

PERMANENT FUND

PROTECTION ACT CSSB 26 (FIN)

Randall Hoffbeck, *Commissioner of Revenue*



House Finance Committee
Tuesday, March 28, 2017



Part I

CSSB26 REVIEW EXECUTIVE SUMMARY

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

\$4.2 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

SB26 (net dividend)

\$1.9



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



CSSB 26 STRUCTURE REVIEW

	Status Quo	SB 26 Alone	SB 26 With Full Fiscal Plan
1. Rule-Based	Only until CBR is depleted.	Only until CBR is depleted.	Yes.
2. Stabilizing			
- Investment Income	No, not addressed.	Not after ERA depleted.	Partial, 5-year averaging in POMV.
- Total Revenue	No, not addressed.	Not after ERA depleted.	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.
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.
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.



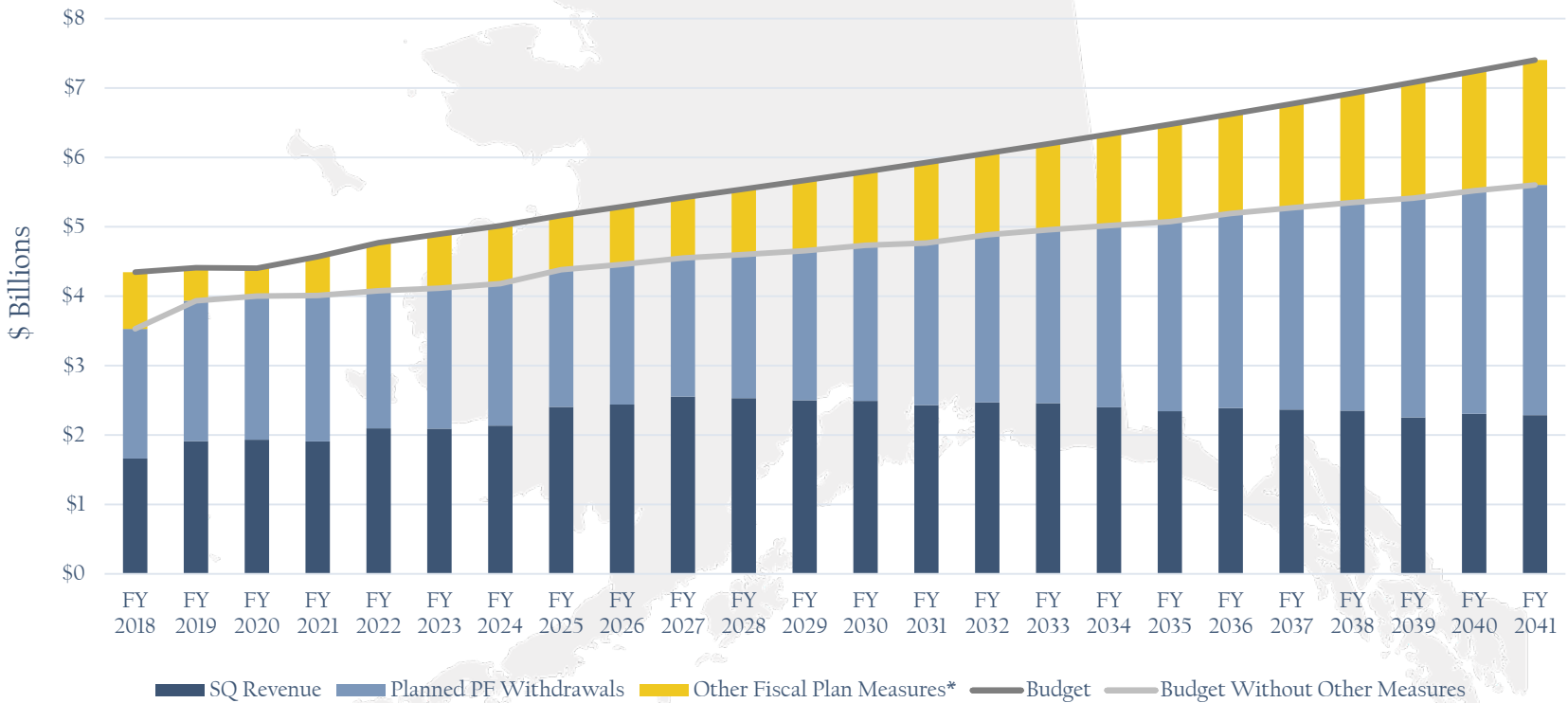
CSSB26 REVENUE REVIEW

(\$ in billions)	Status Quo	SB 26
FY18 UGF Budget	\$4.2 billion	\$4.1 billion + Capital & Debt
FY18 Existing UGF Revenues	\$1.6	
Planned ERA Draws	N/A	\$1.9
Additional Measures required for a Full Fiscal Plan	\$2.8 billion	\$0.6 billion + Capital & Debt



CSSB26 REVENUE REVIEW

Median UGF Revenue & Budget



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





Part II

A 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
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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”)

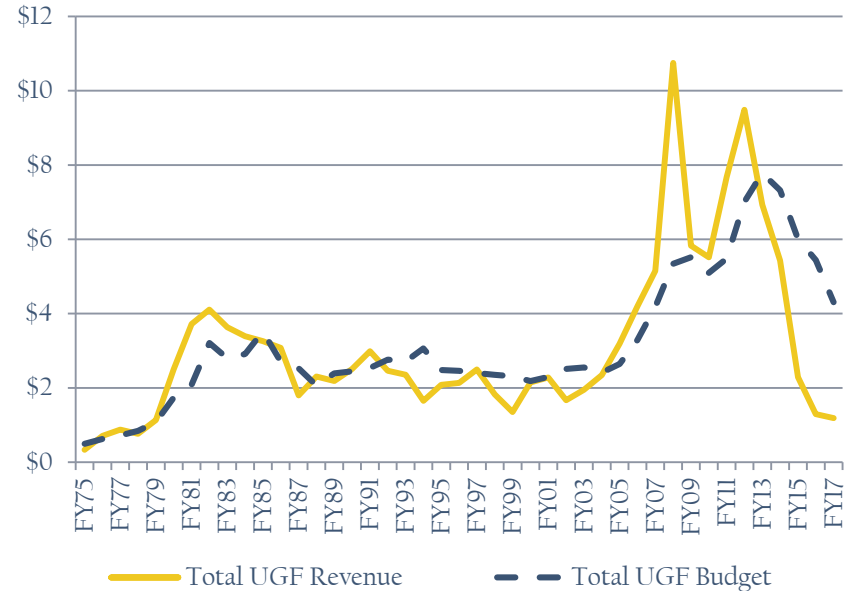


STRUCTURE FOR USING THE PERMANENT FUND

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

CSSB 26 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)
 - Because APFC accounts for October 2017 dividends in FY17, scenarios starting with \$1,000 per person dividends start with a higher realized ERA balance of \$8.7 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.



CSSB 26 SCENARIO MODELED

- **Deposits:** 25% of royalties deposited into the permanent fund.
- **Draw Calculation**
 - Maximum POMV:
 - For first 3 years, 5.25% of the average value of the fund in the first 5 of the last 6 years.
 - Beginning in FY 2021, 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.

