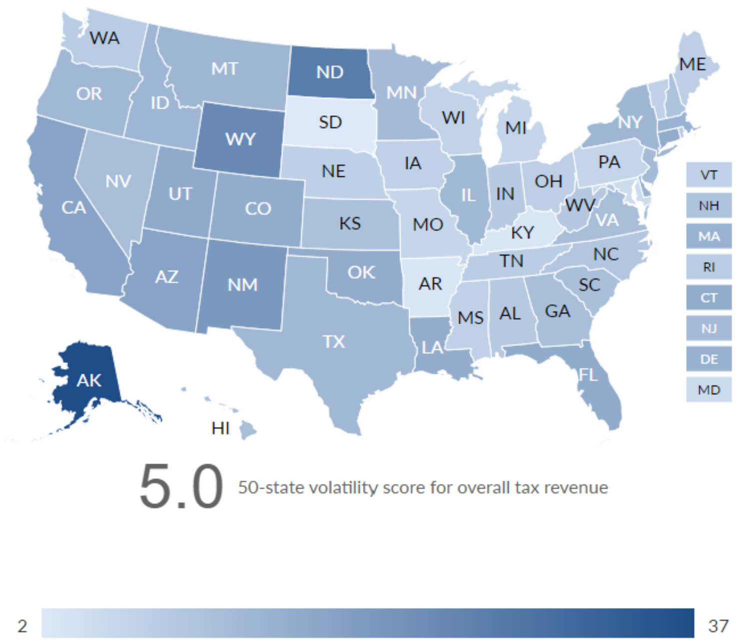
Oil and Gas Revenue Volatility and Enhancing Fiscal Stability

Presentation to the Revenue Stabilization and Tax Policy Committee
September 27, 2021

Revenue Volatility Differs Across States

- Each state relies on a unique mix of tax streams
- Underlying volatility often driven by factors outside of policymakers' control (e.g. economic factors, commodity prices, changes to federal policy, and unforeseen events)
- Between FY00-FY19, Pew found that severance taxes on oil and minerals and corporate income taxes were consistently more volatile than other major state taxes

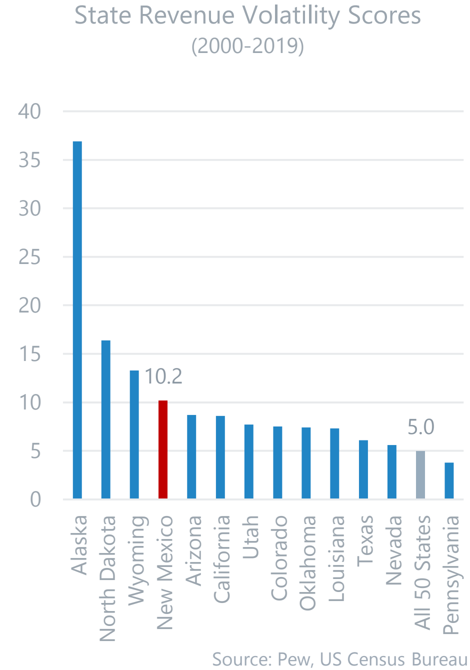
Volatility scores based on FY 2000-19 collections, adjusted for tax policy changes



Source: Pew Charitable Trusts, "Tax Revenue Swings Complicate State Budgeting", October 2020

