
September 22, 2020

North Dakota Revenue Outlook

IHS Markit

Presentation



Biennium forecast

Revenue Source	2017-19 Biennium Actual	2019-21 Biennium Forecast (Original)	2019-21 Biennium Forecast	2021-23 Biennium Forecast
Sales and use tax	1,786,479,717	1,868,262,000 4.6%	1,826,825,051 2.3%	1,888,021,935 3.3%
Motor vehicle excise tax	239,039,038	249,951,800 4.6%	226,192,324 -5.4%	220,561,100 -2.5%
Individual income tax				
Total individual income tax collections	961,072,888		1,009,034,287 5.0%	1,019,059,176 1.0%
Transfer to refund reserve accounts	(183,000,000)		(243,800,000)	(242,000,000)
Net individual income tax collections	778,072,888	803,305,000 3.2%	765,234,287 -1.7%	777,059,176 1.5%
Corporate income tax				
Total corporate income tax collections	299,456,537		197,640,874 -34.0%	241,130,710 22.0%
Transfer to refund reserve accounts	(58,000,000)		(44,000,000)	(65,000,000)
Net corporate income tax collections	241,456,537	132,268,000 -45.2%	153,640,874 -36.4%	176,130,710 14.6%

* The percentages reflect the change from the prior biennium.