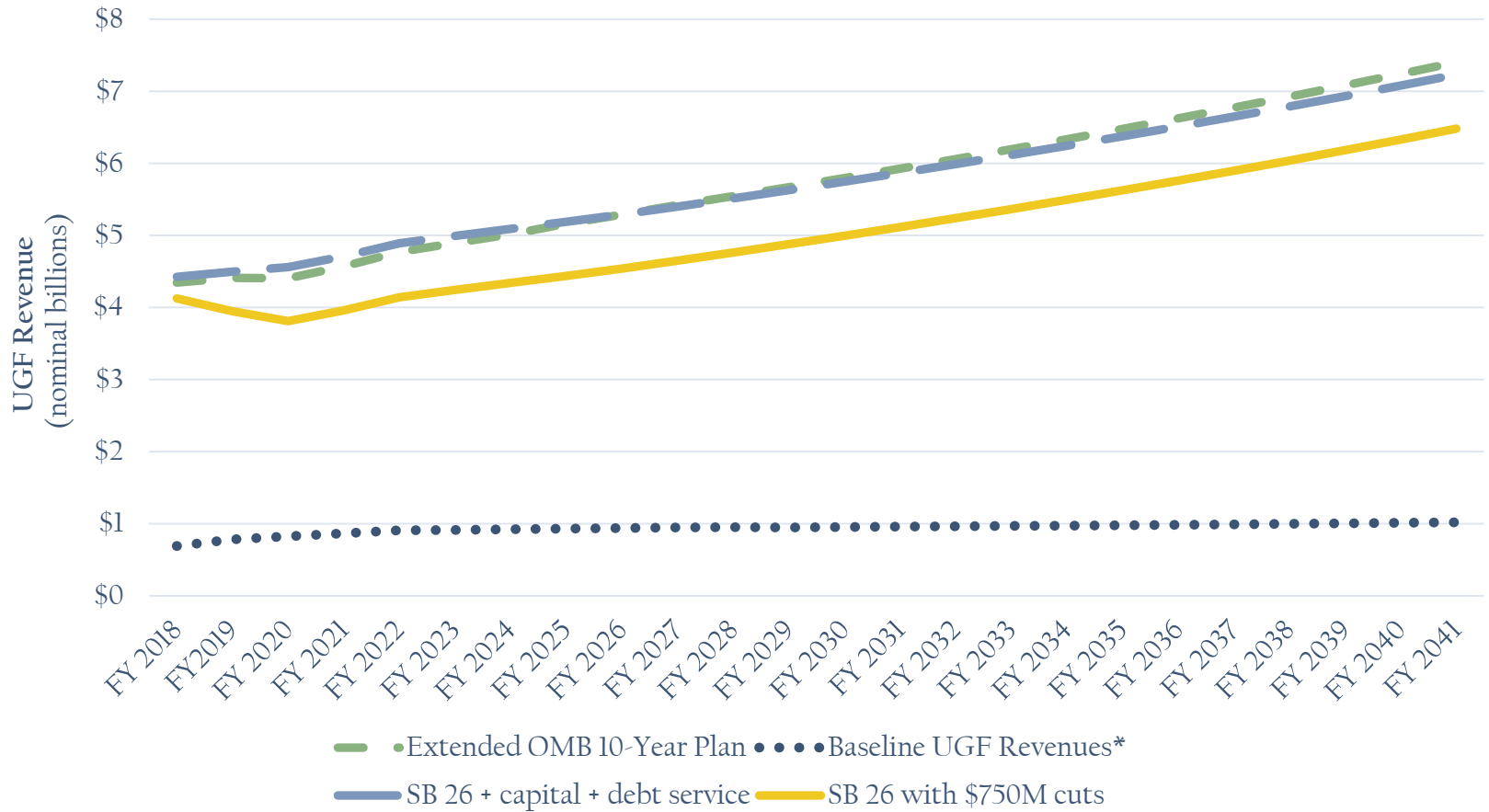


CSSB 26 SCENARIOS MODELED

- **SB26 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
- **SB26 with no other Measures** (structural deficit remains, requires additional draws)
 - The model uses the \$4.1 billion appropriation limit in SB 26 plus OMB's capital and debt payment budgets 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
- **SB26 with \$750 million in cuts over 3 years**
 - The model uses the \$4.1 billion appropriation limit in SB 26 plus OMB's capital and debt payment budgets as the budget assumption
 - Deficits are reduced incrementally by \$300, \$250, and \$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



BUDGET ASSUMPTIONS





Part IV

CSSB 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	...	

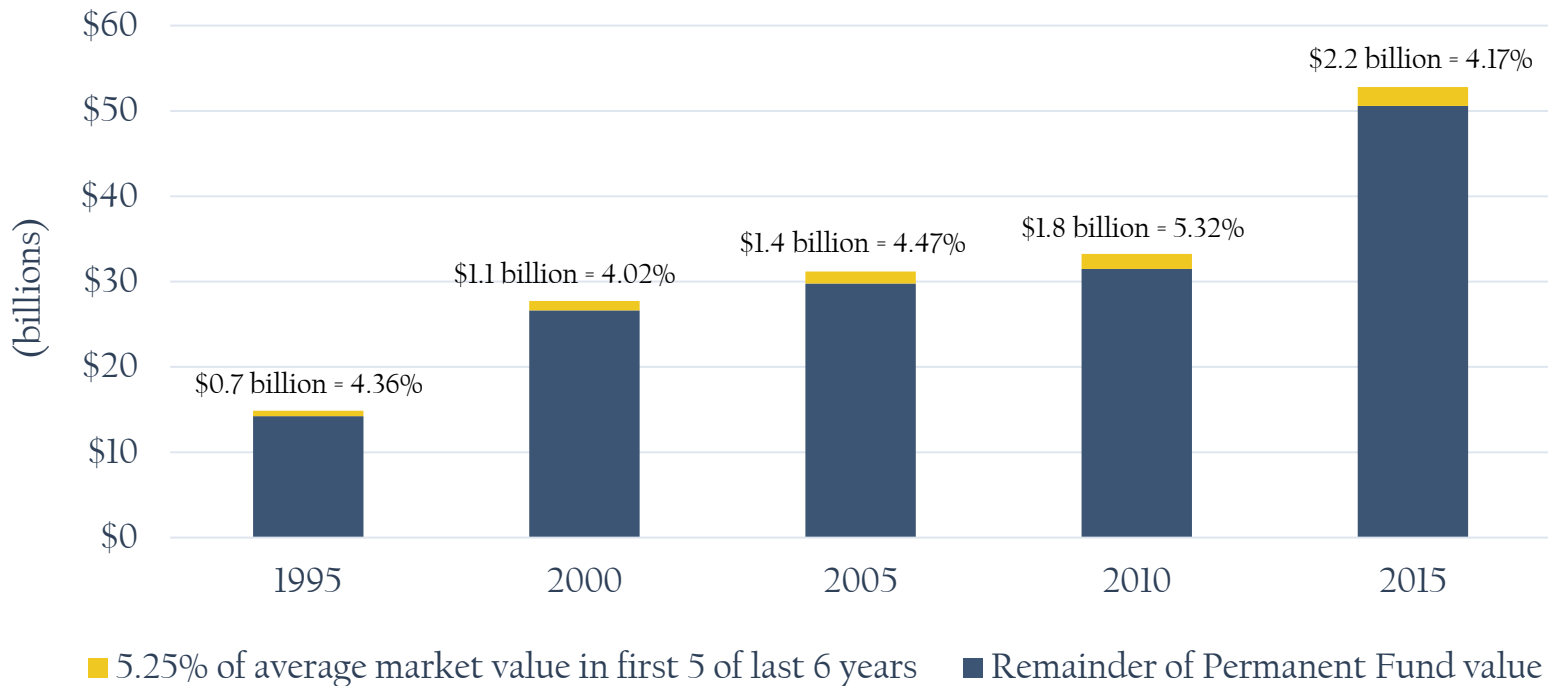
- Average fund value in the first 5 of the last 6 years = \$48.1 billion
- 5.25% of \$48.1 = \$2.5 billion
- Effective POMV: = 4.7% of 2017 value

- 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.

