$0.1

Broad Based Tax \$0.6

Oil Tax Credit Reform \$0.1

Max. Cuts Proposed (over 3 years) \$0.75

SB70 (net dividend) \$1.9



Part II

STRUCTURE FOR USING THE PERMANENT FUND

STRUCTURE FOR USING THE PERMANENT FUND

1. Rule-Based Framework (Saving, Spending, Dividend)
2. Stabilize the Budget
3. Protect the Dividend
4. Protect the Permanent Fund
5. Maximize the use of the Earnings Reserve



STRUCTURE FOR USING THE PERMANENT FUND

A plan to use the fund should be ...

1. Rule-Based (Saving, Spending, Dividend)

- Greatest threat to long term fund durability is unplanned withdrawals
- Withdrawals need to occur under a set of statutory rules
 - Designed to protect the fund and guard against unsustainable uses
 - Ensure the ERA holds enough to bridge years of low earnings (“ERA durability”)

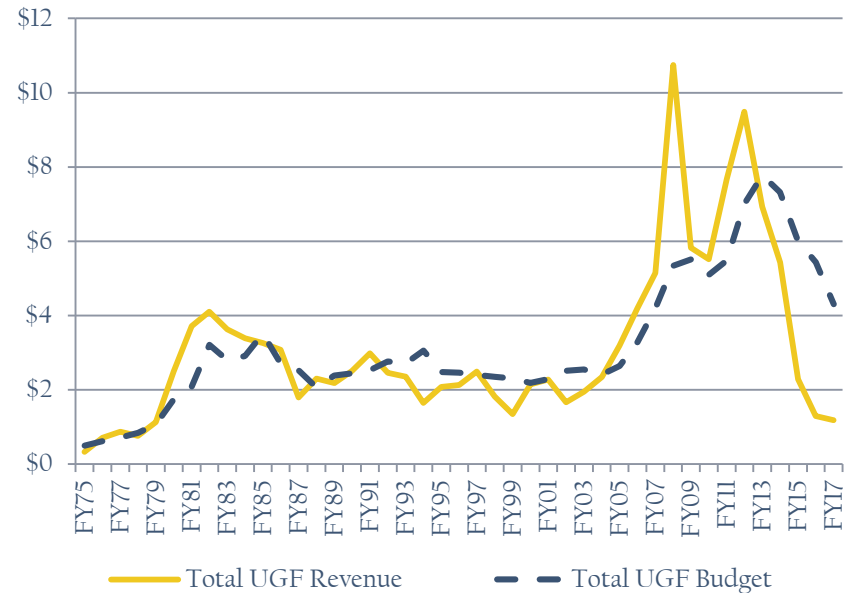


STRUCTURE FOR USING THE PERMANENT FUND

A plan to use the fund should be ...

2. Stabilizing:

- Over the long term, economies that experience repeated ups and downs grow slower than stable economies.
- Because commodity prices are volatile, economies dominated by a single commodity industry, like the petroleum industry, experience more (and more pronounced) cycles.
- Permanent Fund Earnings can play a central role in reducing four decades of boom and bust budgeting cycles.



STRUCTURE FOR USING THE PERMANENT FUND

A plan to use the fund should...

3. Protect the Dividend

- Reflects the current and future economic realities of shrinking oil and gas tax revenue.
- Recognizes that too large a dividend limits available options for full fiscal solutions.
- Provides for a sustainable dividend for all generations of Alaskans.



STRUCTURE FOR USING THE PERMANENT FUND

A plan to use the fund should...

4. Protect the Permanent Fund

- Meant to provide for funding state expenditures for all generations of Alaskans.
- Maintain or grow the real (inflation-adjusted) value of the permanent fund.
- Withdrawing too much is unsustainable and risks damaging the fund.



STRUCTURE FOR USING THE PERMANENT FUND

A plan to use the fund should ...

5. Maximize the use of the Permanent Fund Earnings:

- As North Slope production declines, the fund's earnings will be increasingly important in eliminating the fiscal imbalance in order to sustain public services.
 - Similar to petroleum revenue, investment earnings can be highly variable.
 - Unlike petroleum, our financial reserves are a renewable resource.
- Withdrawing too little limits future options for full fiscal solutions.
- Other proposed new revenues and cuts could reduce the deficit by millions, the fund can *sustainably* contribute billions .





Part III

SB 70 MODELING

MODEL SOPHISTICATION AND VETTING

- Key aspects of the model
 - Probabilistic treatment of oil prices, oil production, investment returns
 - Focus on detail of how money flows between permanent fund, general fund, and dividends
 - Assumptions from objective sources
 - Monte Carlo simulations

- Vetted by McKinsey last year
 - Found no major mechanical errors, reasonable assumptions
 - Approved of Monte Carlo probabilistic method
 - Suggested improvements, some of which the Department of Revenue (DOR) has incorporated (for example, probabilistic oil production, autocorrelation)



METHOD, INPUTS, AND ASSUMPTIONS

- **Permanent Fund Starting Value: \$54.9 billion**
 - Realized portion of corpus: \$37.9 billion
 - Realized portion of earnings reserve account (ERA): \$9.7 billion
 - Unrealized earnings held by the fund: \$6.3 billion
 - Starting value based on
 - APFC forecast for end of fiscal year 2017 (FY17), without inflation proofing transfer for FY17
 - Because APFC accounts for October 2017 dividends in FY17, scenarios starting with \$1,000 per person dividends begin with a higher realized ERA balance of \$10.6 billion and a total fund balance of \$55.8 billion
- **Investment Return: Callan Associates' 10-year forecast**
 - Total return: 6.95% geometric, 12.32% standard deviation
 - Statutory return: 6.24% mean, 2.24% standard deviation
 - Inflation rate: 2.25%

