

RatingsDirect®

Summary:

Wyoming; Miscellaneous Tax

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Long Term Rating	AA+/Stable	Affirmed	

Rating Action

S&P Global Ratings affirmed its 'AA+' rating, with a stable outlook, on the State of Wyoming's series 2012A state loan and investment board tax-exempt capital facilities refunding revenue bonds and series 2012B taxable capital facilities refunding bonds, and its 'AA+' rating on the Wyoming State Loan & Investment Board's (formerly known as the Farm Loan Board) series 1992 farm loan board bonds.

The state loan and investment board bonds are secured by a first lien on a portion of the mineral royalties Wyoming receives from the federal government that go to the state school foundation program and the highway fund, currently 71.05% of the first \$200 million of state federal mineral royalties.

The bonds are separately secured from bonds issued by the Trustees of the University of Wyoming facilities improvement bonds series 2011B, 2012A, and 2012B, which we rate 'AA-', and are secured by a separate allocation of a different portion of state-received federal mineral royalties.

Credit overview

We anticipate debt service coverage (DSC) by federal mineral royalties will remain very high, especially because oil and natural gas prices have risen substantially since the state made its last federal mineral royalty projection, despite the Biden administration's temporary moratorium on new federal mineral leasing and drastic restriction on the amount of land available for new leasing. Federal leases typically run for long terms, and the moratorium has not had a significant near-term impact on federal mineral royalties for the state, which have taken a sharp upturn as oil and natural gas prices increase. The Biden administration has also discussed a potential increase in the royalty rate for new leases, half of which increase would be shared with the state. The state expects two new tracts to be available for federal leasing next month.

Credit risk associated with the potential for federal action to reduce mineral royalty collections, or the proportion of royalties shared with the state, is inherent in the bond structure. In our opinion, the federal government's long record of support for the program offsets these risks. Since the distribution of federal mineral royalties to states began in 1920, the federal government has changed the allocation to states only once, in 1976, and that was to increase it, although there were temporary reductions in distribution of federal mineral royalties to the states during the Obama administration due to federal across the board spending sequestration as part of a prior budgetary agreement.

The 'AA+' rating on the state loan and investment board debt reflects what we view as:

- A large property tax base generating the pledged federal mineral royalties that consists of extensive trona, oil, coal, and natural gas reserves;
- The stability of federal revenue distribution formulas;
- Very high 106x coverage of state loan and investment board maximum annual debt service (MADS) by fiscal 2021 pledged revenues. Although we anticipate swings in coverage due to the cyclicality of oil and natural gas prices and production, we expect coverage will remain very high;
- · The loan and investment board's history of restrained debt issuances; and
- Strong bond provisions, including an additional bonds test that requires one-year historical MADS coverage of 3x.

Offsetting factors, in our opinion, include:

- The dependence of federal leasing activity on cyclical mining activity; and
- Potential state or federal changes in the allocation of the federal mineral royalties pledged to the guarantee program.

The stable outlook on state loan and investment board federal mineral royalty secured debt is predicated on our expectation of Wyoming's continued very strong DSC on federal mineral royalty secured debt. The rating also anticipates no major adverse changes in federal and state laws that distribute federal mineral royalties.

Environmental, social, and governance

Environmental risks for the federal mineral royalty guarantee pledge stem from the state's high concentration in the coal, oil, and natural gas industry, and potential for increasing economic challenges as utilities switch to natural gas from coal, and to renewable energy sources. We view Wyoming's social and governmental risks as neutral factors.

Stable Outlook

Downside scenario

We could lower the rating if the state allowed substantial additional debt issuance to be secured by pledged federal mineral royalties and such debt was subsequently issued in an amount that materially lowered DSC; or by the federal government enacting a significant adverse change in the royalty distribution formula, long term moratoriums on new federal leases that lasted longer than one federal administration, federal timing delays in receipt of federal mineral royalties, or royalty tax credits given to companies for an extended period of time in an amount that materially affected annual DSC.

Upside scenario

An upgrade would be predicated on our raising our issuer credit rating (ICR) on Wyoming under our criteria that link the federal mineral royalty rating to no more than one notch above the state ICR. Even if we raised the state ICR, however, an upgrade on the federal mineral royalty bonds is likely precluded by the statutory nature of the pledged guaranteed revenue distribution formula, and the possibility that a change in federal mineral royalty allocations could potentially materially change the level of pledged revenues, although we see this as unlikely based on the previous history of revenue distributions.

Credit Opinion

Distribution of federal mineral royalties

The federal government collects a 12.5% royalty on the productive value of new leases to mine oil, natural gas, or coal on federal lands, and a 4.0% royalty for new trona mining leases for 10 years beginning Jan. 1, 2021. However, the current administration is raising the royalty rate to 18.75% on new leases. Half of the royalty money is shared with the state and the increased money would come in slowly. However, the amount of land has been drastically reduced subject to new leasing. Because leases are long term, the effect on revenues would phase in slowly. There have been no new leases in Wyoming under the Biden administration to date although two are expected in the new term. The U.S. owns approximately 49% of Wyoming's land and 68% of the state's mineral rights, although about 11% of U.S. land in the state is designated as wilderness areas off limits to mining. Under provisions of the Mineral Leasing Act of 1920, the federal government gives each state a portion of the mineral royalties it collects from mines located on federal lands in Wyoming. The act was amended in 1976 to increase the state's share to 50.0% from 37.5%. Subsequently, the federal government implemented a 2% collection fee before distributing royalty payments to states.

The president issued a sequestration order on March 1, 2013, in accordance with the Balanced Budget and Emergency Deficit Control Act as amended. In late October 2013, the Department of The Interior began the practice of repaying the state for federal mineral revenues sequestered during the prior federal fiscal year, with the result that federal sequestration had no net long-term impact on collection of revenues, although there was a minor short-term impact.

Pursuant to state statutory law, from the first \$200 million of federal mineral royalties received, Wyoming allocates 44.80% of its royalties to its public school foundation program account and 26.25% to its highway fund. Together, the state's allocation to these two funds constitutes pledged revenues, at a combined 71.05% allocation from the first \$200 million federal mineral royalties received. Since fiscal 1999, state officials have been diverting federal mineral royalties to the school foundation program from the highway fund and have been offsetting the diversion with a like amount of additional fuel tax revenues. Net pledged revenues, however, were not changed. Revenues pledged to pay debt service do not include any one-time bonus lease signing payments received from the federal government attributable to coal, oil shale, and geothermal leases of certain federal land within Wyoming.

Wyoming could change by state statute the proportion of federal royalties it allocates to the public school foundation program account and the highway fund. It increased the royalties it allocates to the program account in 1988, to 44.8% from 34.5%, to offset potential declines in royalties. The state temporarily diverted a portion of federal mineral royalty payments traditionally directed to the highway fund to the general fund in the 2017-2018 biennium, before allocating them back to the highway fund in fiscal 2019. The allocation to the school foundation program alone in these years remained more than \$200 million, however, and the amount of revenue available to pay debt service was not affected.

Revenue volatility: High

Federal mineral royalties distributed to the state show high volatility, in our opinion. Wyoming royalty revenue is derived largely from leases for oil, natural gas, coal, and trona on federal land. Mineral royalties show large year-to-year swings in revenue, while the potential also exists for changes in the federal distribution formula to states, and in the state statutory distribution between different levels of government and state uses. In 2013, federal budget

sequestration temporarily reduced federal distribution of royalty payments by about 7%, although the federal government later made up for the shortfall.