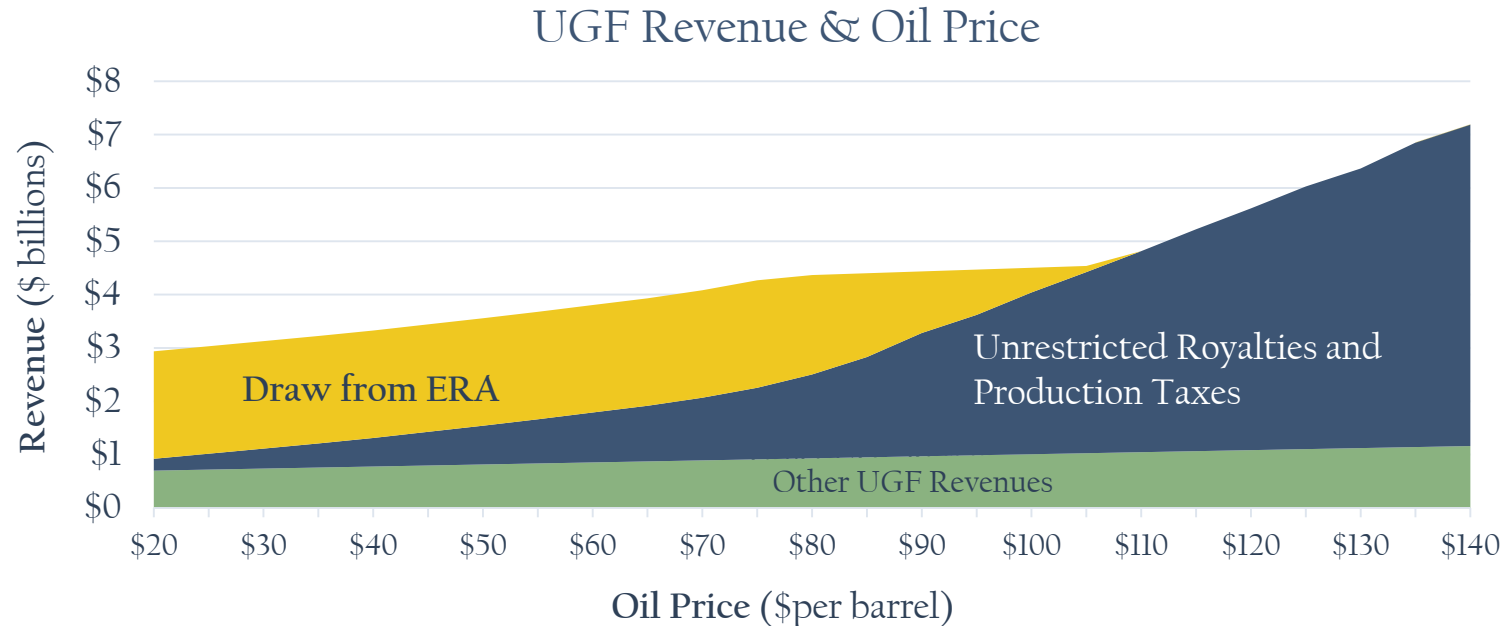


DRAW LIMIT

- 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

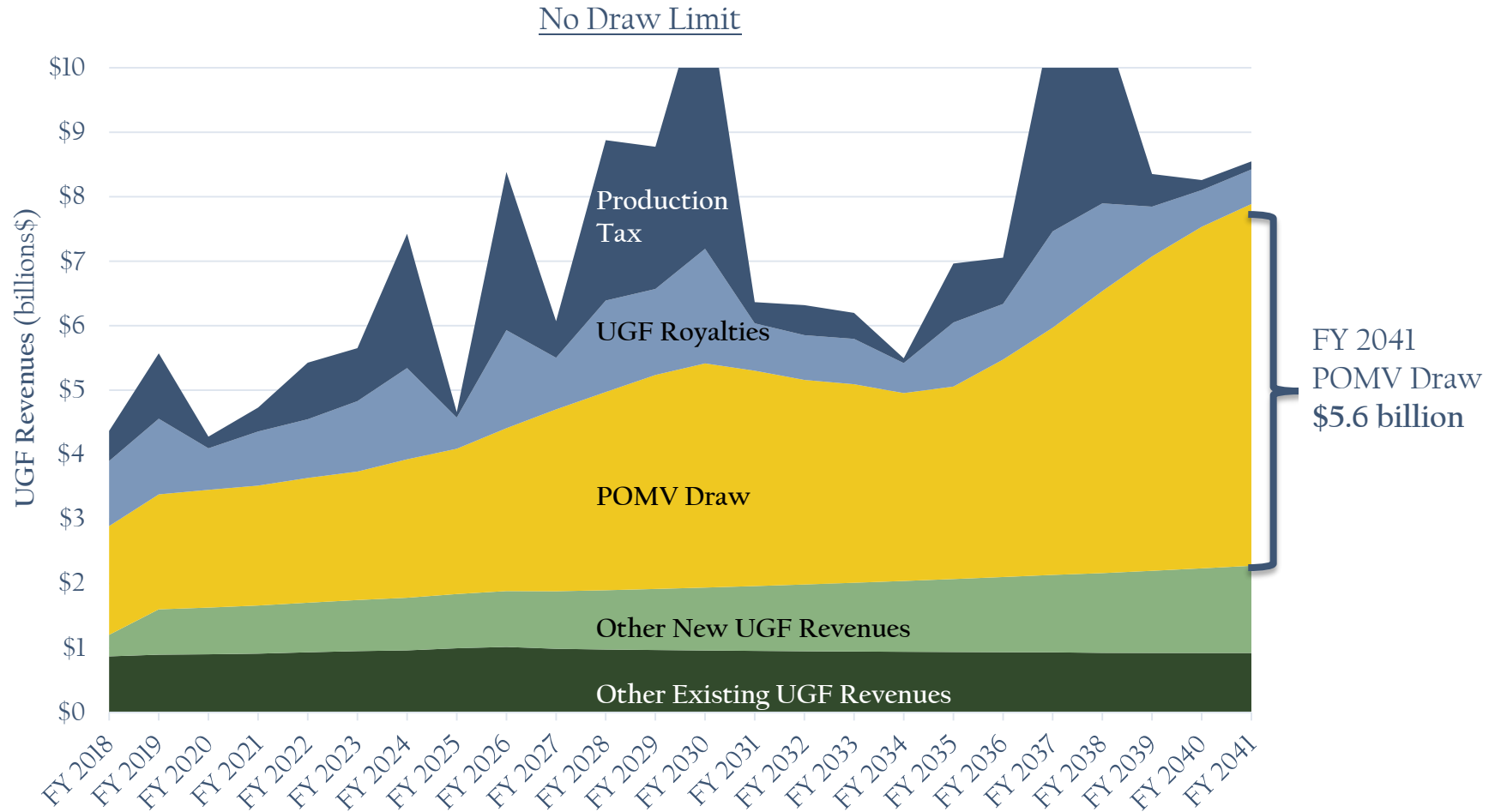


A formula that includes a draw limit:

