

# LEGISLATIVE REVENUE ADVISORY COMMITTEE

After the 2017 legislative session, the Legislative Management appointed a legislative revenue advisory committee and assigned the committee the responsibility to study state revenues and state revenue forecasts during the 2017-18 interim. The Legislative Management appointed a committee for the 2019-20 interim to continue studying state revenues and state revenue forecasts. The committee consists of the Majority and Minority Leaders of the House and Senate, the chairmen of the House and Senate Appropriations Committees, one member appointed by the House Majority Leader, and one member appointed by the Senate Majority Leader. The committee's duties include monitoring state revenues and state economic activity, reviewing economic forecasting data and models, and reviewing and analyzing executive revenue forecasts and alternative revenue forecasts.

Committee members were Senators Ray Holmberg (Chairman), Dwight Cook, Joan Heckaman, and Rich Wardner and Representatives Josh Boschee, Jeff Delzer, Lawrence R. Klemin, and Chet Pollert.

## REVENUE FORECASTING AND ADJUSTMENTS

### Revenue Forecasting Process

The committee reviewed the revenue forecasting process, including the responsibilities of the Legislative Assembly and the Office of Management and Budget (OMB). During the interim, the Legislative Revenue Advisory Committee meets to study state revenues and state revenue forecasts. Industry representatives provide information on economic trends, and the committee receives information on revenue collections from state agencies and forecasting data from an economic forecasting consultant. The consultant provides preliminary revenue forecasting information to the committee in September before the start of the regular legislative session.

The Legislative Assembly is responsible for approving the state budget. During the legislative session, the Appropriations Committees receive revenue forecasting information from the economic forecasting consultant. The Appropriations Committees adopt the initial base revenue forecast in January and revisions to the base revenue forecast in March based on economic conditions and forecasting information from the consultant and OMB. The legislative revenue forecast prepared at the end of each session is the official revenue forecast for the biennium until the Legislative Assembly revises the forecast, generally during the next legislative session.

Similar to the legislative process, OMB prepares revenue forecasts for consideration in developing the state budget. Currently, OMB contracts with Moody's Analytics to provide economic projections as a basis for the revenue forecasts. In coordination with the Tax Department, OMB uses the economic projections from Moody's Analytics along with historical tax collection data to forecast general fund tax revenues. These forecasts are presented to the Legislative Assembly during the organizational session in December as part of the executive budget with an update in March during the legislative session.

### 2015-17 Biennium Revenue Adjustments

After the development of the December 2014 executive budget revenue forecast, oil prices and oil activity decreased significantly. As a result, the 2015 Legislative Assembly adopted revenue adjustments during the legislative session to reduce the estimated general fund revenues and oil and gas tax revenues.

Due to the decrease in oil activity, the actual 2015-17 biennium general fund revenue collections were less than forecasted. In February 2016, OMB released a revised revenue forecast resulting in a transfer from the budget stabilization fund and reductions to agency budgets.

The Governor ordered a special legislative session in August 2016 to address additional budget challenges. The Legislative Assembly provided transfers from the budget stabilization fund and Bank of North Dakota profits to the general fund, reduced agency budgets, and recognized 2015-17 biennium unspent general fund appropriation authority to balance the general fund budget. An increase in oil activity allowed the Legislative Assembly to recognize an increase in the forecast for oil and gas tax revenues.

### 2017-19 Biennium Revenue Adjustments

The 2017 Legislative Assembly adopted a base revenue forecast in January 2017, which was lower than the December 2016 executive budget revenue forecast, to reflect current economic conditions. In March 2017, the Appropriations Committees adopted a revised revenue forecast prepared by OMB with an additional reduction to the 2017-19 beginning balance related to lower sales and use tax collections in the 2015-17 biennium.