Total Wyoming federal mineral royalties (excluding coal bonus payments) rose 9.7% in fiscal 2014, declined 13.1% in 2015, declined another 30.0% in 2016, rose 20.3% in 2017, declined 5.7% in 2018, and rose 17.0% in 2019 to \$639.9 million. The state saw a 23.7% mineral royalty revenue decrease in fiscal 2020 and a 4.2% decrease in 2021. The state projects an increase of 13.4% in 2022, before forecasting a fall of 13.5% in fiscal 2023. The state projects mineral royalties will hit bottom at \$429.2 million in fiscal 2024, of which 71.05% of the first \$200 million is available as pledged revenue.

The January revenue forecast assumed a \$60 per barrel price of oil in calendar 2022 and \$55 in calendar 2023, which are currently well below market prices. However, the long-term forecast for oil and natural gas prices and production remains murky and may be subject to substantial revision, particularly if alternative energy sources grow.

Coverage and liquidity: Very strong

Using just the first \$200 million of mineral royalties allocated per statute to pledged funds, of which 71.05% is pledged to debt service, yields pledged revenue of \$142.1 million. This covered combined MADS of \$3.5 million in 2021by 21x. Using 71.05% of the entire \$468.026 million of federal mineral royalties (excluding coal bonus payments) collected in fiscal 2021 (of which only the first \$200 million is actually allocated toward the funds paying debt service) would yield pro forma coverage of 106x, which we view as very strong.

Bond covenants include a 3x MADS coverage test to issue additional parity debt. Wyoming has no plans at present to issue additional parity debt.

The state loan and investment board bond structure does not include a debt service reserve. The flow of funds, however, requires payment of the full following year's debt service 20 days before the bond year begins, timed to collect a quarterly distribution of revenues into the pledged funds. Because current quarterly payments easily cover MADS, the debt service fund effectively holds a full year's debt service in advance as long as annual DSC exceeds 4x.

Economic fundamental: Strong to very strong

We view Wyoming as having strong to very strong economic fundamentals, although we also believe federal mineral royalty revenue is derived from a more concentrated economic base than that of the state as a whole.

The state's economy is predominantly resource-based, with mining (coal, oil, natural gas, bentonite, and trona), agriculture, and tourism as key components. In 2021, mining and logging made up 5.3% of state nonfarm employment compared with 0.4% for the nation. IHS Markit estimates that the mining sector accounts for about 20% of gross state product (GSP), compared with 1.4% for the nation. Federal statistics show mining comprised 7.2% of state nonfarm employment in 2019, compared with 0.5% for the nation. Extensive federal land holdings also contribute to a higher governmental employment component than that of the nation as a whole.

Wyoming has the ninth-largest land area of all the states, but its population of 578,803 is the smallest. It leads the nation in coal production and geologists estimate that the state contains about 70 billion tons of coal reserves--and produces about 40% of the nation's coal supply--with most of the coal used for power generation in the South and Midwest. However, coal production has fallen as utilities have switched to cheaper and cleaner natural gas as a fuel

source. The state also accounts for 6% of the nation's natural gas production, as well as having significant oil production, and has the world's largest trona reserve, which is mostly used for glass production and baking soda.

The state also enjoys significant tourism, with the presence of Yellowstone National Park, the Grand Teton National Park, and other parks, ski resorts, and recreational attractions. According to the Wyoming Office of Tourism, nearly 7 million overnight visitors spent \$3.1 billion in the state in 2020. Recent extensive flooding in the Yellowstone area may have an impact on the summer 2022 tourism season.

Wyoming has the nation's seventh-highest wind capacity potential in the country, and wind power has been expanding rapidly, with nearly 1,500 megawatts of generating capacity in the state and several large-scale projects in development. In addition, TerraPower has plans to build a Natrium nuclear power plant in the city of Kemmerer.

Closure of coal mines and cyclicality in the mining industry have contributed to weak population trends in the past decade, with consecutive population losses from 2016 through 2018, before small subsequent population gains. Income levels are still above the U.S., and the presence of national parks and ski resorts has contributed to a robust tourism industry. However, the recent rise in oil and natural gas prices has substantially raised the outlook for state revenues and economic growth (coal tends to be produced under long-term contract and has had a declining production trend). IHS Markit forecasts state real gross product growth of 1.6% in calendar 2022, 2.4% in 2023, and 2.0% in 2024, compared with 2.5%, 1.9%, and 1.9% for the U.S., respectively.

State per capita personal income was 103% of that of the nation in 2021 (down from 123% in 2014), while GSP per capita was also greater than that of the nation at 104% in 2021 (down from 140% in 2011).

Linkage to state general creditworthiness

We view the federal mineral royalty program as linked to the state's creditworthiness. Pledged federal mineral royalty revenues are not subject to annual appropriation by the Wyoming legislature. However, in our view, the collection and distribution of pledged revenues by the state itself expose the revenues to Wyoming's operations. For this reason, under our priority-lien tax revenue debt criteria (published Oct. 22, 2018), we consider the linkage between the priority-lien pledge and Wyoming to be close. Given Wyoming's current creditworthiness, we don't view linkage as a limiting rating factor for the guarantee debt rating.

For more information on the state, please see our most recent full analysis on Wyoming, published June 28, 2022.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Wyoming; General Obligation

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Credit Profile

Wyoming ICR

Long Term Rating AA/Stable Affirmed

Rating Action

S&P Global Ratings affirmed its 'AA' issuer credit rating (ICR) on the State of Wyoming. The outlook is stable.

Credit overview

Wyoming has maintained what we consider to be very large fund balances over the years, an important consideration in view of the state's large swings in oil-, gas-, and coal-derived tax revenue. On a generally accepted accounting principles (GAAP) basis, fiscal 2021 ended with available general fund and school foundation reserves equal to \$3.3 billion, or what we view as a very large 102.5% of combined general and school program fund expenditures.

The state's economy is predominantly resource-based, with mining (coal, oil, natural gas, bentonite, and trona), agriculture, and tourism as key components. In 2021, mining and logging made up 5.3% of state nonfarm employment compared with 0.4% for the nation. When oil and gas prices were low in the last cycle, the state was looking at potentially large operating deficits in the middle of the previous biennium, and even the enacted 2023-2024 biennium budget assumes a small structural deficit in its school foundation program, which provides aid for local school districts.

However, the January 2022 revenue forecast used in the currently enacted biennium budget is already out of date. Recent increases in property valuations (Wyoming levies a property tax for schools) and a large rise in oil and gas prices and production are likely to produce windfall revenues and substantially boost reserves in the current biennium, instead of drawing them down. If oil and natural gas prices persist at current levels, the state could see more than \$1 billion of additional unbudgeted revenue across all its funds.

Coal mines closure and cyclicality in the mining industry have contributed to weak population trends over the past decade, with consecutive population losses from 2016 through 2018, before small subsequent population gains. Wyoming's population of 578,803 is the lowest of the 50 states. Income levels are still above the U.S., and the presence of national parks and ski resorts has contributed to a robust tourism industry. However, the recent rise in oil and gas prices has substantially raised the outlook for state revenues and economic growth (coal tends to be produced under long-term contract and has had a declining production trend). IHS Markit forecasts real gross state product (GSP) growth of 1.6% in calendar 2022, 2.4% in 2023, and 2.0% in 2024, compared with 2.5%, 1.9%, and 1.9% GDP for the U.S., respectively.