- 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

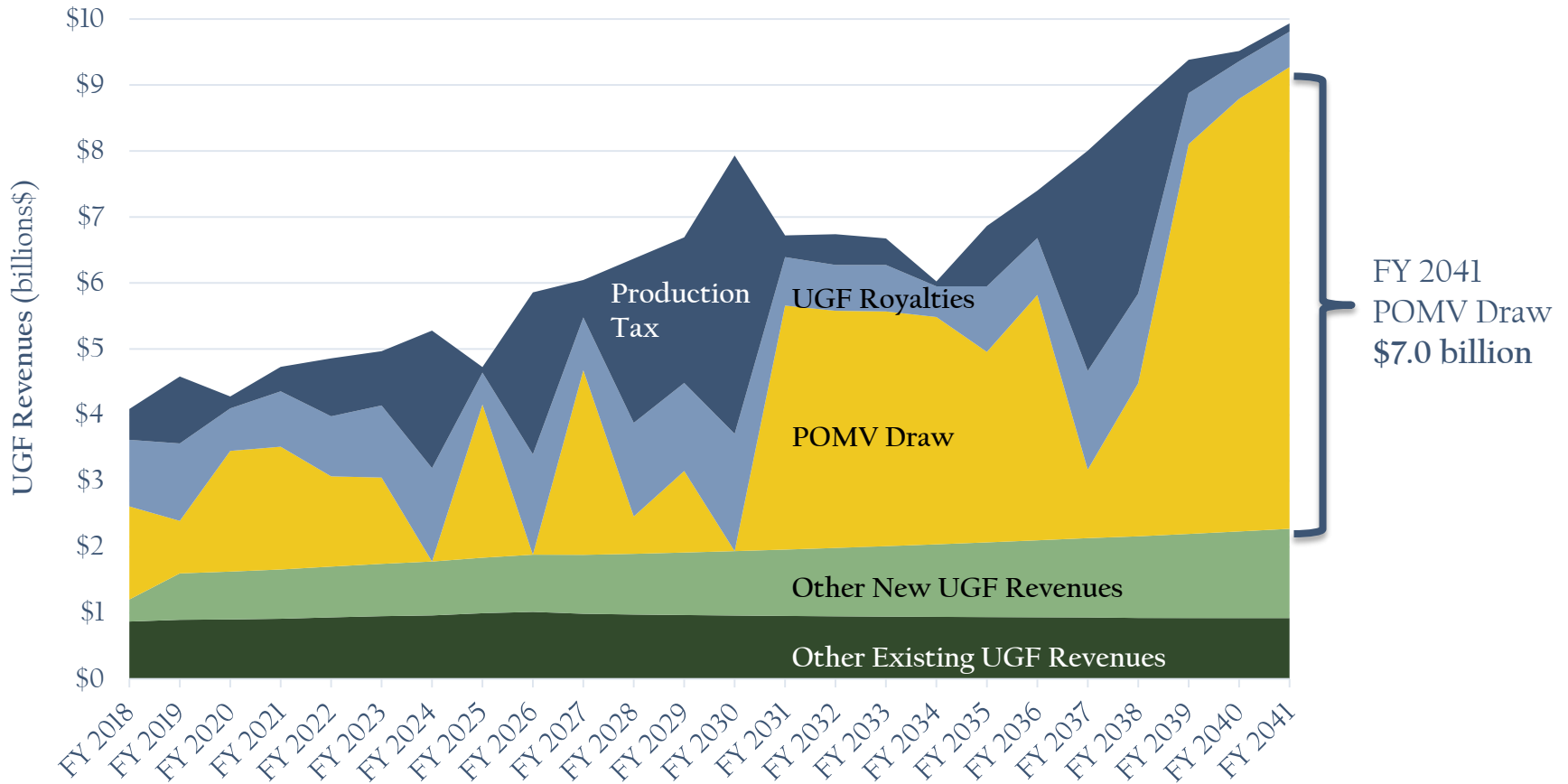


SCENARIO: UGF REVENUE WITHOUT DRAW LIMIT



SCENARIO: UGF REVENUE WITH DRAW LIMIT

Draw Limit with \$1.2B Threshold



Part V

CSSB 26 GENERAL FUND DRAW DURABILITY

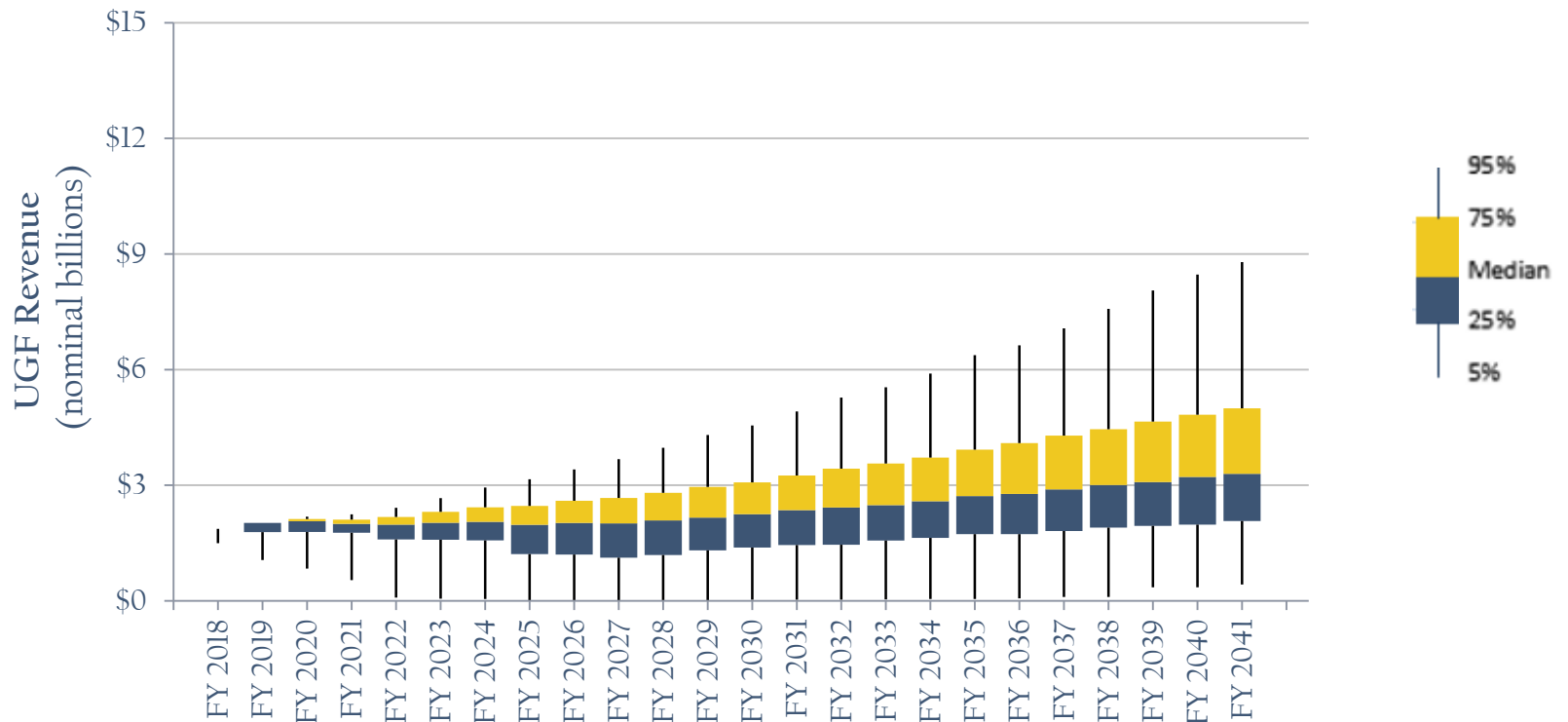
CSSB 26 GENERAL FUND DRAW

- Draw Calculation
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 - Draw Limit: The maximum POMV amount is reduced by \$1 for every \$1 that UGF royalties and production taxes exceed \$1.2 billion.