New Mexico's revenues are among the most volatile in the nation

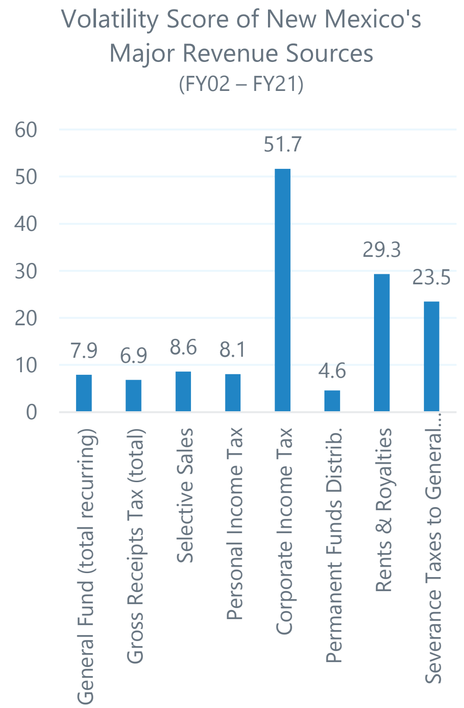
- Revenue volatility score – mathematical representation of volatility across revenue sources
  - Calculated based on the standard deviation of the revenue's annual percent change
  - Higher scores = more volatile
- New Mexico's revenue volatility is the 4th highest in the nation, but less volatile than other oil-rich states like Alaska, North Dakota, and Wyoming
  - NM's revenue volatility score is more than double the national average



Source: Pew Charitable Trusts, "Tax Revenue Swings Complicate State Budgeting", October 2020

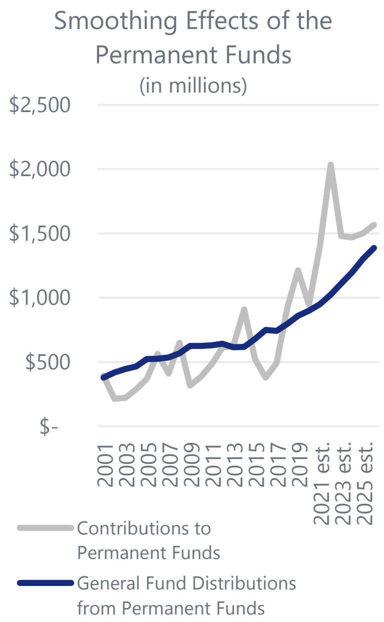
Sources of NM Revenue Volatility

- Corporate income tax collections are most volatile, but make up a small portion of general fund revenues
- Federal royalty payments and severance taxes are the largest sources of general fund revenue volatility
- Permanent fund distributions are the least volatile source of general fund revenue



Permanent Fund Distributions Enhance Fiscal Stability

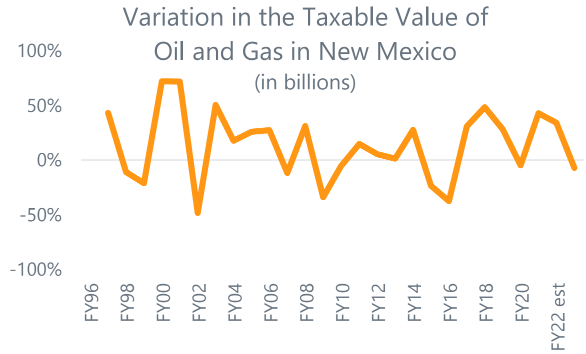
- Distributions from the land grant and severance tax permanent funds are one of the most stable and reliable revenue streams to the general fund
  - Royalties for oil and gas production on state lands flow to the land grant permanent fund
  - Severance tax collections not used for bonding flow to the severance tax permanent fund
- Distribution formula makes this revenue source easily predictable for the upcoming budget year
- Smooths fluctuations in market activity, largely insulating the general fund from sudden shocks
  - Severance tax and royalty collections experience large swings based on changes in prices and production
- Provides an intergenerational revenue streams that allows current resource extraction to benefit future New Mexicans

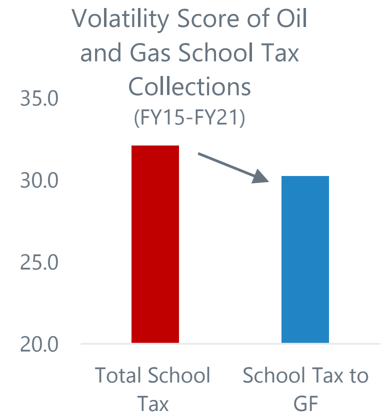


Note: Contributions include royalties from production on state lands and transfers from severance taxes in excess of bonding capacity