Wyoming has wide discretion to cut spending and raise taxes. Income generated from the state's \$9.4 billion restricted permanent fund was composed of 24% of general fund revenue on a GAAP basis in fiscal 2021, excluding restricted federal spending, and in our view contributes a stabilizing effect on revenue compared with the cyclicality of mining-related revenue, particularly as the state does not have an income tax. One comparatively inflexible expense

involves funding local schools--courts have ruled that Wyoming must provide adequate levels of funding for kindergarten to grade 12 schools, including school facilities.

The state has low overall liabilities, with no general fund-supported debt, and only a small amount of debt secured by federal mineral royalties. We calculate total tax-supported debt per capita is only \$19 and less than 0.1% of state total personal income. Wyoming has no current plans to issue new tax-backed debt.

Unfunded pension liabilities equal only 1.1% of personal income, although Wyoming's statutory funding formulas expose the state to potential future mismatches between actuarial needs and the legal funding formula. The net other postemployment benefit (OPEB) liability is only \$911 per capita and limited to an implicit subsidy.

The ICR reflects what we view as:

- An economy based on mining, tourism, agriculture, and governmental employment that is now experiencing a sharp upturn, after a previous steep downturn in energy prices, and which could produce a substantial windfall in unbudgeted state revenue in the current biennium;
- The governor's strong statutory ability to make midbiennium cuts in the event of revenue shortfalls, and regular consensus revenue forecasting;
- Wyoming's historical maintenance of very large operating fund balances, despite the cyclical components of the state's economic and revenue base, enhanced by the existence of a large permanent fund, whose interest and capital gains earnings, up to 5% of principal, are available for general fund expenditures; and
- · Low overall debt and low OPEB liabilities.

Offsetting factors include:

- A budgeted structural deficit in the state's school foundation program (which could be erased by updated revenue projections), and a history of cyclical revenue performance; and
- Annual retirement contributions that have been somewhat less than the annual actuarially determined contribution (ADC), combined with recent reductions in what previously had been aggressive return assumptions that have contributed to a relatively low three-year-average pension funded ratio of 76%.

Based on the analytical factors we evaluate for states, on a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned Wyoming an overall composite anchor score of '1.8', which is indicative of a 'AA+' rating; however, we have used the discretion allowed under our criteria for a one-notch differential from our anchor score to reflect the impact of trends in the mineral industry on the state's tax structure, and our expectation for substantially reduced reserves in the future that we believe would put Wyoming more in line with our 'AA' rated states.

The stable outlook reflects our expectation that available state reserves will remain high over our two-year outlook horizon, despite potential fluctuations in oil and gas-derived tax revenue, and that Wyoming will take corrective budget action in future bienniums should structural deficits re-occur. We anticipate that current biennium revenues might exceed budgeted levels and produce a substantial addition to reserves that could be used to mitigate future oil and gas downturns.

Environmental, social, and governance

ESG credit indicators: E-4, S-2, G-2

Environmental factors are a negative consideration in our credit rating analysis for Wyoming. The state is exposed to significant climate transition risks due to its dependence on the coal, oil, and gas mining industries for both tax revenue and employment. In 2020, 6.0% of Wyoming's nonfarm employment was in mining and logging, compared with 0.4% nationally. As national and global economies trend toward net-zero, we believe the reliance on this sector for economic growth exposes the state to potential budgetary challenges given that about 24% of the state's fiscal 2020 school program aid fund and 27% of general fund revenue on a GAAP basis was derived from this sector, even after a 30% drop in mineral severance tax compared with 2019. To date, Wyoming maintains very large financial reserves, despite the recent volatility in revenues due to oil price performance. We believe social and governmental factors are neutral in our credit rating analysis.

Stable Outlook

Downward scenario

Should significant structural deficits occur for a length of time that could reduce state reserves from high levels, likely due to persistently depressed energy prices, we could lower our rating or revise the outlook on Wyoming.

Upward scenario

An upward revision in the outlook or rating would entail an expectation of long-term structural balance and maintenance of very high reserve levels to mitigate Wyoming's historical swings in mining-related revenues.

Credit Opinion

Governmental Framework

Budget laws and procedures are set by statutory law, although the state constitution specifies that revenue bills must originate in the state house of representatives. Under statutory law, the governor must submit a balanced biennial budget with a 5% reserve fund in even numbered years, which the legislature then has the opportunity to modify. However, there is no legal requirement for the legislature to enact a balanced budget. The legislature typically enacts statutory enabling legislation at the time of budget adoption to require the governor to review revenues against budget and authorizes him to reduce midbiennium expenditures if he determines that a midbiennium budget shortfall exists. The state constitution grants the governor a line-item veto authority over any bill, which includes budget bills. The legislature also has the power to add supplemental appropriations during legislative sessions in odd numbered years.

Although the governor's statutory ability to make midyear budget-balancing cuts in appropriations is authorized only as part of each new budget bill, such midbiennium-cutting authority has been authorized by the legislature for numerous previous biennium budgets and we expect this will continue. In 2010, the governor reduced appropriations approximately \$205 million in the 2009-2010 biennium following revenue shortfalls and also made midbiennium adjustments in the 2017-2018 budget. The state also made midbiennium adjustments in the 2019-2020 budget to meet

what were then projections of a sharp downturn in revenues.

Except for a 12-mill constitutional limit on state property taxes, Wyoming has legal flexibility to raise taxes at its discretion, except it can assess only a maximum of 4 mills of the property tax for noneducational purposes. The state constitution does require that if Wyoming were ever to impose an income tax, that tax must include credits for sales and property taxes. The state does not have a personal income tax, at present. Rents and other income earned from land grants dedicated to public school purposes are restricted for the use of schools in the common school account. A portion of federal mineral royalty income is also statutorily dedicated to school funding.

Wyoming has wide legal latitude to adjust disbursements, although state courts have ruled that the state constitution requires sufficient resources be available to deliver a proper educational "basket of goods and services" to each student. Therefore, Wyoming must provide each school district with a minimum state-determined foundation amount to help equalize school resources per student. This equalization of school resources up to the minimum standard includes equalization of school capital facilities, as well as of school operating revenues, although Wyoming has some discretion to set the overall level of school funding for both operations and capital facilities. The enacted fiscal 2023-2024 biennium budget is structurally balanced for the general fund but has a structural deficit in the school foundation program biennium operating budget of about \$128 million, based on a January 2022 revenue forecast used for the adopted budget. While we view this as a significant intergovernmental funding obligation and an ongoing structural deficit, updated revenue forecasts since January indicate that instead of a significant structural deficit, the state will now have a substantial operating surplus of about \$1 billion because of increased oil and gas prices and production. In addition, the school capital construction fund was funded through a budgeted drawdown of \$65 million from state reserves. The state has indicated that there is no pending litigation for increased school funding and that no other significant court or constitutional mandates exist for other noneducational areas of funding.

Nearly one-half of state land is under federal control; therefore, Wyoming collects sizable federal mineral-sharing royalties, coupled with property and severance taxes from the mining sector. The Biden administration put a temporary moratorium on new federal mineral leases, with the first new federal leases in the state expected to be awarded next month. The administration has also severely limited the amount of land eligible for new federal mineral leases, although it has also proposed raising the mineral royalty rate for new leases, of which half of the increase would be shared with the state. In addition, during the Obama administration, federal mineral royalty revenues were temporarily reduced as part of the overall sequester of appropriations to meet federal appropriation targets.