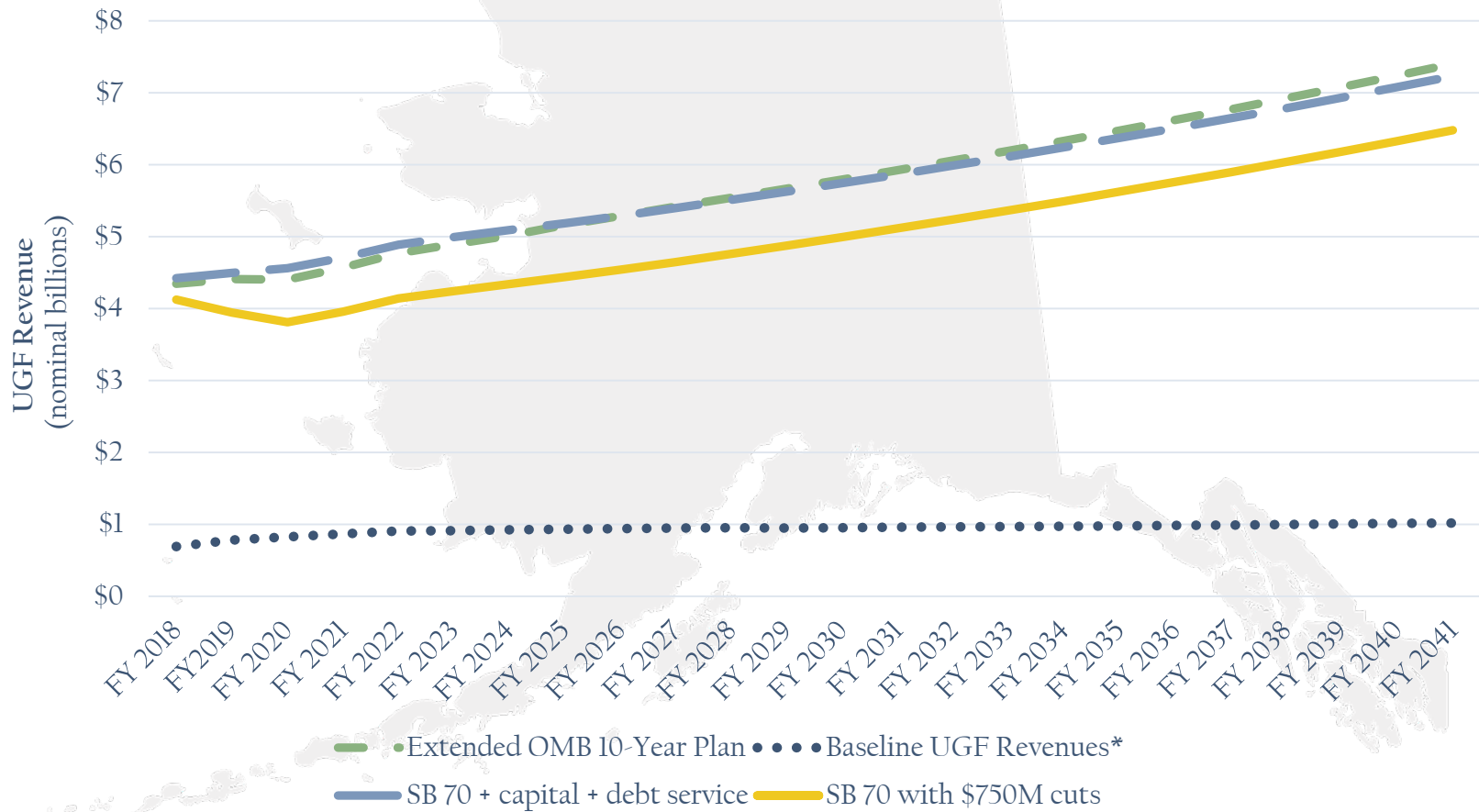


METHOD, INPUTS, AND ASSUMPTIONS

- **Petroleum Revenues:**
 - **Oil price:** Probabilistic analysis of ANS oil prices using a PERT distribution from the fall 2016 price forecasting session
 - **Production:** Probabilistic analysis of ANS oil prices using a PERT distribution from the DNR provided Fall 2016 RSB
- **CBR:** \$4.4 billion beginning of year 2018 balance & a 2.25% rate of return



BUDGET ASSUMPTIONS



SB 70 SCENARIOS MODELED

- **Deposits:** 25% of royalties deposited into the permanent fund
- **Draw Calculation**
 - Maximum POMV:
 - For first 4 years, 5.25% of the average value of the fund in the first 5 of the last 6 years.
 - Beginning in FY22, 5% of the average value of the fund in the first 5 of the last 6 years.
 - Draw Limit: The maximum POMV amount is reduced by \$1 for every \$1 that UGF royalties and production taxes exceed \$1.2 billion.
- **Dividend Calculation:**
 - 25% of the maximum POMV calculation (before applying the draw limit).
 - Overwriting the above calculation, the dividends for CY2017, CY2018 and CY2019 are \$1,000 per person (the fund starting value accounts for the CY17 dividend).
- **Inflation Proofing:** Any ERA balance over 4 times the full POMV calculation (after the current year draw) is transferred to the corpus.