Recent Additional Steps to Reduce Volatility

- Because severance taxes and royalties are the most volatile sources of general fund revenue, lawmakers enacted stabilization features in the 2017 and 2020 sessions
- 2017 legislation to send above-average oil and gas school tax revenue (the general fund's largest severance tax) to a budget stabilization fund beginning in FY19 is working to reduce general fund energy revenue volatility
  - Excess revenue flows into the tax stabilization fund ("rainy day fund") until reserves reach 25%, then to the early childhood trust fund
  - Measurable reduction in the volatility score of general fund oil and gas school tax collections
- 2020 legislation to send above-average federal royalty payments to the early childhood trust fund beginning in FY22 will further reduce general fund energy revenue volatility

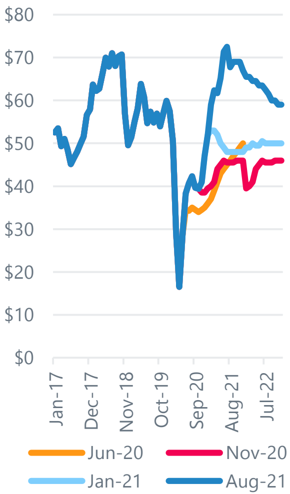




Distributions of excess revenue partially insulates the general fund from market fluctuations…

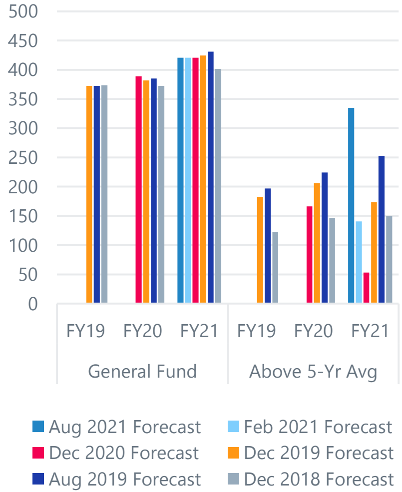
- Changes in price forecasts and production estimates first affect expected distributions of above-average revenue, before affecting the general fund
- Despite large fluctuations in oil and gas prices and production, revenue estimators were able to project oil and gas school tax collections to the general fund with significantly less variability

Change in Oil Price Forecasts



Source: U.S. Energy Information

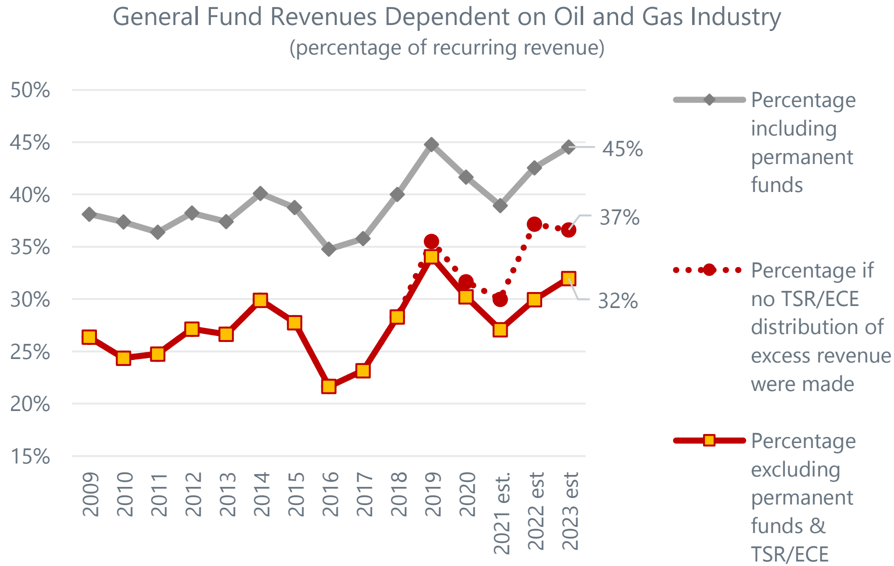
Change in Oil and Gas School Tax Forecasts