The state's permanent mineral trust fund (PMTF) is established by the Wyoming Constitution (Article 15, section 19) and receives a 1.5% mineral severance tax. In 2005, the legislature added an additional statutory 1.0% severance tax deposit to the PMTF (W.S. 38-14-801(b)) for a total of 2.5%. In 2016, the legislature diverted the statutory 1% severance tax through fiscal 2018 to a separate severance tax account, which was loaned to the state budget reserve account to maintain a 5% statutory reserve requirement, with no constitutional requirement to be paid back. In the 2019-2020 biennium the legislature temporarily diverted the 1% severance tax into the general fund, and redirected another portion of the severance tax traditionally directed to the general fund to the school foundation program reserve account. In fiscal 2021, the PMTF had a net increase of \$1.4 billion due to \$1.3 billion in investment income, raising the fund to \$9.4 billion.

The corpus in the PMTF cannot be spent, although fund income is deposited as unrestricted income in the general fund. The state has a 5% spending limitation on interest and capital gains earnings from the fund. Wyoming also has a restricted common school land fund, which provides money for school expenditures.

The state constitution allows voter initiatives, but in our opinion it is very difficult to get on the ballot, with the last voter initiative making the ballot in 2008. Wyoming Constitution requires initiative petitions to have signatures equal to at least 15% of the voters in the previous statewide election, and also to have signatures within each of at least two-thirds of the counties equal to least 15% of those who voted in that county in the previous election. Initiatives also cannot dedicate revenue, make or repeal appropriations, and must be for a single subject, among other restrictions. In our view, the initiative process has not had a significant effect on state finances.

Wyoming has not had general obligation (GO) debt for many years, although it is permitted under the state constitution, if authorized by state referendum. GO debt, if issued, is limited to 1% of state assessed value. If GO debt were issued, S&P Global Ratings believes it is unclear what priority of payment it would have under the state constitution, although it would appear to be after payment of any dedicated tax bonds outstanding from its specifically pledged revenue streams. In the past, the state has issued lease appropriation-supported debt (including debt for prisons in 1998, 2000, and 2001) through the Wyoming Building Corp., although no lease-secured debt is outstanding at present. Wyoming has also issued revenue debt backed by federal mineral royalties, which constitutes the sole tax-backed debt outstanding. State cash flow notes are permitted without a popular vote. However, Wyoming has not issued cash flow notes since fiscal 2007, we believe due to strong state fund balances. It had a school debt guarantee program; however, this was statutorily closed off to new money issuance in 2001 and no debt remains under this program. The state has a program guaranteeing up to \$18 million per year in debt service for the University of Wyoming from a portion of the state's federal mineral royalties. However, only about \$77 million of debt is currently guaranteed under this program. The state has no plans to issue new debt at present and plans to use pay-as-you-go financing for future capital facilities.

On a scale of '1.0' (strongest) to '4.0' (weakest), we assigned a score of '1.9' to Wyoming's governmental framework.

Financial Management Assessment: Good

S&P Global Ratings deems Wyoming's financial management practices good under its Financial Management Assessment (FMA) methodology. An FMA of good indicates financial practices exist in most areas but that governance officials might not formalize or regularly monitor all of them.

Highlights include:

- The state's use of extensive planning and analysis to devise revenue and expenditure assumptions, including those in the consensus revenue estimating group (CREG) forecast;
- The newly created state budget department provides monthly budget updates to the governing body, with the governor having the ability to make midyear reductions in appropriations to state agencies;
- · Wyoming makes multiyear budgeting and cash flow projections, which are created through the annual budget process, with both the current and next two budget years being addressed;

- Multiyear agency-level capital improvement programs that are approved through the biennial budget process;
- The state's formal investment management policy provides regular reporting to oversight by elected officials, including the governor; and
- The existence of a legislative stabilization reserve account, which serves as a rainy-day fund, although there is no legally required balance in this account.

A statutory 5% general fund budget reserve account is also specified, although in the past the legislature has overridden this requirement.

Budget Management Framework

State budget laws are statutory--Wyoming Constitution is silent on the necessity of a budget except that revenue bills must originate in the house. A consensus revenue forecast is issued twice a year, even in off-biennium years, and the consensus forecasting group also monitors and publishes a monthly update against the most recent revenue projection. The state budget office tracks monthly revenues against the biennial budget during the year, and can issue an alert that the governor will need to cut midyear expenditures, if necessary. In 2010, the governor reduced appropriations \$205 million midyear, in the middle of the fiscal 2009-2010 biennium, and the governor also made midbiennium reductions in the 2017-2018 and 2019-2020 bienniums.

The governor, under statutory law, submits a biennial budget and has line-item veto authority. The governor's ability to make midbiennium cuts is statutory--the authority has been included in each of the past four biennium budgets, and Wyoming indicates that this is now a routine provision of biennium budgets.

On a four-point scale where '1.0' is the strongest and '4.0' the weakest, S&P Global Ratings assigned a '1.5' score to Wyoming's financial management.

Economy

Wyoming's population increased an estimated 0.27% in 2021, compared with 0.12% growth for the U.S., following two years of growth slightly below the nation. The state population decreased from 2016-2018, reflecting, in our view, weakness in the mining industry and the sensitivity of state population to energy price cycles and their effect on coal, oil, and gas mining. Over the past 10 years, state population increased a total of 2.1%, compared with 6.5% growth for the nation. Before that, however, an economic boom caused by a period of high energy prices led to population growth faster than that of the nation. Wyoming had the lowest population of the 50 states in 2021, with 578,803 residents.

The state's age dependency ratio (the ratio of population below aged 18 and over aged 65 divided by the 18-64 working age population) was 68.4% in 2020, worse than the nation's ratio of 63.8%.

In our view, Wyoming's economy depends on the mining (oil, natural gas, coal, and trona), agriculture (ranching), and tourism industries, with limited major population centers. Mining and logging employment was as high as 9.3% of state nonfarm employment in 2014, before dipping during energy price declines, and then rising again to 7.2% of state

nonfarm employment in 2019, compared with 0.5% of employment for the nation. In 2021, mining and logging made up 5.3% of state nonfarm employment compared to 0.4% for the nation. Manufacturing accounted for only 3.5% of state employment in 2021 (compared with 8.4% nationally). At the same time, governmental employment was higher than that of the nation at 24.3% compared with 15.2% for the U.S. (much of the state consists of federal lands). Construction employment was 7.6% of employment versus 5.1% (for the U.S.), the trade sector was 18.4% versus 19.0%, and the leisure and hospitality sector was 12.9% versus 9.7%, boosted by the state's vibrant tourism industry. Education and health services, at 10.3% of employment ,was significantly below the U.S. percentage of 16.1%, as was professional and business services at 7.1% compared with 16.1% nationally. Recent extensive floods in the Yellowstone National Park area could affect the summer 2022 tourism season.

Wyoming's unemployment rate has generally been above the U.S. rate. However, the state average unemployment rate was 4.5% in 2021 compared with 5.3% for the nation, which might be attributable to the currently strong mineral and tourism sectors. The preliminary March 2022 unemployment rate was 3.4%, which is down 1.9% below the pre-pandemic level. IHS Markit forecasts state employment will increase 3.6% in 2022 and 1.4% in 2023, compared with an increase of 3.9% and 1.1% respectively, for the nation.