During the 2017-18 interim, the Legislative Management appointed a Legislative Revenue Advisory Committee to study state revenues. The committee received information on economic trends from industry representatives,

information on revenue collections from state agencies, and forecasting data from a consultant. The committee selected IHS Markit to provide consulting services. The committee did not make a recommendation regarding the study of state revenues; however, IHS Markit provided additional updates to the Appropriations Committees during the 2019 legislative session to assist the committees in the development of the state budget for the 2019-21 biennium.

### **2019 Legislative Session Revenue Adjustments**

The Appropriations Committees adopted a base revenue forecast in January 2019, which reflected the average of the December 2018 executive revenue forecast and January 2019 estimates prepared by IHS Markit. In March 2019, OMB presented revisions to the executive revenue forecast, and IHS Markit presented an updated report reflecting revised revenue estimates. The Appropriations Committees adopted adjustments to the January 2019 base revenue forecast using the information received from both OMB and IHS Markit.

## **STATE REVENUES AND STATE REVENUE FORECASTS STUDY**

The committee received information on economic trends, including a short-term outlook from industry representatives and revenue collections from state agencies. The committee also received information from a consultant regarding state revenue forecasts.

### **Information from Industry Representatives**

The committee received information in August 2020 from the North Dakota Petroleum Council regarding the status of the oil and gas industry. Oil and gas activity was slowly recovering from the Coronavirus (COVID-19) pandemic and oil price decline earlier in 2020. Some oil drilling activity increased as operators worked to secure federal leases ahead of the election in November 2020. The federal Coronavirus Aid, Relief, and Economic Security (CARES) Act funding used by the Department of Mineral Resources to plug and remediate abandoned oil wells allowed oil companies to keep some oil field workers employed while the industry experienced a decrease in activity.

The committee received information from the North Dakota Stockmen's Association, the North Dakota Wheat Commission, and the North Dakota Soybean Council regarding the status of the agriculture industry. Recent international trading agreements increased cattle prices by 15 percent. However, the COVID-19 pandemic decreased the demand for beef while restaurants were closed and processing facilities were temporarily shutdown. Demand for North Dakota's quality wheat increased during the COVID-19 pandemic as more consumers were baking at home. Drought conditions in 2019 decreased wheat production but government payments and insurance assisted farmers to pay expenses. Soybean exports slowly increased after the significant decrease in 2018 related to the trade dispute with China. Concerns from the agriculture industry included a lack of processing facilities in North Dakota, weather conditions, pasture quality, and other supply chain issues.

The North Dakota Retail Association and the Associated General Contractors of North Dakota provided information to the committee regarding other industry trends. Some retail sales increased during the COVID-19 pandemic as shoppers purchased essential items, but restocking was a challenge as transportation slowed and manufacturers reduced output. Thefts increased by 25 percent with larger retailers experiencing theft-related losses in excess of \$500,000. The closure of the Canadian border due to the COVID-19 pandemic impacted small retailers more than large retailers because large retailers benefited from an increase in online sales. Concerns from retailers include changes in consumer shopping patterns as online sales increase and the impact on physical stores. Construction in the spring and summer of 2020 remained steady even during the COVID-19 pandemic. Favorable weather, slower business activity, and fewer commuters allowed construction activity to start earlier in the spring. Funding challenges for governments and businesses may cause construction activity to decrease in the next few years.

### **Information from State Agencies**

The committee received information from the Department of Mineral Resources regarding oil and gas development activities. Oil companies slowed the oil production on approximately 6,600 wells and shut in approximately 3,300 wells in the spring of 2020. Approximately 70 to 80 well completions are needed per month to maintain oil production. In August 2020, 11 rigs were operating and capable of drilling a combined total of 20 to 25 wells per month. Approximately 35 fracturing crews are needed to maintain production levels, but only 3 fracturing crews were operating in August 2020. The average estimated cost to produce a barrel of oil in the core area of the Bakken is \$27, consisting of \$15 for the cost to lift the oil from the well and \$12 for other costs, including transportation. Record levels of oil in storage may suppress oil prices in the short term.