Fiscal year forecast

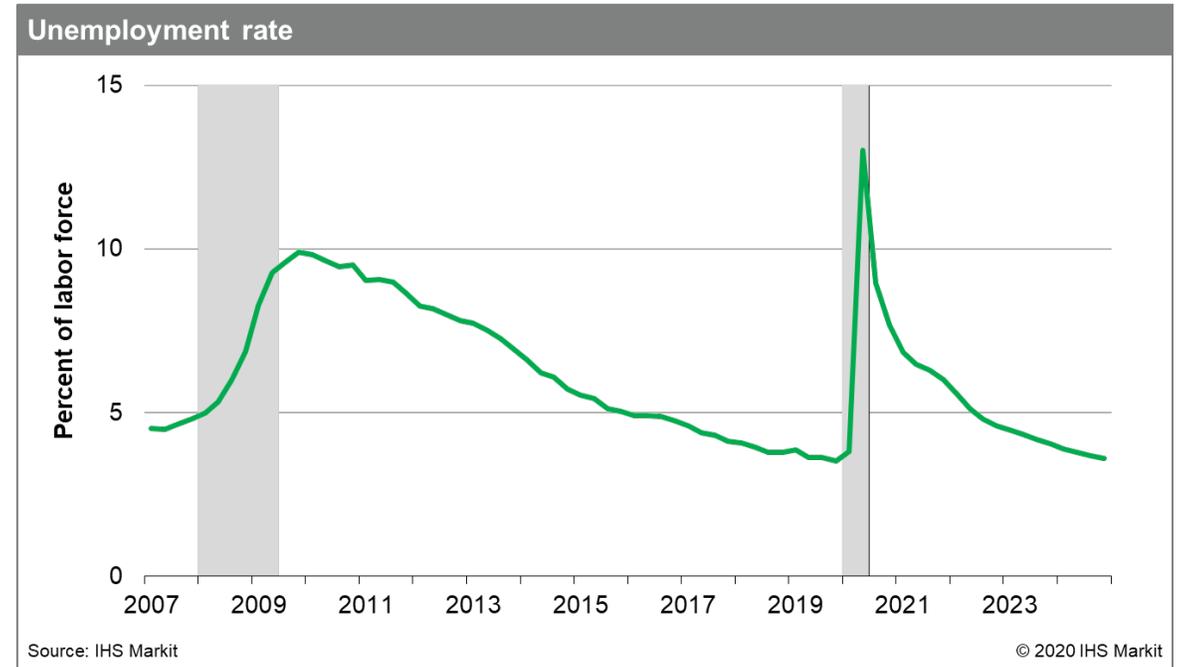
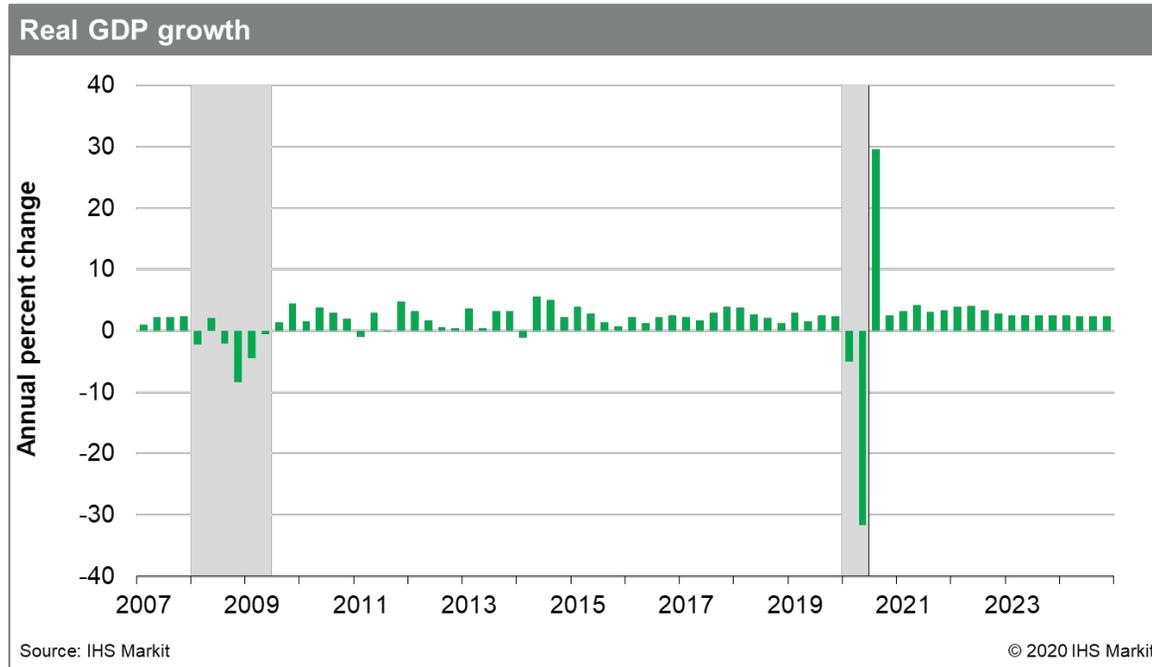
Revenue Source	2017-19 Biennium		2019-21 Biennium		2021-23 Biennium	
	Fiscal Year 2018 Actual	Fiscal Year 2019 Actual	Fiscal Year 2020 Actual	Fiscal Year 2021 Forecast	Fiscal Year 2022 Forecast	Fiscal Year 2023 Forecast
Sales and use tax	829,120,206 4.6%	957,359,511 15.5%	970,559,564 1.4%	856,265,487 -11.8%	912,293,694 6.5%	975,728,242 7.0%
Motor vehicle excise tax	114,342,237 -1.0%	124,696,801 9.1%	119,506,814 -4.2%	106,685,510 -10.7%	107,656,300 0.9%	112,904,800 4.9%
Individual income tax						
Total individual income tax collections	459,254,125 7.9%	501,818,763 9.3%	467,896,604 -6.8%	541,137,683 15.7%	502,018,825 -7.2%	517,040,352 3.0%
Transfer to refund reserve accounts	(95,000,000)	(88,000,000)	(115,800,000)	(128,000,000)	(119,000,000)	(123,000,000)
Net individual income tax collections	364,254,125 16.5%	413,818,763 13.6%	352,096,604 -14.9%	413,137,683 17.3%	383,018,825 -7.3%	394,040,352 2.9%
Corporate income tax						
Total corporate income tax collections	129,874,848 25.9%	169,581,689 30.6%	112,654,676 -33.6%	84,986,198 -24.6%	116,106,350 36.6%	125,024,360 7.7%
Transfer to refund reserve accounts	(37,000,000)	(21,000,000)	(21,000,000)	(23,000,000)	(31,000,000)	(34,000,000)
Net corporate income tax collections	92,874,848 34.2%	148,581,689 60.0%	91,654,676 -38.3%	61,986,198 -32.4%	85,106,350 37.3%	91,024,360 7.0%

* The percentages reflect the change from the prior fiscal year.