State per capita personal income was 103% of that of the nation in 2021 (down from 123% in 2014), while GSP per capita was also greater than that of the nation's GDP at 104% in 2021 (down from 140% in 2011).

Wyoming's real GSP growth has been more volatile than that of U.S. GDP, showing 1.1% growth in 2021, a negative 6.1% decline in 2020, growth of 1.7% in 2019, and growth of 1.5% in 2018, compared with 5.7%, negative 3.4%, 2.3%, and 2.9%, respectively, for the nation in those years. From 2011-2021, real GSP rose 7.1% compared with 38.5% growth for the nation's GDP in inflation-adjusted dollars, and the state's real compound GSP growth rate has been below that of U.S. GDP over one-, five-, and 10-year periods. We believe mining activity is an important element in GSP swings, although there is some diversity among different types of mineral extraction.

In fiscal 2021, Wyoming received 38.3% of its total mineral severance tax revenue from oil, 23.5% from natural gas, 27.9% from coal, and 5.1% from trona. New fracking technology has previously led to a decline in natural gas prices. This, plus federal environmental policies discouraging coal use, has resulted in electric utilities switching power generation to natural gas from coal, causing some pressure on the state's very substantial coal production, and oil and gas has now overtaken coal as the largest source of severance tax revenues.

Wyoming has the ninth-largest land area of the all the states, but has the smallest population. It leads the nation in coal production and geologists estimate that Wyoming contains about 70 billion tons of coal reserves--and produces about 40% of the nation's coal supply--with most of the coal used for power generation in the South and Midwest. The state also accounts for 6% of the nation's natural gas production and has the world's largest trona reserve, which is mostly used for glass production and baking soda.

In addition, the state enjoys significant tourism, with the presence of Yellowstone National Park, the Grand Teton National Park, and other parks, ski resorts, and recreational attractions. According to the Wyoming Office of Tourism, nearly 7 million overnight visitors spent \$3.1 billion in the state in 2020. Recent extensive flooding in the Yellowstone area might affect the summer 2022 tourism season.

Wyoming has the nation's seventh-highest wind capacity potential in the country, and wind power has been expanding rapidly, with nearly 1,500 megawatts of generating capacity in the state and several large-scale projects in development. TerraPower also has plans to build a Natrium nuclear power plant in the city of Kemmerer.

On a scale of '1.0' (strongest) to '4.0' (weakest), we assigned a '2.4' score to Wyoming's economy.

Budgetary Performance

There is no legal requirement to maintain a minimum budget reserve, but the state has a recent history of maintaining what we view as large fund balances in its Legislative Reserve Fund, which acts as its rainy-day fund, and in other reserves, including its Permanent Wyoming Mineral Trust Fund Reserve Account, the Common School Permanent Land Fund Reserve Account, the School Foundation Program Reserve Account, the Budget Reserve Account, the Legislative Stabilization Reserve Account, and the School Foundation Program. The fiscal 2023-2024 biennium budget projects combined reserves in these funds to equal \$1.55 billion, or 77.1% of annualized expenditures of its combined general fund and school program fund operating expenditures on a budgetary basis of accounting, a level we consider very high, and in line with our calculation of the previous 2021-2022 biennium's ended 76.6% level.

Although we consider the state's spendable reserves very high and the general fund budget balanced, the current biennium budget has a \$128 million two-year structural deficit in the state's school foundation program. However, this deficit estimate is based on January 2022 revenue forecast. The state believes that updated anticipated revenues should leave Wyoming with an overall current biennium operating surplus of more than \$1 billion, including higher-than-anticipated property taxes from unexpectedly large increases in assessed value, and substantially increased revenue from higher-than-budgeted oil- and gas-derived tax revenue.

As a result, we believe reserve levels will likely actually increase in the current biennium from budgeted levels. The state has indicated as a rough rule of thumb that every \$10 increase in the price of a barrel of oil produces about \$100 million of extra state tax revenue across all of its funds. The January revenue forecast assumed a \$60 per barrel price of oil in 2022 and \$55 in 2023, which are currently well below market prices. However, the long-term trend for oil and gas prices and production remains murky and could be subject to substantial revision, particularly if alternative energy sources grow.

The state drew down reserves in the previous 2021-2022 biennium from even higher levels at the end of the 2019-2020 biennium, which we calculate at 86.5% of annualized general fund and school found program appropriations on a budgetary basis of accounting. The 2021-2022 biennium drawdown could have been even higher, but higher-than-budgeted oil and gas prices and midbiennium spending cuts mitigated the draw and left reserves at what we consider still high levels.

The legislature has routinely granted the governor the power to make unilateral midbiennium cuts in appropriations to the extent that revenues are below budget as part of the past seven biennium budgets, but such power must be approved at the time each budget is enacted. Wyoming has not yet opted into an expansion of Medicaid under the federal health care law.

Wyoming has no legal requirement to maintain a minimum budget reserve, but has a recent history of maintaining what we view as very large fund balances in its budget reserve and legislative reserve accounts, which act as its rainy-day fund.

On a GAAP basis of accounting, the state held an unassigned and assigned available general fund and school foundation program balance of \$3.3 billion at fiscal year-end June 30, 2021, equal to what we consider a large 102.5% of combined annual general fund and school program foundation expenditures in fiscal 2021.

In addition, the PMTF is required under the state constitution to receive a 1.5% mineral severance tax, whose corpus is preserved under this constitution, with income from it equal to 5.0% of the five-year average market value amount currently dedicated to the general fund on an unrestricted basis. This fund held \$9.4 billion at fiscal year-end 2021. Investment income accounted for about a sizable 22% of general fund revenue on a GAAP basis in 2021, which we view as a stabilizing revenue source that somewhat mitigates fluctuations from oil and gas-derived revenue. A separate 1% statutory severance tax that would normally flow into the PMTF has been diverted to the general fund in the previous and current biennium.

Wyoming also has what we view as a strong cash position and high liquidity. At fiscal year-end 2021, its general fund (including the legislative stabilization reserve fund) held a large cash position of \$3.6 billion. The state has not issued cash flow notes since 2006, when it issued notes for fiscal 2007. If necessary, Wyoming can interfund borrow from a common cash pool. The state has reported that it forecasts cash flow and monitors it on a regular basis.

For fiscal 2021, on a GAAP basis, 24.0% of combined audited general fund and school foundation program revenue (excluding restricted federal revenues) was composed of investment income, 19.7% sales and use tax, severance tax at 12.9%, federal mineral royalties at 6.5%, and interest and permanent fund investment income at 17%. The state does not have a personal income tax.

Schools are funded from a separate school foundation program fund, which also receives revenues from the following sources: a 12-mill state property tax, motor vehicle registration fees, royalties from a portion of federal land mineral royalties, trust fund earnings from the common school account (which receives rents and royalties from common school account dedicated land grants), and general fund appropriations for schools. Because of large fund balances and recent increases in oil and gas prices, Wyoming has not had to increase tax rates in recent years. We don't expect significant changes in the tax structure unless there was a significant downturn in the oil and gas markets and reserves began to reach low levels.