Source: Consensus Revenue Estimates

…And Reduces General Fund Dependence on Oil and Gas Revenue

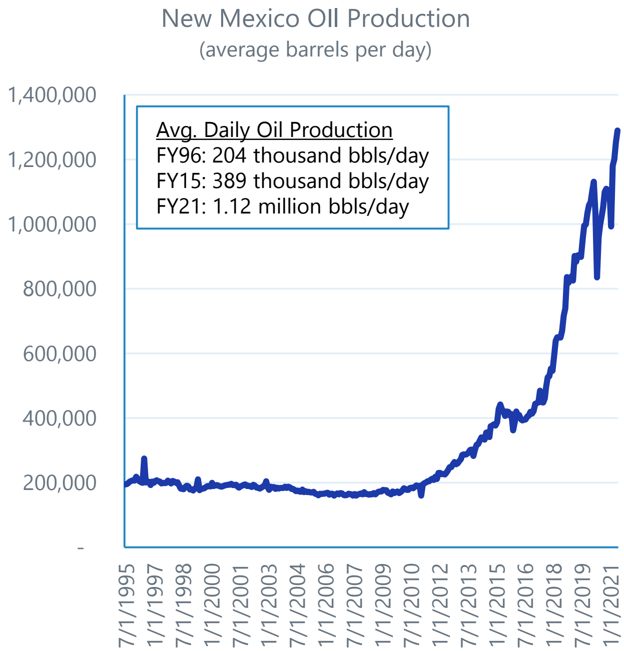
- Oil and gas revenue dependence less than would be without distribution of windfall revenue
- However, dependence on oil and gas related revenues remains above historical averages due to historic production levels and elevated prices

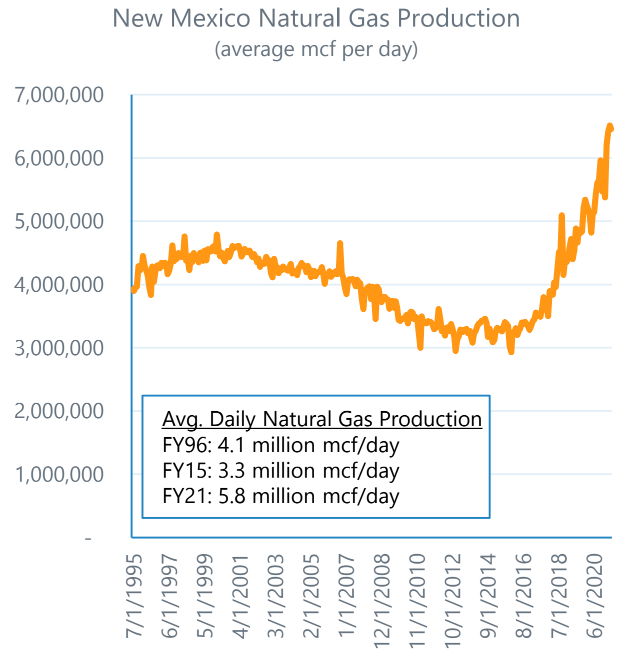


Note: Includes severance taxes, federal royalty payments, and select GRT revenue. Note, oil and gas school tax revenue in excess of the five-year average is distributed to the tax stabilization reserve (TSR) or early childhood trust fund, and federal mineral leasing revenue above the five-year average distributed to the early childhood trust fund.