SB 70 SCENARIOS MODELED

- SB70 with Full Fiscal Plan (full deficit closure, no additional draws)
 - The model assumes that the permanent fund framework is immune to any UGF deficit
 - This means that there are no unplanned withdrawals from the ERA

- SB70 with no other Measures (structural deficit remains requiring additional draws) :
 - The model uses the \$4.1 billion appropriation limit in SB 70 plus OMB's capital budget and debt service payments as the budget assumption
 - Any deficit remaining after the planned withdrawal from the ERA is filled first from the CBR; after the CBR is depleted, budget deficits are filled by unplanned withdrawals from the ERA

- SB70 with 3 year \$750 million in cuts (\$300, \$250, \$200 million)
 - The model uses the \$4.1 billion appropriation limit in SB 70 plus OMB's capital budget and debt service payments as the budget assumption
 - Deficits are reduced by incremental spending reductions of \$300, \$250, \$200 million. Any deficit remaining after the planned withdrawal from the ERA is filled first from the CBR; after the CBR is depleted, budget deficits are filled by unplanned withdrawals from the ERA



Part IV

DRAW DURABILITY

POMV DRAW

- 5.25% of the average fund value in the first 5 of the last 6 years
- Example: draw calculation for fiscal year 2018

End of FY	Fund Value (billions\$, excludes Am.Hess.)	
2012	\$39.9	Average = \$48.1
2013	\$44.4	
2014	\$50.8	
2015	\$52.4	
2016	\$53.1	
2017	\$53.6	
2018	...	

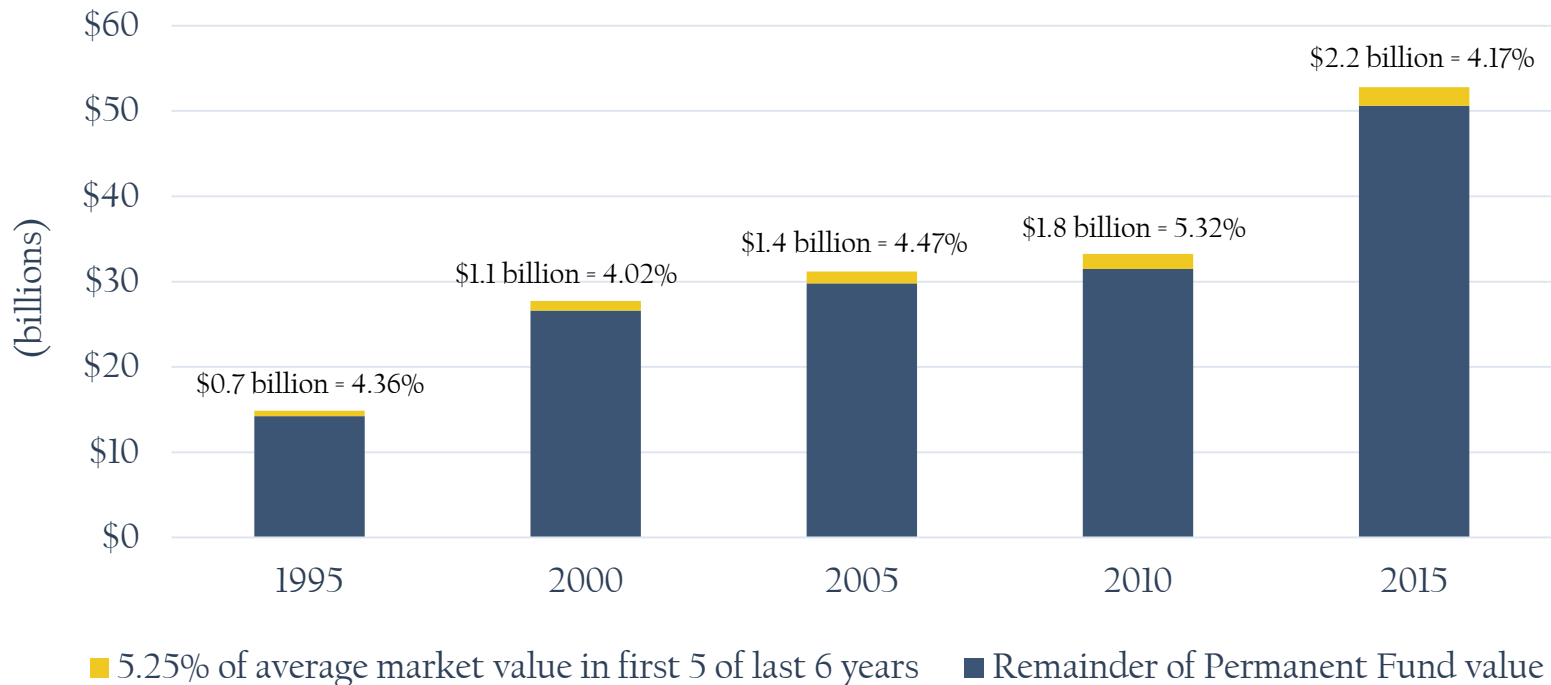
- Average fund value in the first 5 of the last 6 years = \$48.1 billion
- 5.25% of \$48.1 = \$2.5 billion
- Effective POMV: = 4.7% of 2017 value

- Aggressive, but sustainable ... *if* the draw limit is applied



THE EFFECTIVE POMV

Based on historic fund values, these “snapshot” POMV calculations demonstrate that, 5.25 percent of the fund’s average market value in the first 5 of the preceding 6 years is generally less than 5.25 percent of the fund’s current value.