The state uses a CREG to forecast state revenues for budget purposes. This CREG is composed of many representatives of such groups as the state division of economic analysis, the legislature, the state geologist, the University of Wyoming, the state auditor, the state treasurer, among others; except for the legislative representative, all representatives are governor-appointed. The CREG issues forecasts twice a year, even during off-biennium years.

We believe Wyoming has wide latitude to adjust services, other than local education, and expenditures are more predictable, in our opinion, than mineral-based tax revenues. However, the state constitution requires sufficient resources be available to deliver a proper education "basket of goods and services" to each student. Court cases have ruled that Wyoming must provide each school district with a minimum state-determined foundation amount to help

equalize operating resources per student. A court case in 2001 also required the state to provide poorer school districts with adequate capital resources for school facilities.

On a scale of '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a '1.6' score to Wyoming's budgetary performance.

Debt And Liability Profile

In our opinion, state debt and liability levels are very low. There is no state GO debt, and state tax-supported debt at fiscal year-end 20219 consisted of \$11.4 million of debt outstanding, secured by federal mineral royalty payments. In the past, Wyoming has sold general fund-supported lease appropriation-supported debt through the Wyoming Building Corp., but in 2004 redeemed all such debt in full. The state has no current plans to sell additional tax-supported debt. Total tax-supported debt per capita is only \$19, and less than 0.1% of personal income. Tax-supported debt service as a percent of governmental funds expenditures was only 0.1% in fiscal 2021. Tax-supported debt as a percent of GSP is also less than 0.1%, a level we consider very low. Remaining federal royalty-secured debt is approaching final maturity, with 100% of principal scheduled to mature within 10 years. The state has a debt guarantee program for the University of Wyoming, secured by a portion of federal mineral royalties that flow to the university, but only \$70.8 million is outstanding, which is paid first from University of Wyoming revenues. A separate state guarantee program for local school debt was closed to new participants several years ago and debt no longer exists under that program.

Wyoming's combined pension funds (public employees, state patrol, volunteer firefighters, judges, law enforcement, and others) had a combined state employee-only funded ratio of 80.3% under Governmental Accounting Standards Board 68 reporting standards as of a Jan. 1, 2020, actuarial measurement date, and a three-year average funded ratio of 76%, which we view as relatively low. Contributing to a decline in the funded ratio in recent years has been a lowering of the actuarial assumed rate of return from what we view as an aggressive 7.75% to a less aggressive 7.00%, although still above the 6.00% we consider reasonable (see "Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings," published Oct. 7, 2019, revised Sept. 7, 2021). The state uses a statutory funding formula that has funded somewhat less than ADC. While its five-year annualized return has sometimes been below the actuarially assumed 7.0% rate of return, in 2021 the state's main employee retirement fund returned 11.0%, and 19.7% in 2020, contributing to its recent improvement in Wyoming's overall pension funded ratio. However, recent negative stock market returns might reduce next year's calculate funded ratio. Retirement fund contributions were also less than the combined service costs, interest costs, and amortization component costs, and S&P Global Ratings calculates that while the main state employees' pension plan contributed close to the contributions necessary to maintain static funding levels in fiscal 2021, contribution were less than what we view as minimum funding progress toward amortization of unfunded liabilities.

In our view, Wyoming's net pension liability is small in relation to state income or on a per capita basis. The proportionate share of the state's pension systems' net pension liability for its combined pension funds had an actuarial value of \$431.2 million, or a low \$745 per capita. Wyoming uses a statutory formula to fund its pension contributions, allowing it to contribute at times less than what we calculate as static funding contributions. Actuarial assumptions for the main pension plan as of its 2021 audit included a 7.00% rate-of-return assumption, a closed 27-year remaining

amortization of unfunded liabilities, a 2.5% payroll growth assumption, and five-year actuarial smoothing of asset values, but within a corridor equal to 20% of market value. We calculate overall combined state employee-only unfunded state pension liabilities for all pension plans in the state retirement system unfunded liabilities to personal income is low at 1.1%.

We consider Wyoming's \$527.5 million proportionate share of net OPEB liability in fiscal 2021 to be low. There is no money set aside in an OPEB trust fund. The net OPEB liability amounts to \$911 per capita, compared with an average state OPEB of \$1,432 per capita and median of \$527 per capita in our most recent 50-state OPEB report using fiscal 2020 state audits. Wyoming offers only an implicit retiree health care subsidy, whereby retired and current state employees under age 65 pay a single blended rate for health care premiums, which are fully paid each year under Wyoming's pay-as-you-go funding. The state health savings plan is not available to those aged 65 and older.

On a scale of '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a '1.5' score to Wyoming's debt and liability profile.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

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S&P Global Ratings

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Summary:

University of Wyoming Trustees; **General Obligation**

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ser 2021B dtd 06/01/2021 due 0

Long Term Rating AA-/Stable Outlook Revised

Underlying Rating for Credit Program AA-/Negative Current

University of Wyoming Trustees, Wyoming

University of Wyoming Trustees, Wyoming

Wyoming

University of Wyoming Trustees (Wyoming) GO

Long Term Rating AA-/Stable Outlook Revised

Underlying Rating for Credit Program AA-/Negative Current

University of Wyoming Trustees, Wyoming

University of Wyoming Trustees, Wyoming

Wyoming

University of Wyoming Trustees (Wyoming) GO (BAM) (SECMKT)

Unenhanced Rating AA-(SPUR)/Stable Outlook Revised

Underlying Rating for Credit Program AA-/Negative Current

Many issues are enhanced by bond insurance.

Rating Action

S&P Global Ratings revised its outlook to stable from negative and affirmed its rating 'AA-' rating on the University of Wyoming Trustees' facilities improvement revenue bonds outstanding, payable from a portion of the federal mineral royalties received by the State of Wyoming.

The bonds are secured by federal mineral royalties, up to \$18 million per year, after previous deduction of \$200 million of federal mineral royalties per year to cities, schools, counties, and other state purposes.

The stable outlook reflects an improved outlook for state oil and natural gas federal mineral royalties, due to higher oil and natural gas prices and production, following a prior period of depressed prices which has strengthened historical and projected debt service coverage.

The bonds also carry a 'AA-' underlying issuer credit rating, with a negative outlook, on the University of Wyoming, reflecting only the pledged security of the university's facilities revenues alone, on parity with other existing university debt (for more information on the University of Wyoming's creditworthiness, please refer to our most recent university

rating rationale).

The rating and outlook is the higher of our rating on either the federal mineral royalty pledge or the pledge of the University of Wyoming, under a double-barreled pledge. Currently, we see the two pledges as having equal credit strength.

The Wyoming Loan and Investment Board also has issued separately secured series 2012A and B state loan and investment board capital facilities bonds (AA+/Stable), secured by a different allocation of federal mineral royalties made to the state school foundation and state highway funds as a part of the first \$200 million distribution of royalty payments, and which are not on a parity with the series 2021A, 2012A, 2011B, or 2012B university facilities improvement bond issues.

Credit overview

We base the rating on what we view as the higher creditworthiness of either the University of Wyoming or the pledge of federal mineral royalties. We currently view the two pledges as having equal credit characteristics.

We have evaluated the credit quality of the federal mineral royalty pledge using priority-lien tax revenue debt criteria published Oct. 22, 2018.