Bounce and fade in U.S. economic outlook

- GDP growth reached a bottom in April amid widespread shutdowns and recovery began in May. Robust increases in GDP from April through June still left real GDP almost 40% beneath its February level. GDP rose in July, but by far less than in the prior two months, and high-frequency indicators are mixed in their implications for August.
- A record-setting GDP increase in the third quarter is all but guaranteed. Implicit in our forecast of 29.6% growth in the third quarter are moderate declines in its last two months. This “fade” continues into the fourth quarter, when we expect real GDP growth to slow to 2.5%. Key reasons include an overshoot in consumer spending on durable goods, dwindling fiscal support, and the persistence of the COVID-19 pandemic into mid-2021.
- Payroll gains have slowed. August payrolls increased 1.4 million, leaving employment 7.6% below the prior peak. The unemployment rate fell 1.8 percentage points to 8.4%.
- Residential construction has been a bright spot during the pandemic, falling by less and recovering faster than initially expected.
- Stronger initial data have led us to revise up our forecast of real GDP growth in 2020 from -4.8% to -4.0%. We project growth of 3.5% in 2021 and 3.6% in 2022. GDP surpasses its previous peak early in 2022, and the economy regains full employment in mid-2023—both slightly earlier than in last month’s forecast.

Historic contraction in U.S. in the second quarter of 2020; vaccine assumed to become available by mid-2021 leading to acceleration in the economy



Bottom line for the U.S. economy

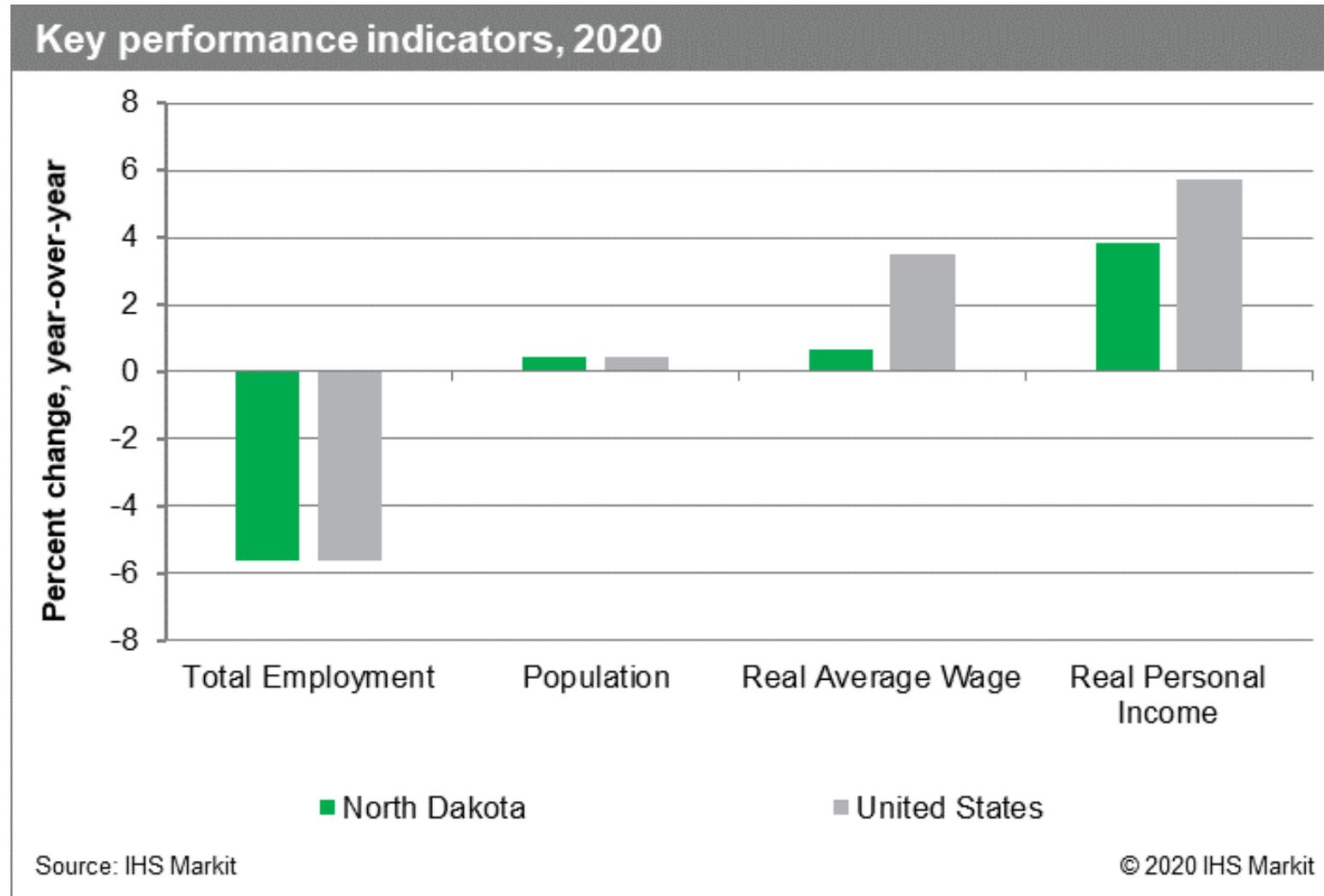
- Real GDP shrank 31.7% in the second quarter, easily the sharpest quarterly decline on record.
- High frequency data suggest a recovery began in April—robust enough to leave GDP positioned to grow 29.6% in the third quarter.
- Those same data show growth fading—we expect GDP growth to slow to just 2.5% in the fourth quarter.
- While the recession emanates from a shock to consumer spending, most components of private final sales will post sharp declines in 2020.
- Housing has been a bright spot, recovering earlier than expected.
- GDP regains its previous peak in early 2022; the economy reaches full employment in mid-2023.
- The Fed will encourage inflation temporarily above the 2% objective.