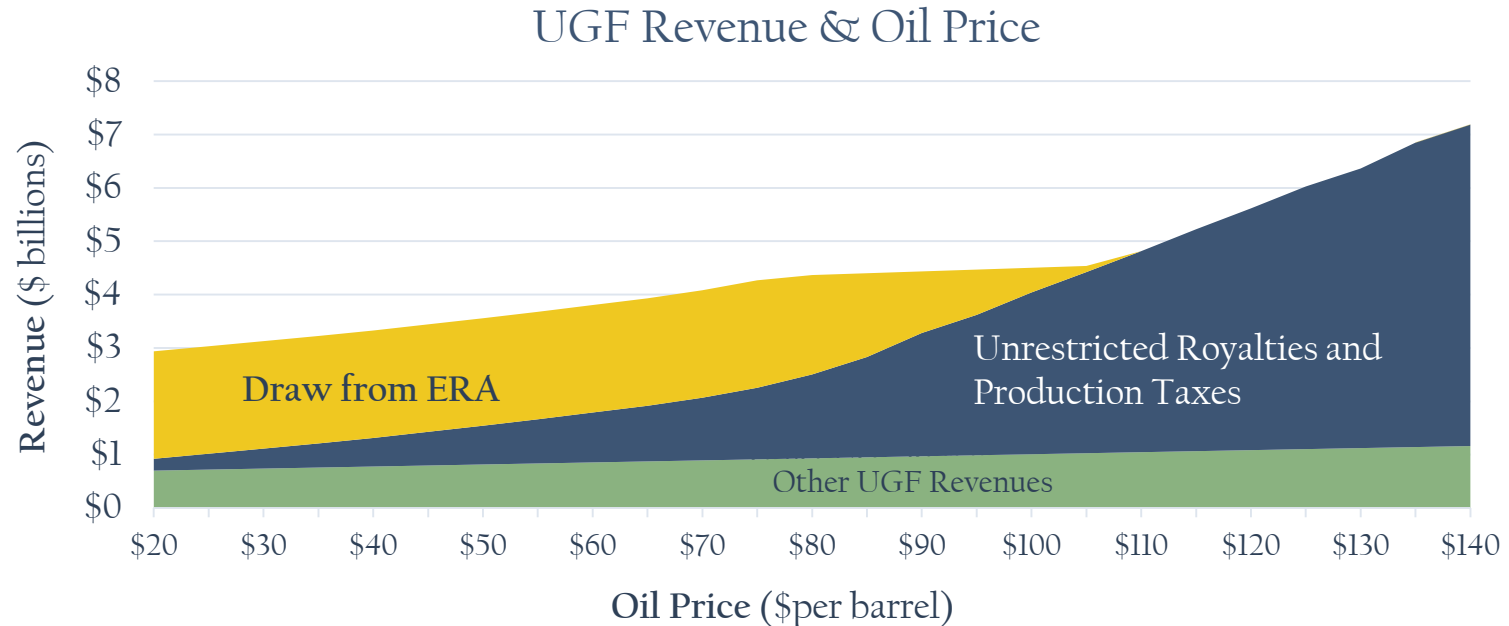


DRAW LIMIT

- Reduces the POMV draw by \$1 for every \$1 that UGF production taxes and royalties exceed \$1.2 billion.
- Does not apply to the portion of the POMV going to dividends.



UGF REVENUE WITH POMV & DRAW LIMIT



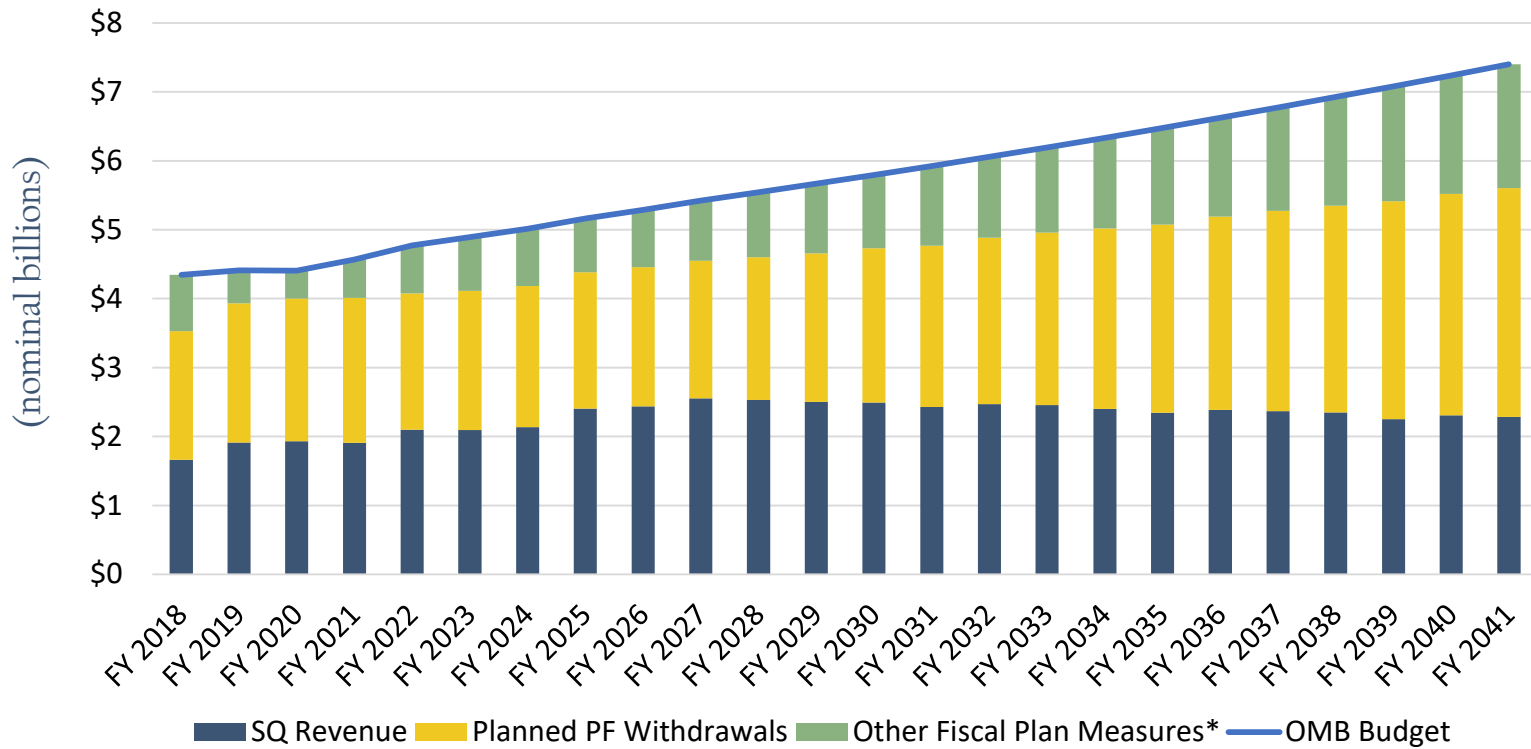
A formula that includes a draw limit:

- Gradually reduces the amount drawn from the ERA as oil revenues increase
- Stabilizes UGF revenue through a range of oil prices
- Grows the fund more, producing larger draws and dividends in the future



SB70, FULL FISCAL PLAN

Median UGF Revenue & Budget



*Other Fiscal Plan Measures could include any combination of budget cuts, new revenues, or withdrawals from non PF savings



Part V

DIVIDEND DURABILITY

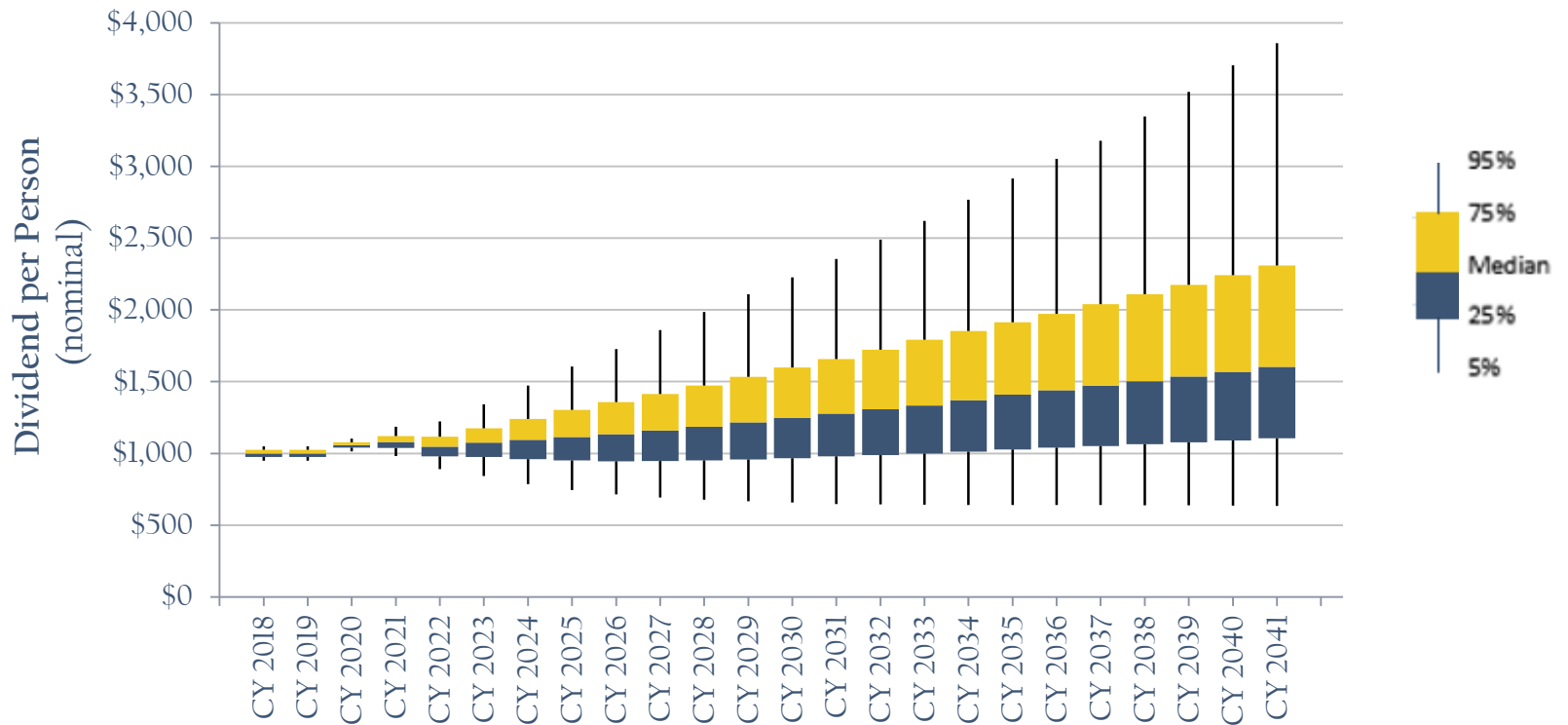
DIVIDEND FORMULA

- \$1,000 per person for the first 3 years, then
- 25% of the POMV draw (expected to be about \$1,000 per person into the future)



SB70, FULL FISCAL PLAN

Dividends



2018 median value: \$1,000

2041 median value: \$1,603 nominal
(\$940 real)