Source: LFC Consensus Revenue Brief, August 2021

New Mexico Oil and Gas Production is at an All-time High…

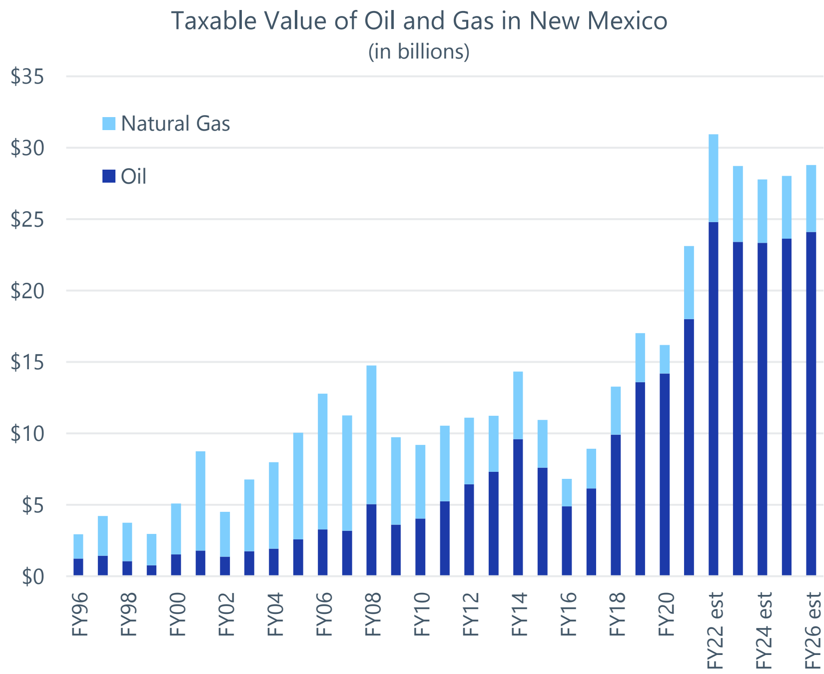




Source: TRD's GenTax Reports

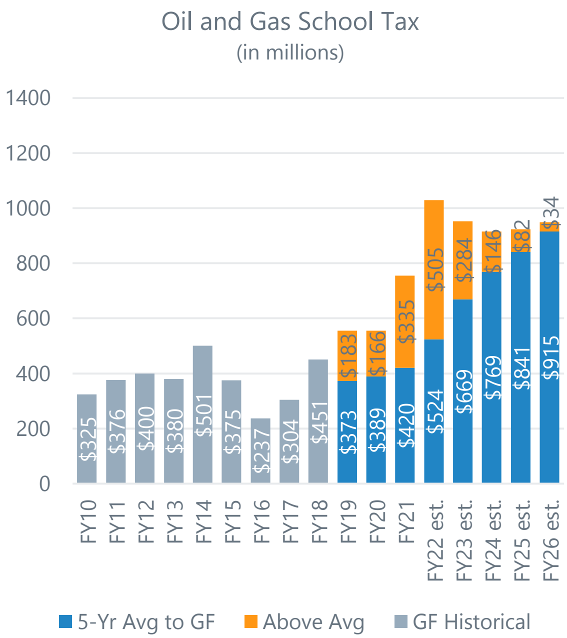
…Leading to Record-High Production Value…

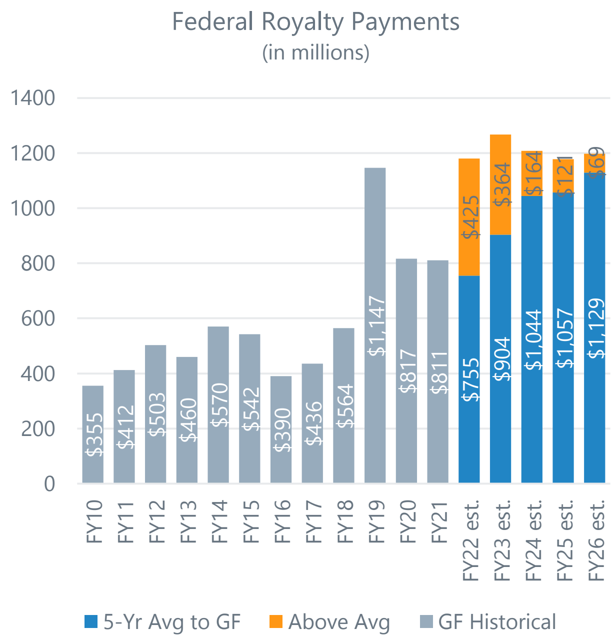
- Taxable value of oil and gas in FY21 was up 74% from FY18 and up over 110% from FY15
- FY22 taxable value projected to grow 34% due to high prices and record-breaking production