North Dakota Outlook

Short Term Outlook for North Dakota					
September 2020 Forecast					
	2019	2020	2021	2022	2023
Establishment Employment (Thousands)					
Total Non-Agricultural	439.2	414.6	416.2	422.3	431.2
Pct. Ch. Ann. Rate	1.0	-5.6	0.4	1.5	2.1
Manufacturing	26.4	25.2	25.2	25.6	26.0
Pct. Ch. Ann. Rate	1.7	-4.5	-0.1	1.6	1.6
Durables	17.7	16.5	16.2	16.5	16.8
Machinery	6.0	5.8	5.4	5.5	5.6
Nondurables	8.7	8.7	9.0	9.0	9.2
Food Manufacturing	4.9	4.9	5.2	5.1	5.2
Non-Manufacturing	412.8	389.4	391.0	396.7	405.2
Pct. Ch. Ann. Rate	0.9	-5.7	0.4	1.4	2.2
Construction & Mining	49.4	43.0	37.9	38.1	40.2
Pct. Ch. Ann. Rate	5.6	-13.0	-11.8	0.4	5.5
Resident Employment & Unemployment (Thousands)					
Total Employment	394.0	381.3	381.0	385.2	391.6
Pct. Ch. Ann. Rate	0.2	-3.2	-0.1	1.1	1.7
Labor Force	403.6	403.4	399.4	399.8	404.0
Labor Force Partic Rate	67.3	67.0	66.3	66.3	66.7
Number Unemployed	9.6	22.1	18.4	14.7	12.4
Unemployment Rate	2.4	5.5	4.6	3.7	3.1
Source: IHS Markit					

North Dakota Outlook

Short Term Outlook for North Dakota					
September 2020 Forecast					
	2019	2020	2021	2022	2023
Personal Income (Billions \$)					
Total Personal Income	43.8	46.1	43.7	45.6	48.2
Pct. Ch. Ann. Rate	4.0	5.1	-5.1	4.4	5.5
Real Personal Income	44.2	45.9	42.7	43.7	45.3
Pct. Ch. Ann. Rate	2.3	3.8	-7.0	2.3	3.6
Real Disposable Income	39.9	41.7	38.6	39.5	40.9
Real Per Capita Income (Ths)	58.0	60.0	55.8	57.0	58.7
Med. Household Income (Ths)	67.1	69.4	69.6	70.6	72.9
Avg. Annual Wage (Ths)	53.3	54.3	55.4	57.3	59.2
Real Gross State Product, NAICS Based (Billions 2012\$)					
Total GSP	54.1	51.5	51.0	52.3	54.5
Pct. Ch. Ann. Rate	2.3	-4.9	-0.9	2.6	4.1
Housing					
Total Housing Starts (Ths)	2.5	3.2	3.3	3.1	3.0
Population (Thousands)					
Total Population	762.6	766.0	766.5	767.6	770.8
Pct. Ch. Ann. Rate	0.5	0.4	0.1	0.1	0.4
Source: IHS Markit					