Part VI

INFLATION PROOFING / FUND DURABILITY

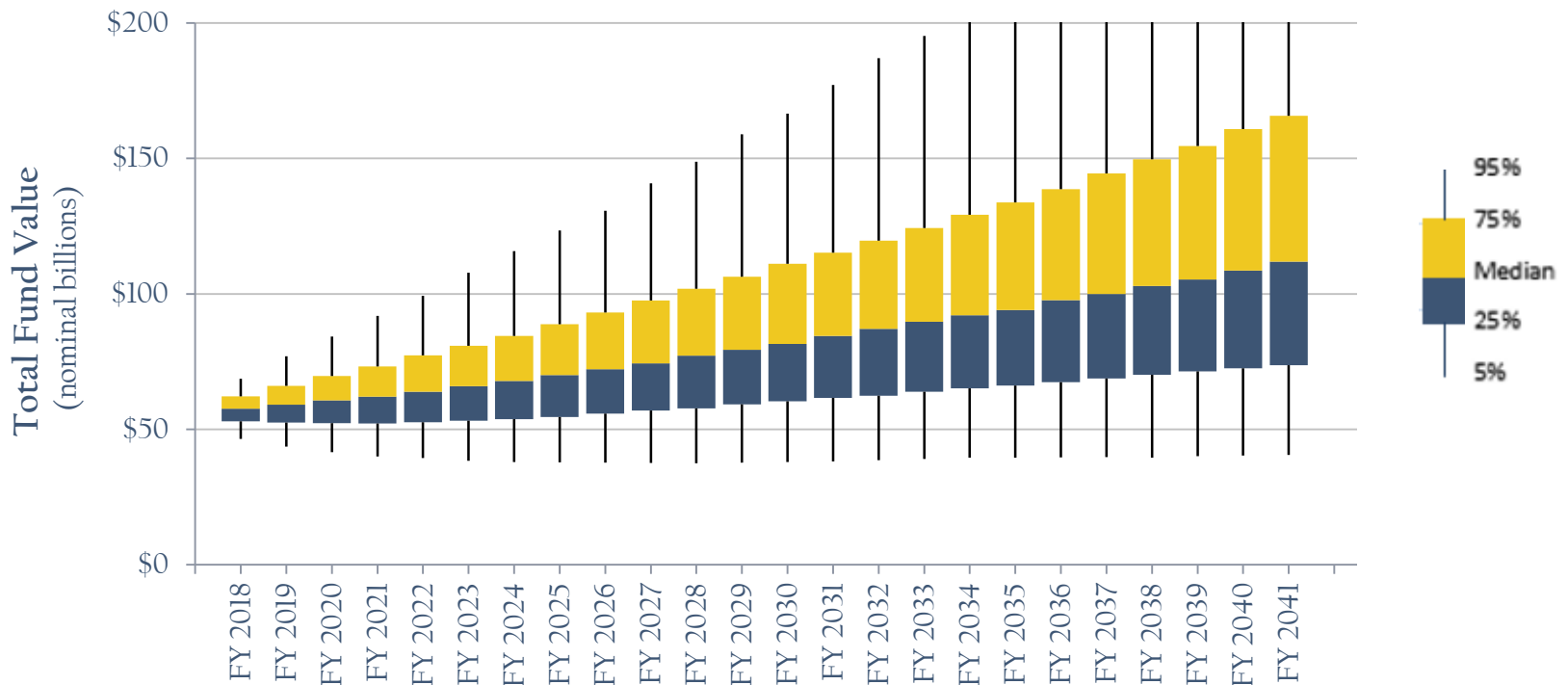
INFLATION PROOFING TRANSFERS

- AS 37.13.145(c) currently provides for annual inflation proofing transfers from the ERA to corpus
- The ERA needs a sufficient balance to be able to meet the draw each year (“ERA durability” concern)
- Bill provides that the ERA balance over 4 times the maximum draw (after current year draw) is transferred to corpus instead
- This “4 times” rule is designed to grow the corpus in pace with inflation over time



SB70, FULL FISCAL PLAN

Fund Size



2041 median : \$112 billion nominal
(\$66 billion real)