Although we calculate high coverage of the combined prior \$200 million allocation of federal mineral royalties and university debt service by fiscal 2021 revenues, the state projects a large increase in total federal mineral royalties in fiscal 2022, to \$531.2 million in 2022 from \$468.5 million in 2021, before a projected fall to \$459 million in 2023. State federal mineral royalties are volatile, depending on the price and production of oil and natural gas, and to a lesser degree on mining activity for coal, trona, and uranium. State federal mineral royalties were as high as \$640 million in 2019. Oil and natural gas prices have risen since the most recent state forecasts were made in January 2022, and final fiscal 2022 revenues could be higher than forecast.

Wyoming's January 2022 consensus revenue forecast projects federal mineral royalties will increase to \$531.2 million in fiscal 2022. This would cause all-in coverage to increase to 2.5x, a level we would view as good, before slightly falling in subsequent years to near 2x.

At the same time, federal policy raises uncertainty in the long term--the Biden administration initially implemented a 60-day pause on new federal oil and natural gas leasing, which the interior department since extended to the end of June. The federal government could extend the moratorium after June or impose a longer ban on oil and natural gas drilling on federal land. The recent pause only affects new federal leases for oil and natural gas (not other minerals), and did not have a large immediate impact, since existing leases continued to supply revenue, and existing permits are good for two years. However, a long-term federal ban could have a significant effect on long-term revenue. Currently, about 65% of the tax from the state's separate mineral severance taxes are derived from oil and natural gas, providing an indication of federal mineral royalty exposure to this sector, because much of Wyoming's mining is on federal land.

We calculate that fiscal 2021 federal mineral royalties covered the state's \$200 million prior allocation of revenue and the two-thirds of revenue over \$200 million necessary to pay the \$9.0 million of guaranteed university debt service by a strong 2.2x. Wyoming's projected fiscal 2022 federal mineral royalties would provide a good coverage of 2.5x. The

state projects revenues will improve in the next few years due to higher projected oil and natural gas prices, offsetting the long-term decline in coal mining (27.4% of total severance tax) as utilities switch over to cheaper and cleaner natural gas generation.

Beyond potential future federal oil and natural gas leasing moratoriums, credit risk also exists in the potential for other federal action that could reduce the proportion of royalties shared with the states, and in reduction in federal mineral royalties during periods of federal sequestration of revenue under federal budget or debt limits, as has occurred from 2013 through 2020 and is likely to continue in future years. In our opinion, however, the federal government's long record of support for the program offsets this risk. Since the distribution of federal mineral royalties to states began in 1920, the federal government has changed the allocation to states only once, in 1976, and that was to increase it. Risk also is present in Wyoming's ability to change the statutory allocation of federal mineral royalties that could affect debt service coverage (DSC) by available federal mineral royalties.

The capital facilities bond rating reflects what we view as:

- Extensive oil, coal, and natural gas reserves available for federal mineral leasing, which generates the pledged revenue;
- The historical stability of federal revenue distribution formulas;
- High 2.20x coverage of combined guaranteed debt service and prior \$200 million deduction by federal mineral royalties by fiscal 2021 federal mineral royalty revenue, which we expect to decline, but remain still good, based on updated state projections; and
- Ongoing segregation by the state of federal mineral royalties in an amount equal to the guaranteed debt service in advance of debt service due dates, unless the university provides an equivalent amount up front.

Offsetting factors include what we consider:

- · The dependence of federal leasing activity on volatile mining activity and mineral prices; and
- Potential federal changes in leasing policy, or changes in the state allocation of the federal mineral royalties pledged to the guarantee program.

Environmental, social, and governance (ESG)

Environmental risks for the federal mineral royalty guarantee pledge stem from the state's high concentration in the coal, oil, and natural gas industry, and potential for increasing economic challenges as utilities switch to natural gas from coal, and to renewable energy sources. We view Wyoming's social and governmental risks as neutral in our credit rating analysis

Stable Outlook

Downside scenario

We could lower the rating if revenue declines cause coverage to fall below levels we consider strong. We could also lower the rating if the federal government made a significant adverse change in its federal mineral royalty policy, such as permanently banning new mineral leasing on federal lands, significantly adversely changed its distribution formula

of federal mineral royalties to the states, delayed or reduced payment of royalty revenue for an extended period of time in an amount that materially affected annual DSC, or if Wyoming amended its statutory law to reduce pledged royalty revenue or allowed substantial additional debt issuance to be secured by pledged federal mineral royalties in an amount that materially lowered DSC.

Upside scenario

We could raise the rating if federal mineral royalty revenue materially improves with no prospects for additional debt issuance.

Credit Opinion

The guarantee program

The state intends the bonds to be repaid by University of Wyoming revenues, and that the guarantee of federal mineral royalties will only be used to the extent that the university does not pay debt service. Under a memorandum of understanding with the state treasurer, the university makes payment of debt service to the state treasurer, who then makes payment to the bond paying agent. The memorandum requires the university to pay debt service to the state treasurer at least five business days before the debt service payment date, and to notify the state treasurer five business days before a debt service payment date if it believes it will not be able to make a debt service payment. On receipt of notice that the university is not going to make a payment, or failure of the university to give a notice to the state treasurer that it will make the payment, the treasurer will transfer sufficient pledged federal mineral royalty money, or the advance deposit of university funds (as described in the next paragraph), to the paying agent five business days before the actual payment due date. The state treasurer's office intends to fund the restricted set-aside account in May of each year for ongoing annual debt service payments, whether from state federal mineral royalties or from a deposit of University of Wyoming money, as the case may be, and to maintain the segregated amount as a reserve across fiscal years. To the extent the University of Wyoming notifies the state treasurer that it will be unable to make a debt service payment, or the university fails to give the state treasurer a notice of affirmation that it can make the payment (as described below), the segregated account will be liquidated to make debt service payments under the guarantee program, or if available, the university deposit (as described below) shall be used. At the end of each year, either the federal mineral royalties or the advance deposit of University of Wyoming funds will be released to either the state budget reserve or the University of Wyoming, respectively.

Under a subsequent amendment to the original guarantee agreement with the state, the University of Wyoming has the annual option to deliver guarantee money in advance of debt service into a restricted account held by the university, in replacement of the state treasurer annually holding back an equivalent amount of the pledged federal mineral royalties, to provide annual liquidity for the guarantee program. If this option is exercised, it allows Wyoming to deposit federal mineral royalties into its state budget reserve earlier in the year. In any year in which the university does not provide money in advance for deposit into the restricted account, the state annually holds back federal mineral royalties in a restricted account to secure the guarantee of debt service.

Distribution of federal mineral royalties

The federal government collects a 12.5% royalty on the productive value of new leases to mine oil, natural gas, or coal

on federal lands, and a 4.0% royalty for new trona mining leases for 10 years beginning Jan. 1, 2021. However, the current administration is raising the royalty rate to 18.75% on new leases. Half of the royalty money is shared with the state and the increased money would come in slowly. However, the amount of land has been drastically reduced subject to new leasing. Because leases are long term, the effect on revenues would phase in slowly. There have been no new leases in Wyoming under the Biden administration to date although two are expected in the new term. The U.S. owns 49% of Wyoming's land and 68% of the state's mineral rights, although about 11% of U.S. land in the state is designated as wilderness area off limits to mining.

Under provisions of the Mineral Leasing Act of 1920, the federal government gives each state a portion of the mineral royalties it collects from mines located on federal lands in Wyoming. The act was amended in 1976 to increase the state's share to 50.0% from 37.5%. Subsequently, the federal government implemented a 2% collection fee before distributing royalty payments to states.