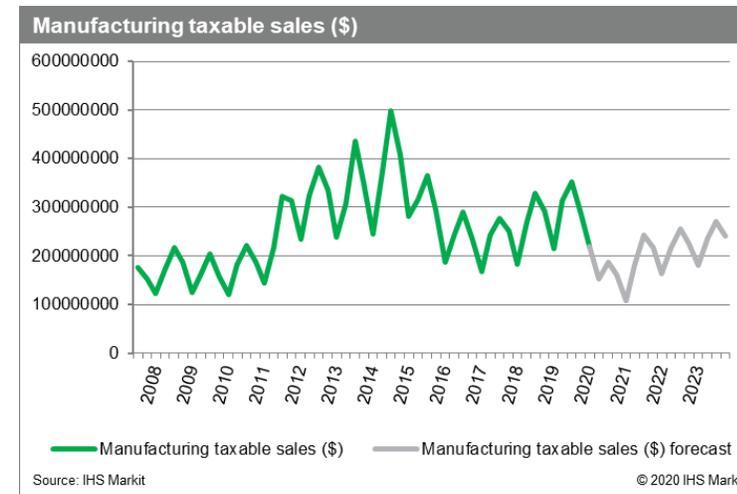
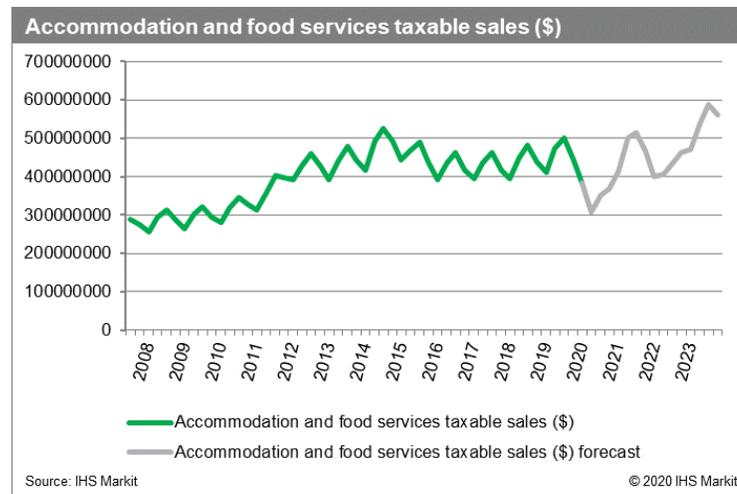
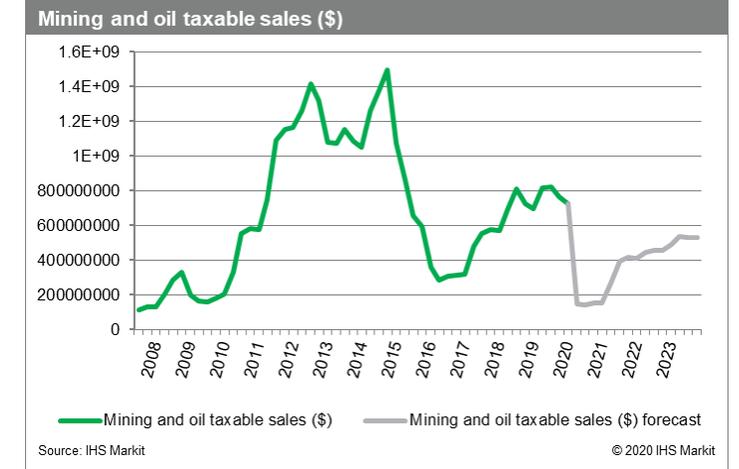
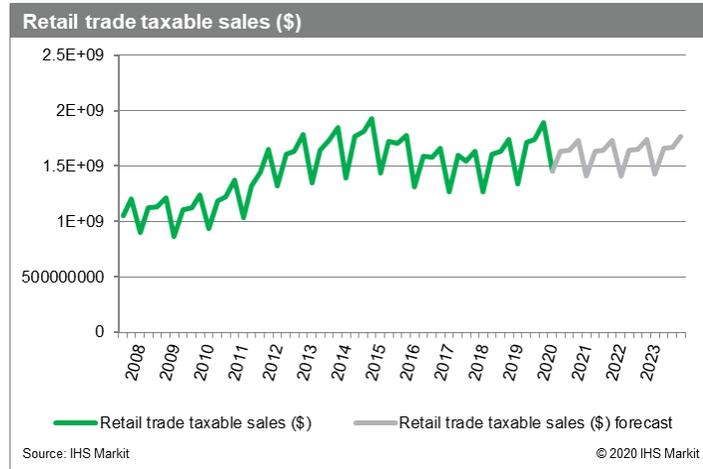