The committee received information from the North Dakota Pipeline Authority regarding oil price and production trends. Based on the New York Mercantile Exchange (NYMEX) futures for West Texas Intermediate oil prices as of August 11, 2020, the North Dakota Pipeline Authority was forecasting oil production to average 1.23 million barrels per day in the 2021-23 biennium. Oil production will decrease if fewer than 70 wells are completed per month because of

the natural production decline from oil wells. North Dakota oil production could decrease to 800,000 barrels per day by 2024 if well completions remain at 20 wells per month.

The Office of Management and Budget and the Tax Department provided information to the committee regarding tax revenue collections. General fund revenues exceeded the 2019 legislative revenue forecast by 9 percent in July 2020 due to additional income tax collections paid in July rather than April under the delayed filing provisions related to the COVID-19 pandemic. Approximately \$53 million of income tax collections were delayed from April 2020 to July 2020 based on a comparison to the collections in 2019. The state collected \$22.2 million from online sales tax collections for the first 6 months of 2020, an increase of \$13.6 million compared to the first 6 months of 2019. The COVID-19 pandemic may cause a more permanent shift toward online purchases. Although the state receives sales tax collections from online sales, the state's economic activity may be reduced since the sales are not being made at physical retail establishments in the state.

### **State Revenue Forecasts**

The committee received information from the Legislative Council regarding a budget outlook for the 2019-21 and 2021-23 bienniums. The budget outlook provides information on estimated revenues and appropriations of the general fund, including anticipated costs to continue various programs and sources of funding that may be available to address a budgetary shortfall. Based on the outlook, the estimated general fund balance for the end of the 2019-21 biennium is \$197 million assuming a transfer to the budget stabilization fund is not necessary. The preliminary estimated general fund shortfall for the 2021-23 biennium is \$735 million before any additional spending requests, such as state employee salary increases, recommendations by the Governor, and legislative initiatives.

### **Consulting Services - IHS Markit**

The committee issued a request for proposals for economic forecasting data and received proposals from the University of North Dakota and IHS Markit. The committee selected IHS Markit to provide consulting services.

### **Economic Trends**

The committee received information from IHS Markit regarding economic trends, including trends in the national economy, the oil industry, and the agriculture industry. Gross domestic product (GDP) for the United States in the 2<sup>nd</sup> quarter of 2020 decreased by 40 percent compared to levels in February 2020 because of the COVID-19 pandemic. Gross domestic product for the United States is anticipated to increase by 30 percent in the 3<sup>rd</sup> quarter of 2020 compared to the 2<sup>nd</sup> quarter followed by moderate growth in the 4<sup>th</sup> quarter. Gross state product for North Dakota is anticipated to return to 2019 levels by 2023 while total employment is anticipated to remain below 2019 levels until after 2023.

### **Forecasting Models**

IHS Markit used custom models to forecast sales and use tax collections, motor vehicle excise tax collections, individual income tax collections, and corporate income tax collections. The forecasting models are based on data from IHS Markit's existing macroeconomic models for the United States as well as data from industry-specific forecasts. The models are similar to the models used during the 2017-18 interim with changes to the economic drivers. The economic drivers reflect the strongest correlation between the economic activity and the tax collections.

The model to forecast the sales and use tax collections was modified for the 2019-20 interim to estimate the taxable sales for each of North Dakota's 15 industry sectors. The estimates for the sectors are aggregated, and the tax rate is applied to calculate the tax collections. The primary drivers for the sectors include new producing oil wells, industry employment, and gross state product.

The motor vehicle excise tax collections are driven primarily by new car registrations. The primary economic drivers to forecast individual income tax collections are wage withholdings and property income, which includes rental income, royalty income, and dividend income. New producing oil wells are the primary drivers to forecast corporate income tax collections. After calculating the individual and corporate income tax collections, the estimated transfers to the refund reserve accounts are removed. The refund reserve accounts are used to pay refunds and the estimated transfers are based on historical transfers.