Source: GenTax, August 2021 Consensus Revenue Est.

…And Record-High Expected Revenue Collections from Oil & Gas





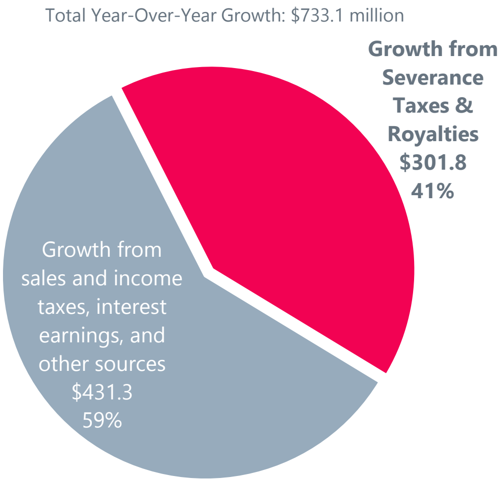
Benefits of Distributing Excess Oil and Gas Revenues to Budget Stabilization Funds

- Reduces general fund revenue volatility
- Reduces general fund revenue estimating uncertainty
- Mitigates market fluctuations and reduce general fund impacts
- Captures windfalls to save for future market crashes

Exercising Caution when Growing Recurring Budgets

- While saving windfall revenue helps, general fund distributions of oil and gas revenues are still expected to increase in the short- to medium-term
  - About 40 percent of the year-over-year general fund revenue growth in FY23 is due to growth in severance taxes and federal royalty payments, even after accounting for distributions above the five-year average
- Expectations for high oil and gas revenue collections or continued increases may not be sustainable
  - Using oil and gas revenue growth to increase recurring budgets keeps general fund dependence on oil and gas high, and could make facing a future energy transition more difficult

FY23 General Fund Revenue Growth
(growth from FY22, dollars in millions)



Source: August 2021 Consensus Revenue Estimate

Benefits of Building (and Using) a State Rainy Day Fund

- Helps states avoid cutting state programs that people rely on during economic downturns
- Buys the state time, especially when economic outcomes are uncertain
- Preserves spending capacity during downturns and reduces need for tax increases or budget cuts
- Enhances state credit ratings
- Good rainy day fund design allows for deposits during periods of surplus, and withdrawals during period of decline
- New Mexico's rainy day fund design allows spending during revenue downturns
  - Prevented severe budget cuts during the depths of the Covid-19 pandemic and related oil market crash
  - Enabled spending for pandemic relief and economic stimulus in the 2021 session

New Mexico Currently Engages in Multiple Rainy Day Fund Best Practices

Options for Rainy Day Fund Enhancement

- Establish formulas directing when and how reserves can be tapped
- Enact rules that require offsetting budget action in conjunction with rainy day fund withdrawals over certain amount
- Enact measures that reserve funds be repaid after being tapped
- Establish a reasonable and reliable schedule for replenishing rainy day funds after withdrawals
- Specify a revenue source or sources to provide money automatically for rainy day funds
- When the economy is expanding and revenues are surging, deposit any resulting surpluses into the rainy day fund
- Consider the volatility of tax revenues when calculating the adequacy of reserves
- Deposit excess cash into the rainy day fund when revenues exceed a predetermined amount
- Use data on historical revenue trends to help stock the rainy day fund
- Require a supermajority vote of the legislature if money is to be withdrawn for purposes other than an economic downturn, health or safety emergency, or unexpected revenue shortfall