CSSB 26, FULL FISCAL PLAN

UGF Revenue



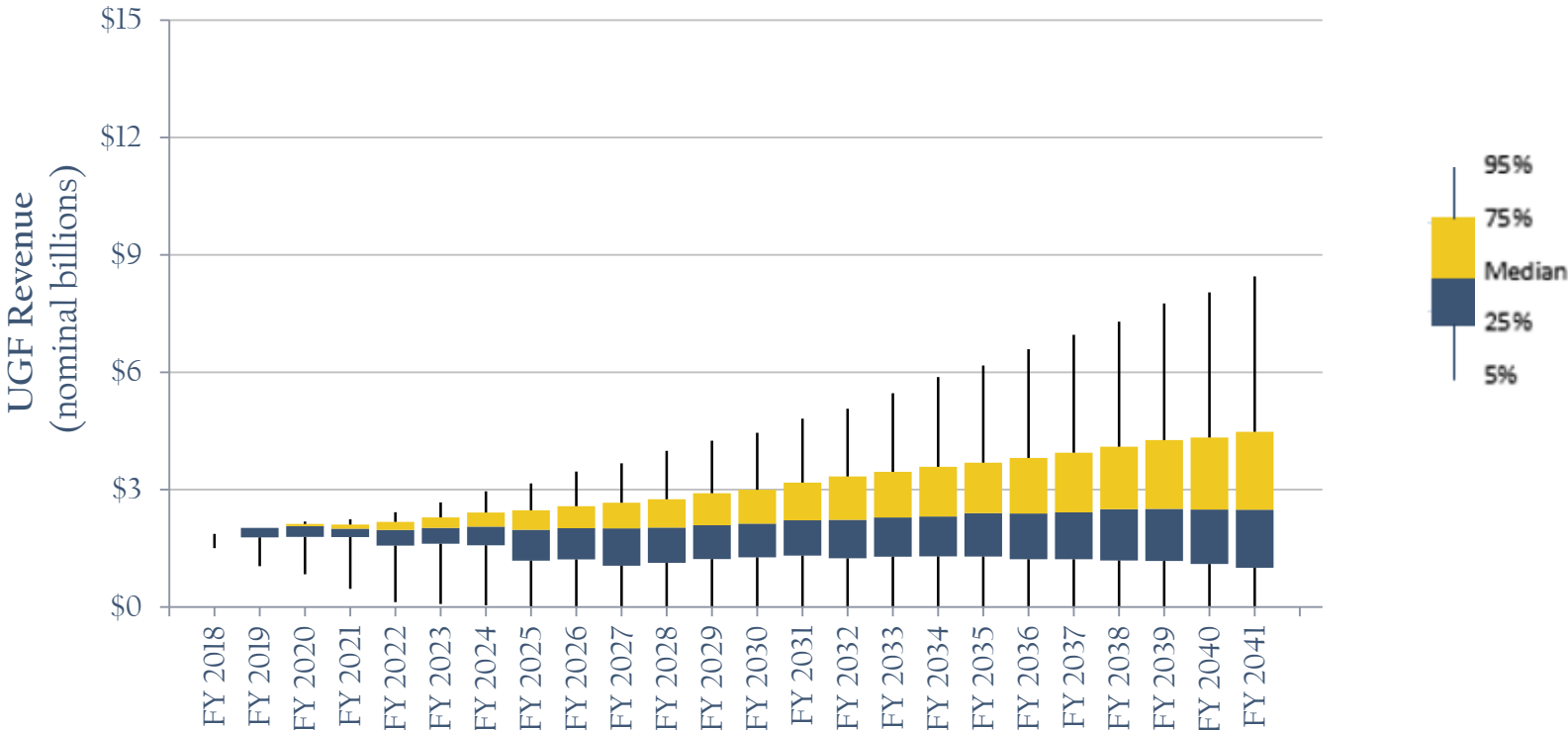
2018 median value: \$1,867

2041 median value: \$3,296 nominal
(\$1,954 real)



CSSB 26, NO FISCAL PLAN

UGF Revenue

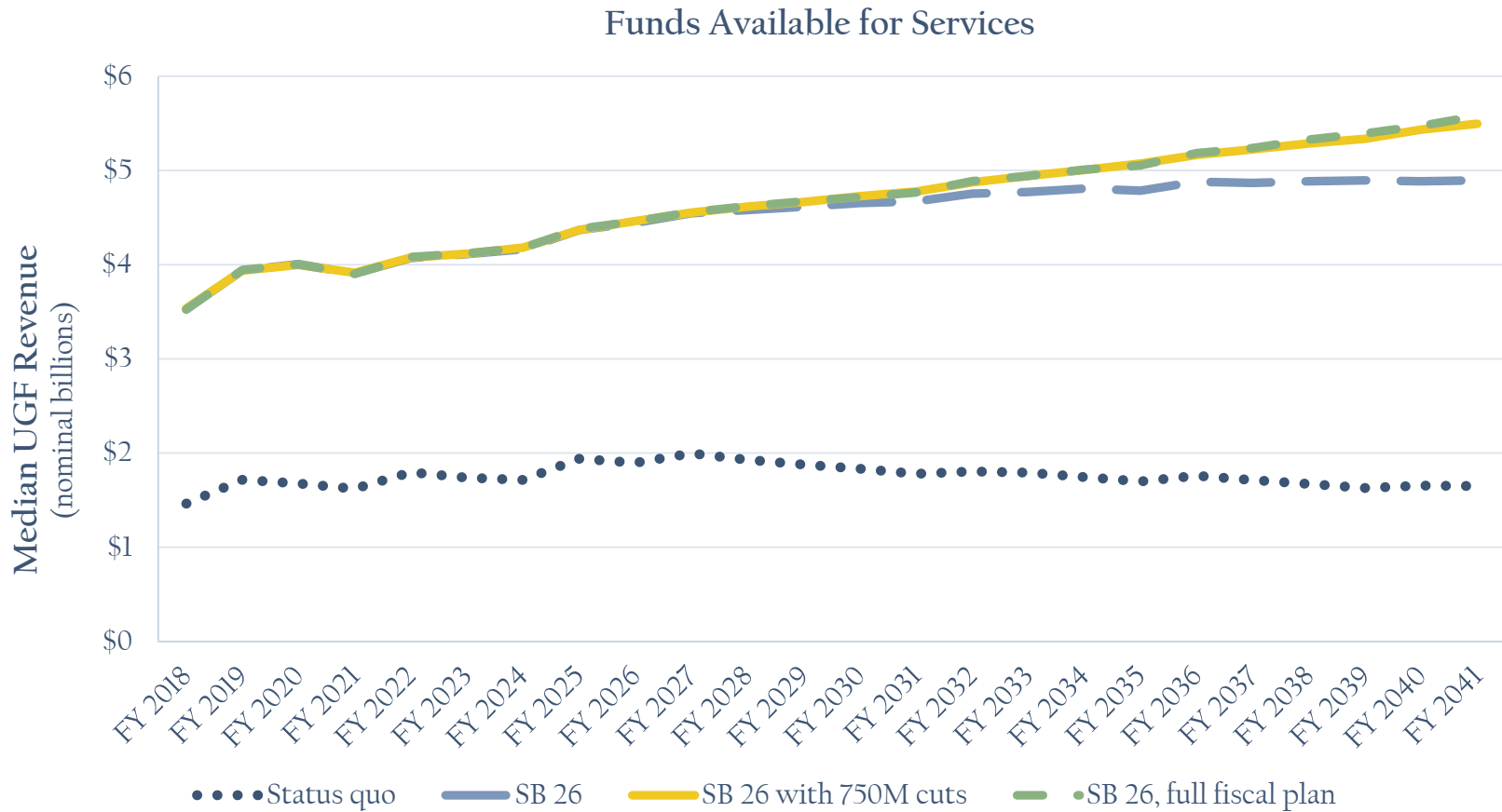


2018 median value: \$1,867

2041 median value: \$2,489 nominal
(\$1,475 real)