### **Forecasting Results**

The committee received information from IHS Markit regarding the results from the forecasting models. The schedules below provide information on the 2019-21 biennium revised general fund revenue forecast and the 2021-23 biennium preliminary general fund revenue forecast based on estimates prepared by OMB and by IHS Markit.

2019-21 Biennium Revised Revenue Forecasts						
	OMB Forecast	IHS - Baseline Forecast	Increase (Decrease)		IHS - Pessimistic Forecast	IHS - Optimistic Forecast
			Amount	Percent		
Sales and use tax	\$1,771,298,564	\$1,826,825,051	\$55,526,487	3.1%	\$1,684,761,587	\$1,855,273,507
Motor vehicle excise tax	225,871,814	226,192,324	320,510	0.1%	219,923,184	229,747,134
Individual income tax	792,937,603	765,234,287	(27,703,316)	(3.5%)	743,991,209	771,287,917
Corporate income tax	178,960,333	153,640,874	(25,319,459)	(14.1%)	141,826,712	171,793,816
<b>Total major tax types</b>	<b>\$2,969,068,314</b>	<b>\$2,971,892,536</b>	<b>\$2,824,222</b>	<b>0.1%</b>	<b>\$2,790,502,692</b>	<b>\$3,028,102,374</b>

2021-23 Biennium Preliminary Revenue Forecasts						
	OMB Forecast	IHS - Baseline Forecast	Increase (Decrease)		IHS - Pessimistic Forecast	IHS - Optimistic Forecast
			Amount	Percent		
Sales and use tax	\$1,700,264,000	\$1,888,021,935	\$187,757,935	11.0%	\$1,481,836,505	\$2,015,618,065
Motor vehicle excise tax	237,728,000	220,561,100	(17,166,900)	(7.2%)	216,226,990	223,720,130
Individual income tax	782,127,000	777,059,176	(5,067,824)	(0.6%)	735,307,909	797,983,478
Corporate income tax	189,033,000	176,130,710	(12,902,290)	(6.8%)	101,480,677	201,966,670
<b>Total major tax types</b>	<b>\$2,909,152,000</b>	<b>\$3,061,772,921</b>	<b>\$152,620,921</b>	<b>5.2%</b>	<b>\$2,534,852,081</b>	<b>\$3,239,288,343</b>

The schedules below provide information on forecasted oil prices, oil production, and new producing oil wells based on estimates prepared by IHS Markit.

West Texas Intermediate Oil Prices (Calendar Year Average)						
	2020	2021	2022	2023	2024	2025
Baseline forecast	\$36.13	\$46.64	\$52.71	\$53.25	\$53.51	\$54.10
<b>Alternate scenarios</b>						
Pessimistic forecast	\$32.23	\$29.50	\$34.02	\$44.20	\$51.36	\$52.67
Optimistic forecast	\$39.60	\$54.86	\$57.44	\$54.08	\$53.99	\$54.58

North Dakota Oil Production (Average Barrels Per Day by Calendar Year)						
	2020	2021	2022	2023	2024	2025
Baseline forecast	1,180,000	1,110,000	1,140,000	1,190,000	1,220,000	1,230,000
<b>Alternate scenarios</b>						
Pessimistic forecast	1,170,000	1,040,000	920,000	870,000	880,000	930,000
Optimistic forecast	1,190,000	1,200,000	1,280,000	1,330,000	1,360,000	1,380,000

New Producing Oil Wells (Per Calendar Year)						
	2020	2021	2022	2023	2024	2025
Baseline forecast	131	532	723	833	854	843
<b>Alternate scenarios</b>						
Pessimistic forecast	76	129	162	411	738	751
Optimistic forecast	197	903	915	846	870	856

### Recommendation

The committee makes no recommendation regarding the study of state revenues and state revenue forecasts. However, IHS Markit will provide additional updates to the Appropriations Committees during the 2021 legislative session regarding economic forecasting data, including general fund revenue estimates, oil price estimates, and oil production estimates for the remainder of the 2019-21 biennium and for the 2021-23 biennium.