Note: Blue indicates measures already practiced in New Mexico

Source: Barrett & Greene (2019), Rainy Day Fund Strategies, prepared for the Volcker Alliance

Using Stress-Tests to Inform Reserve Targets

- Rainy day funds help the state prepare for oil and gas market shocks and economic downturns
- Reserve levels should be adequate, but also justifiable (stress-tests can inform this)
- Stress-testing of the general fund revenues shows the state, on average, needs:
  - About 20 percent of recurring appropriations is needed in reserves to withstand an oil price shock lasting the current fiscal year and budget year
  - During a prolonged price collapse, about 30 percent in reserves is needed to support budgets for the budget year and following fiscal year

Low Oil Price Stress Test Scenario - Revenue Difference from Baseline Forecast				
Forecast	**Current FY**	**Budget FY**	**Following FY**	**Total**
Aug 21 CREG	$ (354)	$ (1,024)	$ (1,275)	$ (2,653)
Feb 21 CREG	$ (378)	$ (1,009)	$ (1,255)	$ (2,642)
Dec 20 CREG	$ (236)	$ (473)	$ (353)	$ (1,062)
Dec 19 CREG	$ (365)	$ (940)	$ (1,160)	$ (2,465)
Aug 19 CREG	$ (470)	$ (1,205)	$ (1,415)	$ (3,090)
Dec 18 CREG	$ (475)	$ (1,275)	$ (1,350)	$ (3,100)
Aug 18 CREG	$ (525)	$ (1,250)	$ (1,150)	$ (2,925)
Average	**$ (400)**	**$ (1,025)**	**$ (1,137)**	**$ (2,562)**
Note: dollars in millions				

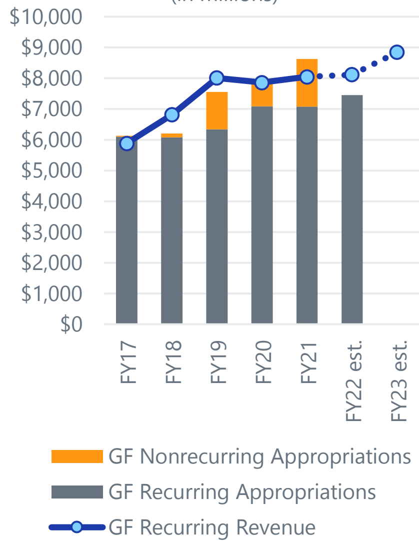
Low Oil Price Scenario Revenue Decline as a Percentage of Current Fiscal Year Recurring Appropriations						
Forecast	**Current Fiscal Year**	**Current FY Approp.**	**Budget FY Only**	**Current FY & Budget FY**	**Budget FY & Following FY**	**Current FY, Budget FY, & Following FY**
Aug 21 CREG	FY22	$ 7,449.9	14%	18%	31%	36%
Feb 21 CREG	FY21	$ 7,072.9	14%	20%	32%	37%
Dec 20 CREG	FY21	$ 7,072.9	7%	10%	12%	15%
Dec 19 CREG	FY20	$ 7,092.1	12%	18%	30%	35%
Aug 19 CREG	FY20	$ 7,092.1	15%	24%	37%	44%
Dec 18 CREG	FY19	$ 6,339.8	17%	28%	41%	49%
Aug 18 CREG	FY19	$ 6,339.8	17%	28%	38%	46%
		Average	**14%**	**21%**	**31%**	**37%**
Source: Consensus Revenue Estimates, LFC Post-Session Reports						

Note: "Budget year" refers to the upcoming fiscal year budget that will be set in the next legislative session