CSSB 26 MODELING COMPARISON: UGF REVENUE





Part VI

CSSB 26 DIVIDEND DURABILITY

CSSB 26 DIVIDEND FORMULA

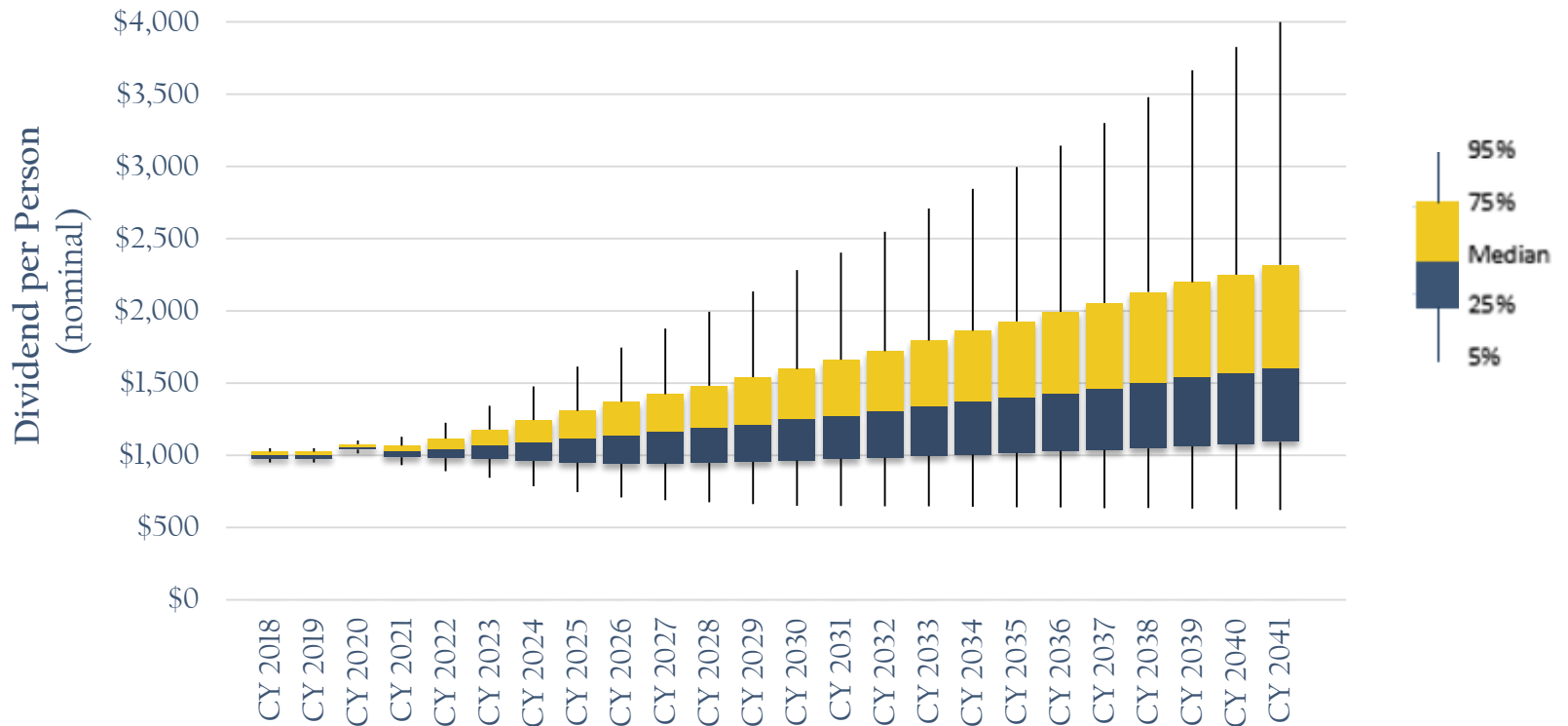
- **Dividend Calculation:**

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- 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).



CSSB26, FULL FISCAL PLAN

Dividends

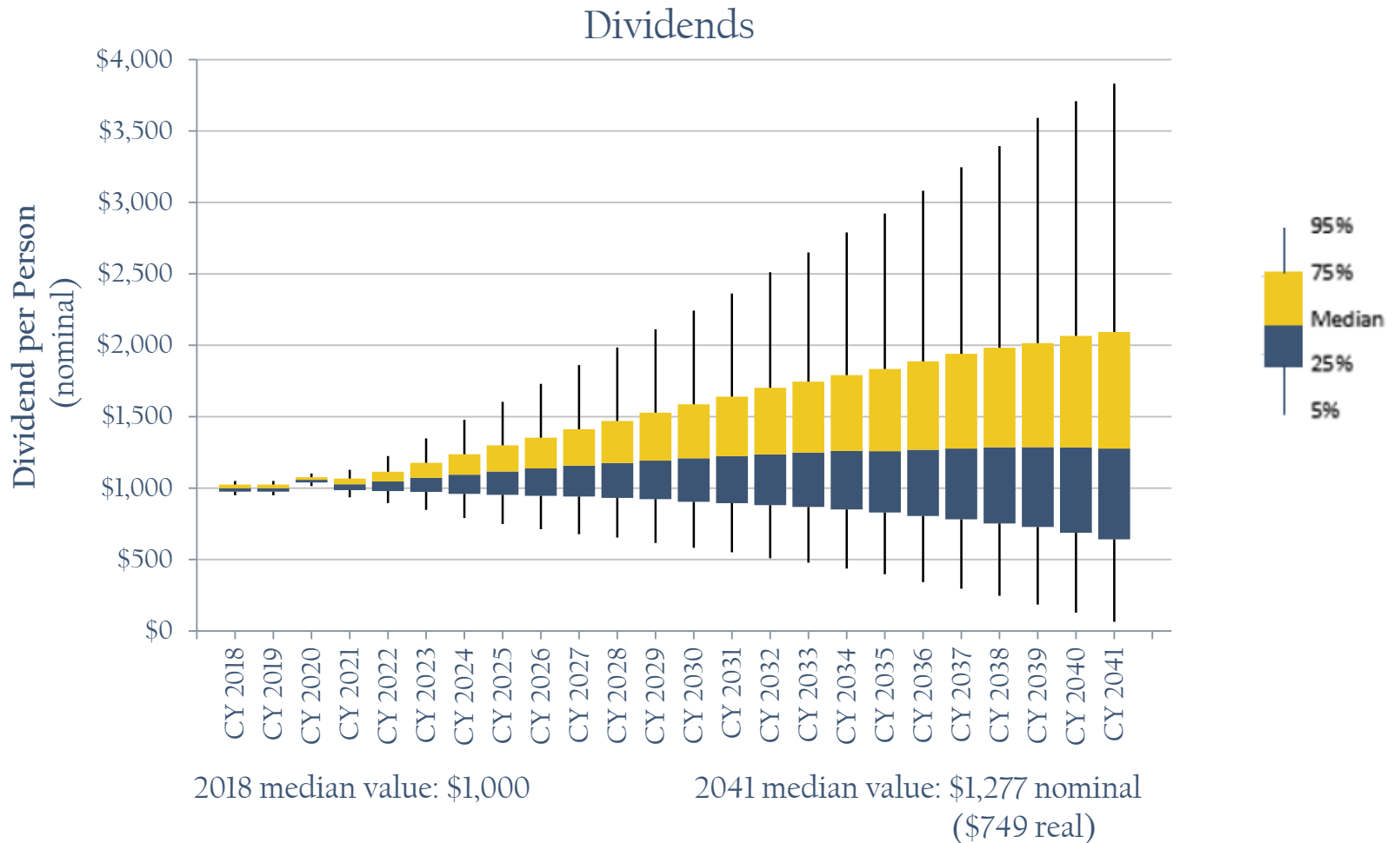


2018 median value: \$1,000

2041 median value: \$1,606 nominal
(\$941 real)