The U.S. president issued a sequestration order on March 1, 2013, in accordance with the Balanced Budget and Emergency Deficit Control Act as amended. In late October 2013, the Department of Interior began the practice of repaying the state for federal mineral revenues sequestered during the previous federal fiscal year, with the result that federal sequestration had no net long-term impact on collection of revenues, although there was a minor short-term impact. There have been periods of federal sequestration in following years through 2021.

The flow of federal royalty payments is set by state statutory law. The first \$200 million per year of federal mineral royalties the state receives is currently distributed to cities, counties, school districts, and the University of Wyoming, and used for other state purposes pursuant to state statutory formula. Two-thirds of royalty payments received after this \$200 million deduction is next allocated to pay debt service on the series 2021A, 2012A, 2021B, and 2011B, as well as for debt that might be issued in the future under the guarantee, up to an amount equal to \$18 million per year. Surplus federal mineral royalties that are not used for the bond guarantee are deposited in the state's budget reserve account.

Wyoming could also change the proportion of federal royalties it allocates to the guarantee or increase the amount of debt guaranteed by federal mineral royalties but has no current plans to do so. State law requires University of Wyoming debt to have 1.0x coverage by university revenues before issuing guaranteed debt, and 1.0x coverage by federal mineral royalties to be in the guarantee program.

Revenue volatility: High

Federal mineral royalties distributed to the state show high volatility in our opinion. Wyoming royalty revenue is derived largely from leases for oil, natural gas, coal, and trona on federal land. Mineral royalties show large year-to-year swings in revenue, while the potential also exists for changes in the federal distribution formula to states, and in the state statutory distribution between different levels of government and state uses. In 2013, federal budget sequestration temporarily reduced federal distribution of royalty payments by about 7%, and has occurred every year since through 2020, although the federal government made up for shortfalls in the following years. In federal fiscal 2020, the sequestration was 6%.

Total Wyoming federal mineral royalties (including volatile coal lease signing bonus payments) rose 4.6% in fiscal 2014, declined 9.1% in 2015, declined another 23.2% in 2016, rose 0.4% in 2017, declined 21.6% in 2018, rose 16.0%

in 2019 to \$640.6 million, and then declined 23.7% to \$489.1 million in 2020. The royalties then fell 4.2% in fiscal 2021 to \$468.5 million and the state estimates a gain of 13.4% revenue in fiscal 2022 to \$531.2 million, and then a 13.6% decrease in 2023. Two-thirds of federal mineral royalties is available to guarantee university debt service after prior statutory deduction of \$200 million for other purposes.

Coverage and liquidity: Strong to very strong

Total federal mineral royalties were \$468.5 million in fiscal 2021. We calculate that mineral royalties would have to equal at least \$213.5 million to equal the state's prior deduction of \$200 million for other purposes, including having sufficient revenue so that two-thirds of the excess over \$200 million of royalties is available to meet maximum annual debt service of \$9.0 million. This produces very strong 2.20x coverage of prior obligations by historical federal mineral royalties, including coal bonus payments. However, Wyoming's January 2022 consensus revenue forecast projects federal mineral royalties will increase to \$531.2 million in fiscal 2022. This would cause all-in coverage to increase to 2.50x, a level we would view as good, before slightly falling in subsequent years to near 2.00x.

There is no debt service reserve for the bonds, but the state treasurer's sets aside an amount equal to the guaranteed debt service on an ongoing basis, to the extent the university does not provide up front each year an equivalent amount in a restricted account (held by the university), that provides adequate liquidity to pay annual debt service, if needed, under the guarantee.

The January revenue forecast assumed a \$60 per barrel price of oil in calendar 2022 and \$55 in calendar 2023, which are currently well below market prices. However, the long-term forecast for oil and natural gas prices and production remains murky and may be subject to substantial revision, particularly if alternative energy sources grow.

Economic fundamentals: Strong to very strong

We view Wyoming as having strong to very strong economic fundamentals, although we also believe federal mineral royalty revenue is derived from a more concentrated economic base than that of the state as a whole.

The state's economy is predominantly resource-based, with mining (coal, oil, natural gas, bentonite, and trona), agriculture, and tourism as key components. In 2021, mining and logging made up 5.3% of state nonfarm employment compared to 0.4% for the nation. IHS Markit estimates that the state's mining sector represents about 7.5% of nonfarm payrolls (compared with a mere 0.5% for the national average) and nearly 20% of its gross state product (GSP) (compared with just 1.4% for the country). The Powder River Basin, most of which lies in northeastern Wyoming, is the largest coal-producing region in the country, and the state is one of the top natural gas-producing states. Extensive federal land holdings (almost half the state is under federal control) also contribute to a higher governmental employment component than that of the nation as a whole.

Wyoming has the ninth-largest land area of the all the states, but its population of 578,803 is the smallest of the 50 states. It leads the nation in coal production and geologists estimate that Wyoming contains about 70 billion tons of coal reserves--and produces about 40% of the nation's coal supply--with most of the coal used for power generation in the South and Midwest. However, coal production has declined as utilities have switched to cheaper and cleaner natural gas as a fuel source. The state also accounts for 6% of the nation's natural gas production, as well as significant oil production, and has the world's largest trona reserve, which is mostly used for glass production and baking soda.

The state also enjoys significant tourism, with the presence of Yellowstone National Park, the Grand Teton National Park, and other parks, ski resorts, and recreational attractions. According to the Wyoming Office of Tourism, nearly 7 million overnight visitors spent \$3.1 billion in the state in 2020. Recent extensive flooding in the Yellowstone area could have an impact on the summer 2022 tourism season.

Wyoming has the nation's seventh-highest wind capacity potential in the country, and wind power has been expanding rapidly, with nearly 1,500 megawatts of generating capacity in the state and several large-scale projects in development. TerraPower, also has plans to build a Natrium nuclear power plant in the city of Kemmerer.

Coal mines closures and cyclicality in the mining industry have contributed to weak population trends over the past decade, with consecutive population losses from 2016 through 2018, before small subsequent population gains. Wyoming's population of 578,803 is the lowest of the 50 states. Income levels are still above the U.S., and the presence of national parks and ski resorts has contributed to a robust tourism industry. However, the recent rise in oil and natural gas prices has substantially raised the outlook for state revenues and economic growth (coal tends to be produced under long-term contract and has had a declining production trend). IHS Markit forecasts GSP growth of 1.6% in 2022, 2.4% in 2023, and 2.0% in 2024, compared with 2.5%, 1.9%, and 1.9% GDP for the U.S., respectively.

State per-capita personal income was 103% of that of the nation in 2021 (down from 123% in 2014), while GSP per capita was also greater than that of the nation at 104% in 2021 (down from 140% in 2011).

Linkage to state general creditworthiness

We view the federal mineral royalty program as linked to the state's creditworthiness. Pledged federal mineral royalty revenues are not subject to annual appropriation by the Wyoming legislature. However, in our view, the collection and distribution of pledged revenues by the state itself exposes the revenues to Wyoming's operations. For this reason, under our priority-lien criteria, we consider the linkage between the priority-lien pledge and Wyoming to be close.

Given the state's current creditworthiness, we don't view linkage as a limiting rating factor.

For more information on the state, please see our most recent full analysis on Wyoming, published June 28, 2022.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

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