Balancing Reserves with State Needs

- In recent years, the state has been able to maintain adequate reserves and make a significant number of statewide investments
- In addition to building budget stabilization funds, policymakers used surplus revenues from FY19-FY21 to fund:
  - Instructional materials and educational system improvements
  - Educational endowment, scholarship, and loan repayment funds
  - Tribal infrastructure and educational programming needs
  - Roads and infrastructure projects
  - Economic development projects
  - Backfilling other state funds that were tapped in previous downturns
  - Pandemic relief and economic stimulus
- Given the August 2021 consensus revenues estimate, lawmakers will have a similar opportunity in the 2022 session

General Fund Revenue and Appropriations
(in millions)

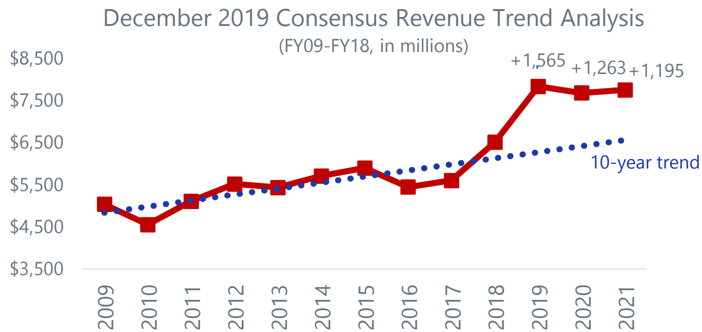


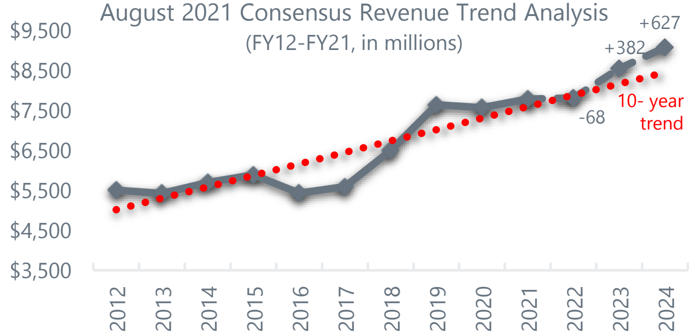
Fiscal Year	Nonrecurring Appropriations
FY19	$1.22 Billion
FY20	$833 Million
FY21	$1.56 Billion

Source: LFC Post-Session Reports

Using Trend Analyses to Inform Budget-Making

- Trend analysis of the December 2019 revenue estimate showed projections were over $1 billion above trend
  - Although recurring budgets for FY20 were increased by 12%, lawmakers exercised fiscal restraint by not allocating all of the projected revenue increase (18%) to recurring expenditures, using some of the additional revenue for one-time statewide investments
- Trend analysis of the August 2021 revenue estimate shows current projections are above-trend
  - However, if excess oil and gas school tax and federal royalty payments above the five-year average were not distributed to budget stabilization funds, the estimates would be even higher above trend





Note: Major revenue sources include sales taxes, income taxes, severance taxes, rents and royalties, and investment income.

Source: Consensus Revenue Estimates

Summary of Practices that Enhance Fiscal Stability

- Using stress-testing to assure adequate and justifiable resources in reserve
  - Maintaining reserve levels to withstand a crash in some of the general fund’s largest and most volatile sources of revenue
  - Using reserves during periods of economic or revenue decline
- Avoid committing short-term gains to long-term obligations
  - Distributing volatile and windfall revenues to budget stabilization funds
  - Using trend analyses to inform recurring budget growth
- Consider using general fund growth in oil and gas revenue for nonrecurring investments
  - Reduces general fund/recurring budget dependence on oil and gas revenue
  - Some options include:
    - Distributions into interest-earning accounts that redistribute to the general fund
    - Statewide nonrecurring expenditures to meet long-standing needs, support transformational change, or prepare for an energy transition

Dawn Iglesias, Principal Fiscal Analyst
Senate Majority Office
Dawn.Iglesias@nmlegis.gov
505-986-4264

Questions?