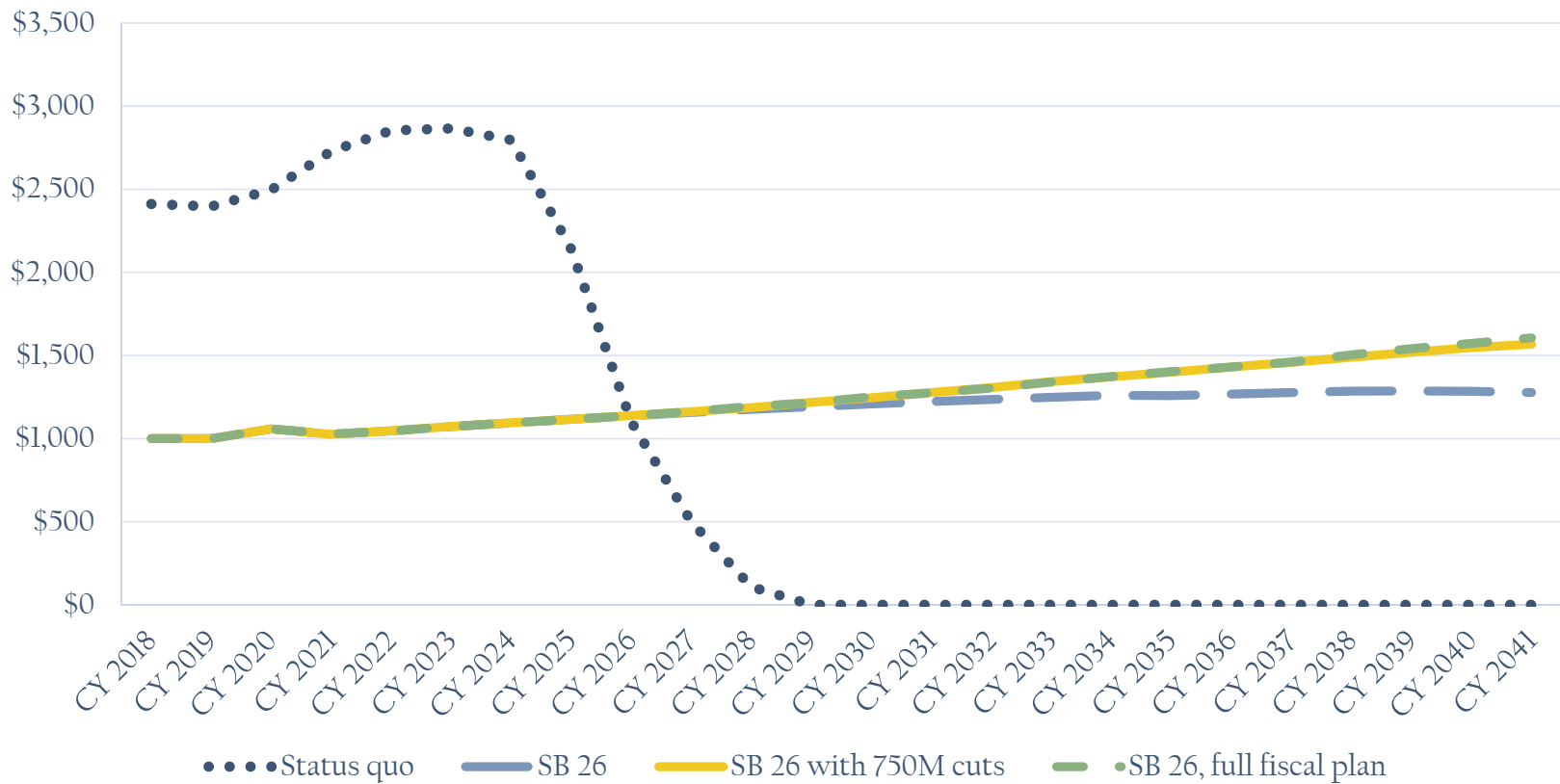


CSSB26, NO FISCAL PLAN



CSSB 26 MODELING COMPARISON: DIVIDEND

Nominal Dividend Per Person (Median)





Part VII

CSSB 26 INFLATION PROOFING & FUND DURABILITY

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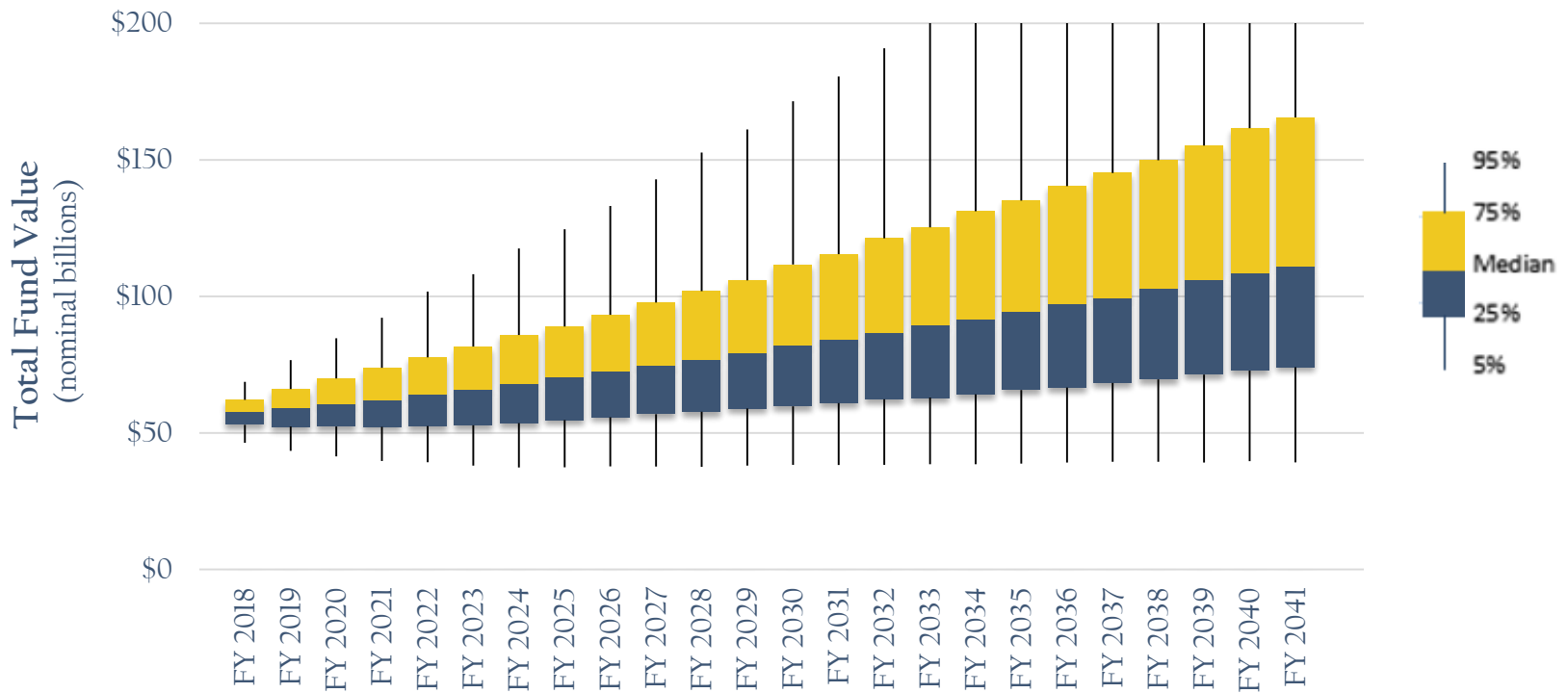
INFLATION PROOFING TRANSFERS