ER Fail Rate over 24 Years: <1%

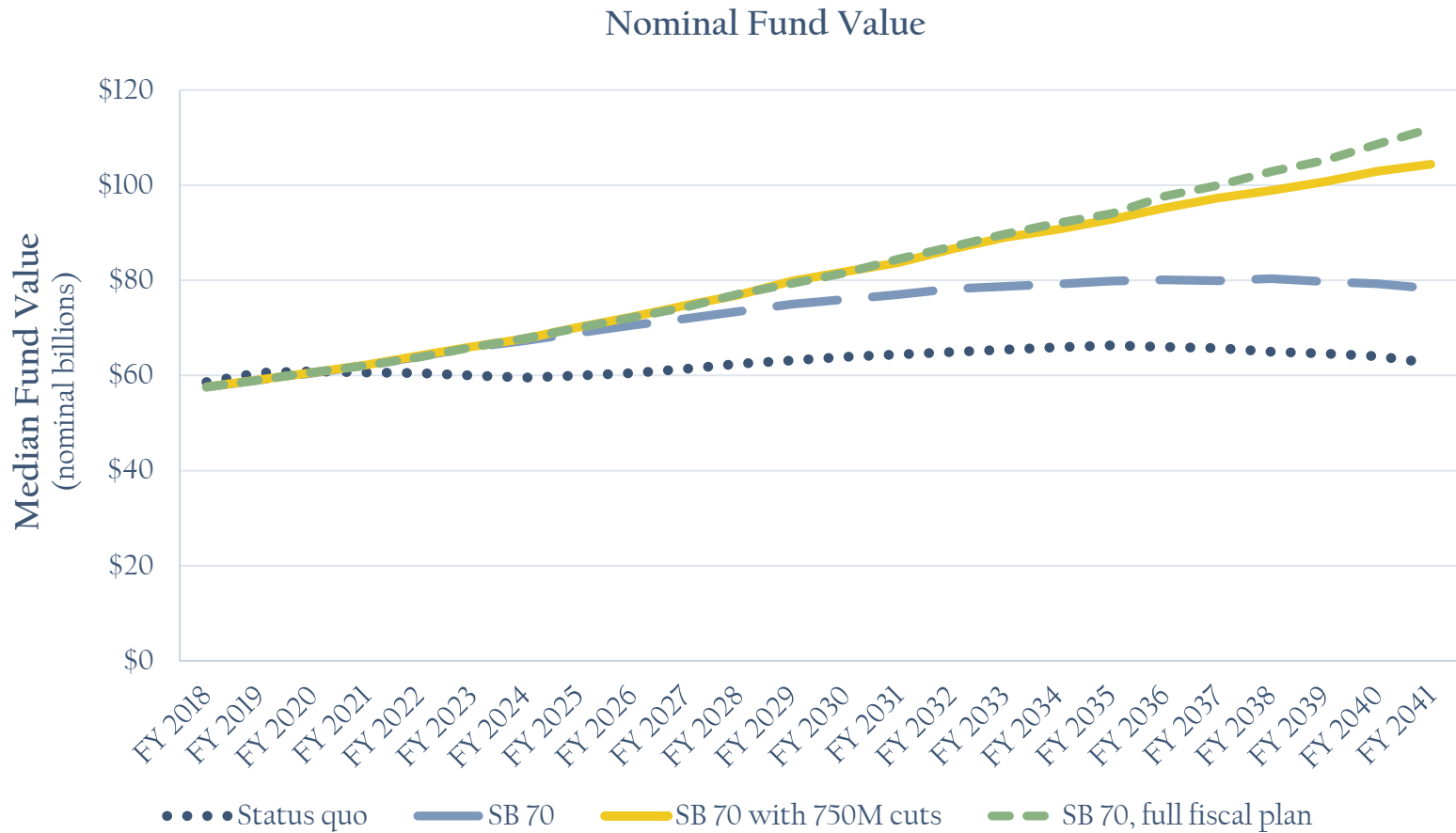




Part VIII

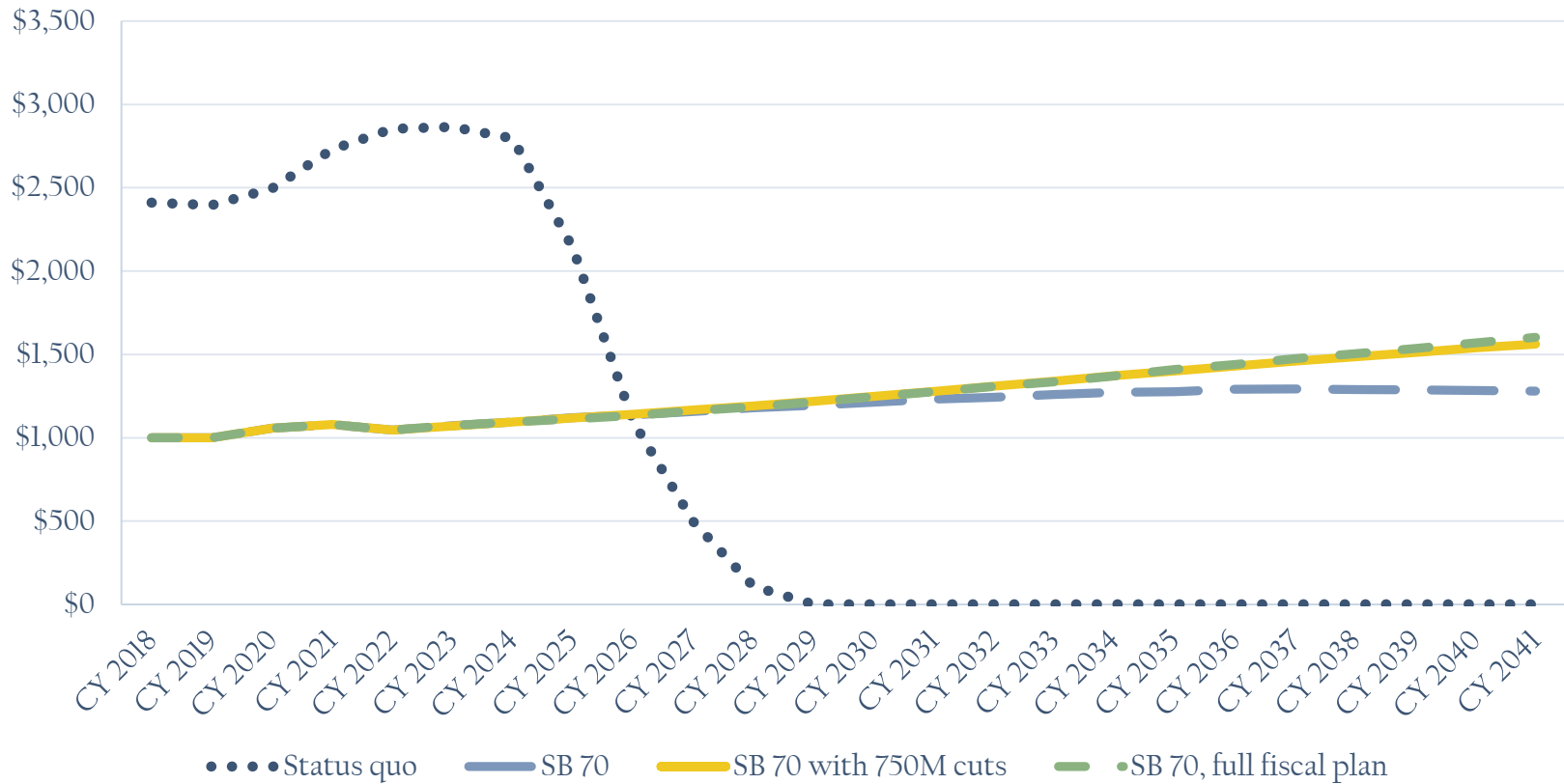
FISCAL PLAN IMPACT

SB 70 MODELING COMPARISON: FUND SIZE

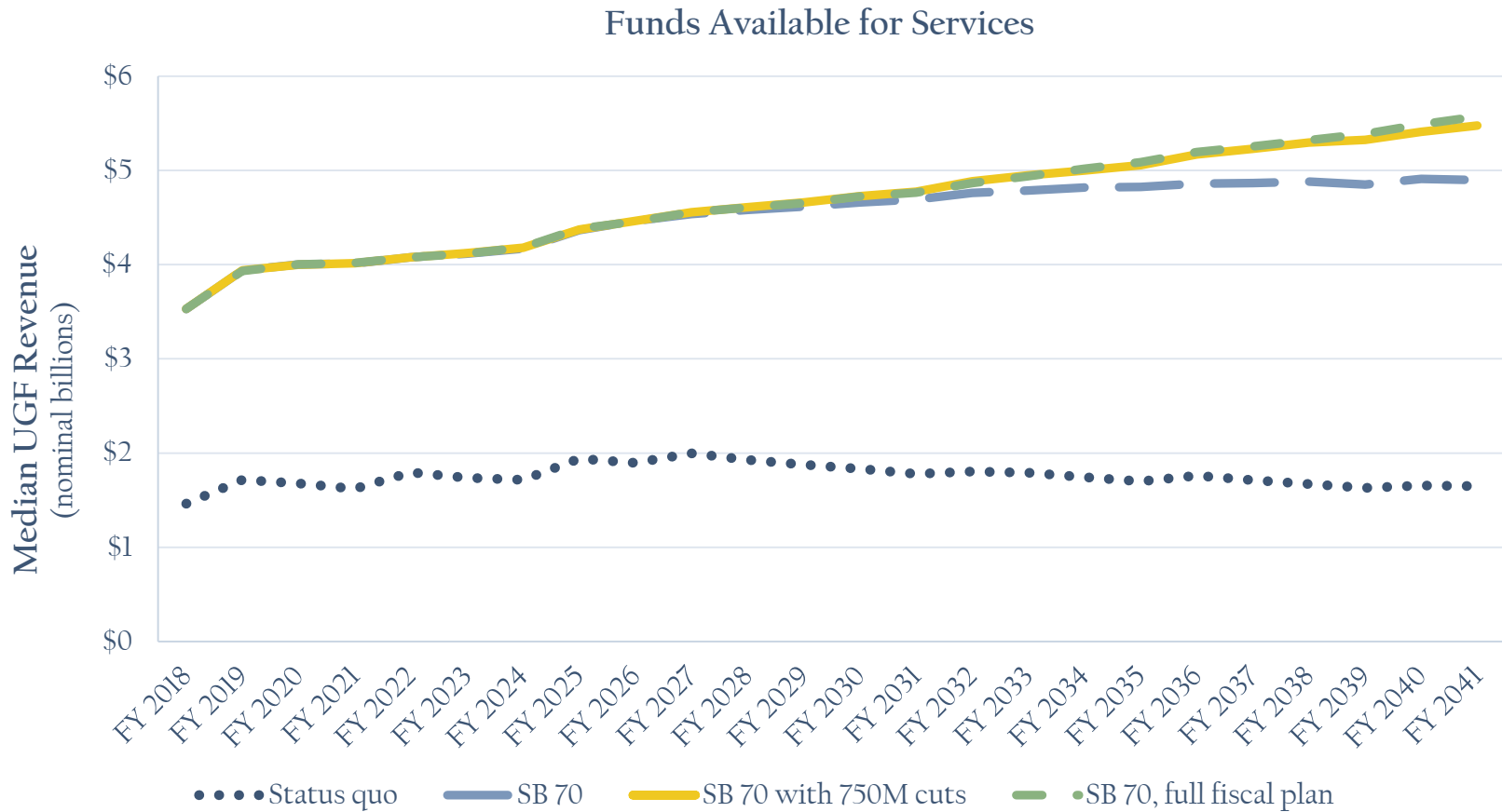


SB 70 MODELING COMPARISON: DIVIDEND

Nominal Dividend Per Person (Median)



SB 70 MODELING COMPARISON: UGF REVENUE





Part VIII

CONCLUSION

CONCLUSION

	Status Quo	SB70 Alone	SB 70 With Full Fiscal Plan	SB 70 With \$750 million cuts
1. Rule-Based	Only until CBR is depleted.	Only until CBR is depleted.	Yes.	Yes.
2. Stabilizing				
- Investment Income	No, not addressed.	Not after ERA depleted.	Partial, 5-year averaging in POMV.	Partial, 5-year averaging in POMV.
- Total Revenue	No, not addressed.	Not after ERA depleted.	Partial, addressed in a mid-range of oil prices.	Partial, addressed in a mid-range of oil prices.
3. Protect the Dividend	Dividend at risk when ERA depleted.	Dividend at risk when ERA depleted.	Yes.	Yes.
4. Protect the Fund (total & corpus)	No. Value of fund and corpus greatly degraded.	No. Value of fund and corpus eventually degraded.	Yes. Maintains value of the fund and corpus over the long term.	Yes. Maintains value of the fund and corpus over the long term.
5. Maximize ERA Use	Over use. High risk of depleting ERA in short-term.	Over use. Substantial risk of depleting ERA in all scenarios.	Partial. Paired with a full fiscal plan, the fund can likely sustain POMV higher than 5% over the long term.	Partial. Paired with a full fiscal plan, the fund can likely sustain POMV higher than 5% over the long term.



CONCLUSION

(\$ in billions)	Status Quo	SB 70
FY18 UGF Budget	\$4.3	\$4.3
FY18 Existing UGF Revenues	\$1.6	\$1.7
Planned ERA Draws	N/A	\$1.9
Additional Measures required for a Full Fiscal Plan	\$2.8 billion	\$0.7 billion



SB 70

- Provides a Rule-Based Framework for use of the Permanent Fund earnings Reserve
- Stabilizes the budget related to Oil and Gas Revenues and Permanent Fund Earnings and limits spending on all revenues
- Protects the Dividend
- Protects the inflation adjusted value of the Permanent Fund
- Maximizes the use of the earnings reserve