- 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



CSSB26, FULL FISCAL PLAN

Fund Size



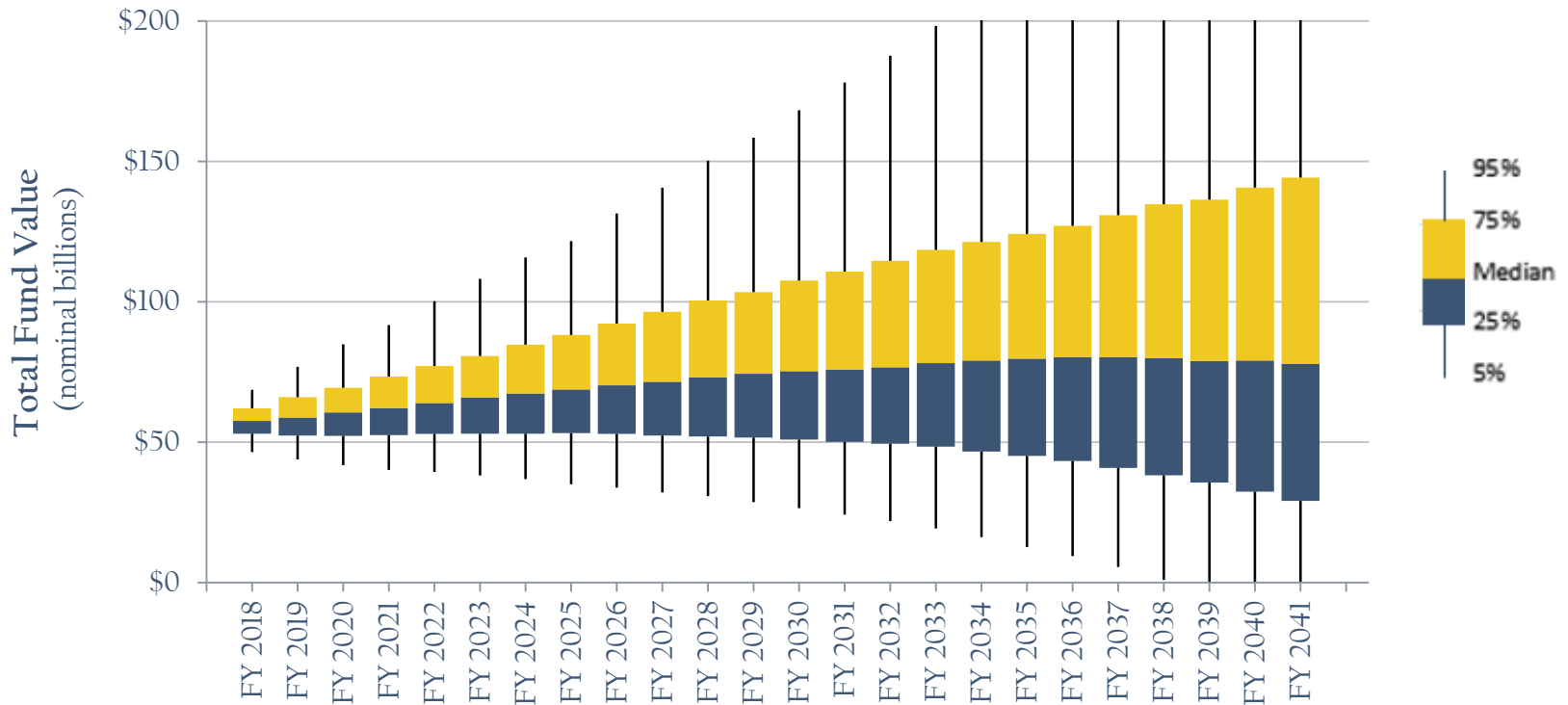
2041 median : \$111 billion nominal
(\$65 billion real)

ER Fail Rate over 24 Years: <1%



CSSB26, NO FISCAL PLAN

Fund Size



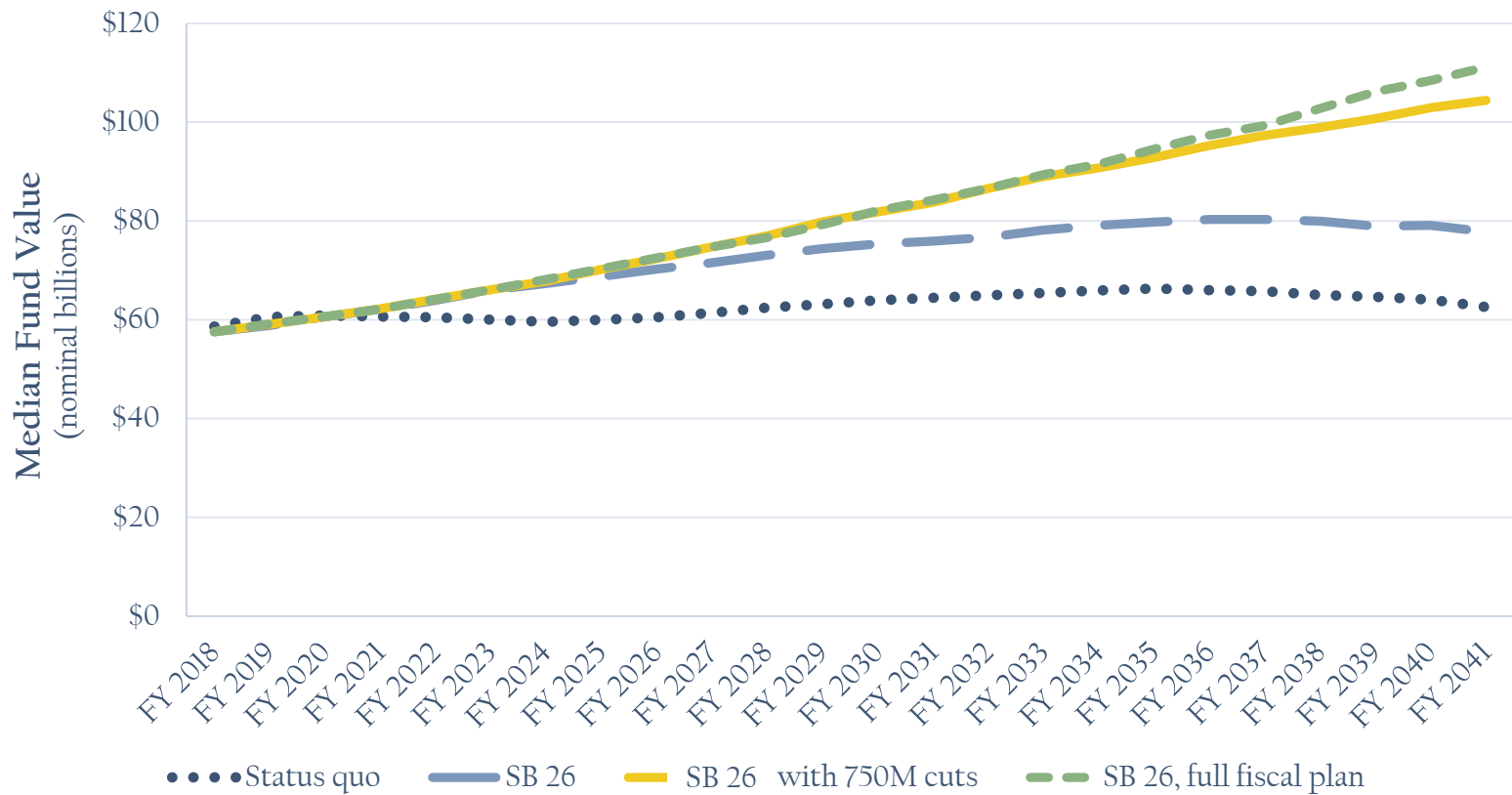
2041 median : \$78 billion nominal
(\$46 billion real)

ER Fail Rate over 24 Years: 46%



CSSB 26 MODELING COMPARISON: FUND SIZE

Nominal Fund Value





Part VIII

CSSB 26 CONCLUSION

CONCLUSION

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CONCLUSION

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Planned ERA Draws	N/A	\$1.9
Additional Measures required for a Full Fiscal Plan	\$2.8 billion	\$0.6 billion + Capital & Debt



CSSB 26

1. Provides a rule-based framework for use of permanent fund earnings
2. Stabilizes UGF revenues from petroleum and permanent fund earnings; also limits spending from all revenue sources
3. Protects the dividend
4. Protects the inflation-adjusted value of the permanent fund
5. Robust use of the earnings reserve