Economic indicators used in the tax model

REVENUE SOURCE	ECONOMIC DRIVER	DESCRIPTION
Sales and Use tax	<ul style="list-style-type: none"> •Bakken new producing wells •Employment by sector •Gross state product by sector 	Taxable sales are divided into 15 different sectors and the sectors are individually modeled. The main drivers of these models are the new producing wells in the Bakken play, sector employment numbers and gross state product by sector. The forecast of the sectors are summed to total taxable sales then the sales and use tax revenue forecast is calculated.
Motor vehicle excise tax	<ul style="list-style-type: none"> •New passenger and light truck registrations (ND state) 	The motor vehicle excise tax base is best captured by the state's new vehicle registrations (including new passenger car and light truck).
Individual income tax	<ul style="list-style-type: none"> •Total wage disbursements (ND state) •Personal income, dividends interest and rent (ND state) 	<p>The tax base of individual income tax submitted as <u>withholdings</u> is relatively stable and largely driven by total wage income in the state.</p> <p>The tax base of individual income tax submitted as <u>estimated payments</u>, on the other hand, is more volatile due to the nature of capital gains realization. That being said, a reasonable amount of variations in the tax base of individual income estimated payments is captured by the state's property income, i.e., rental income of persons, personal dividend income, and personal interest income.</p>
Corporate income tax	<ul style="list-style-type: none"> •Bakken new producing wells 	The tax base of corporate income tax is mainly driven by by the Bakken new producing wells, as it affects oil company's profits.

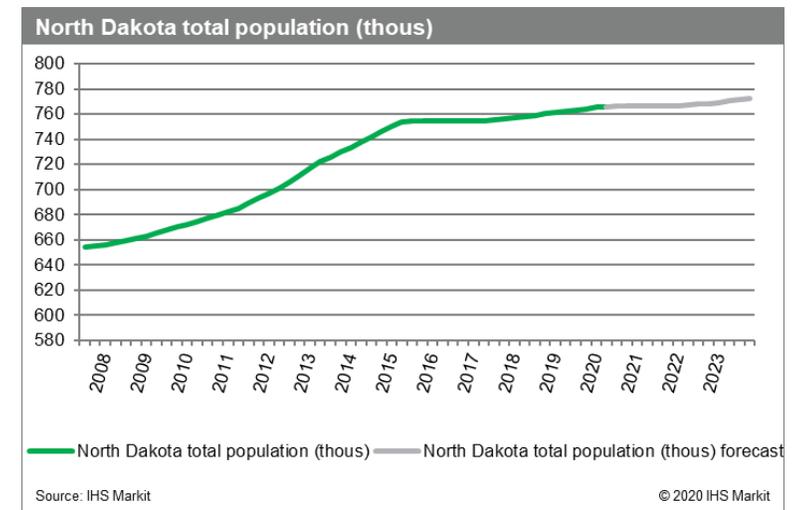
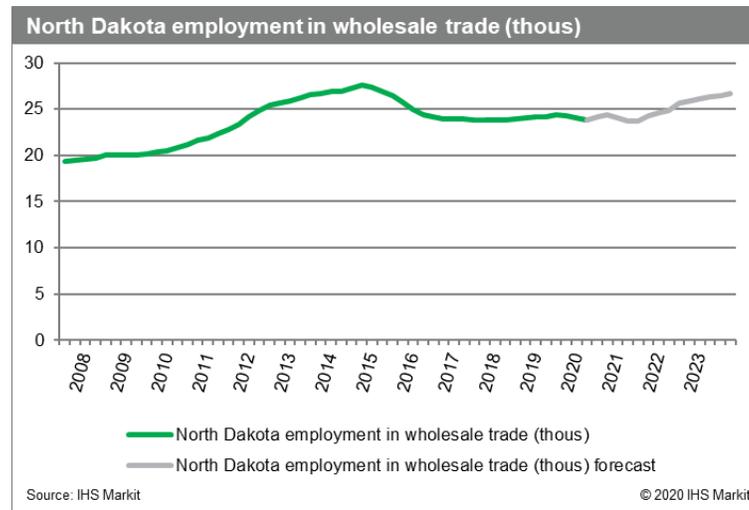
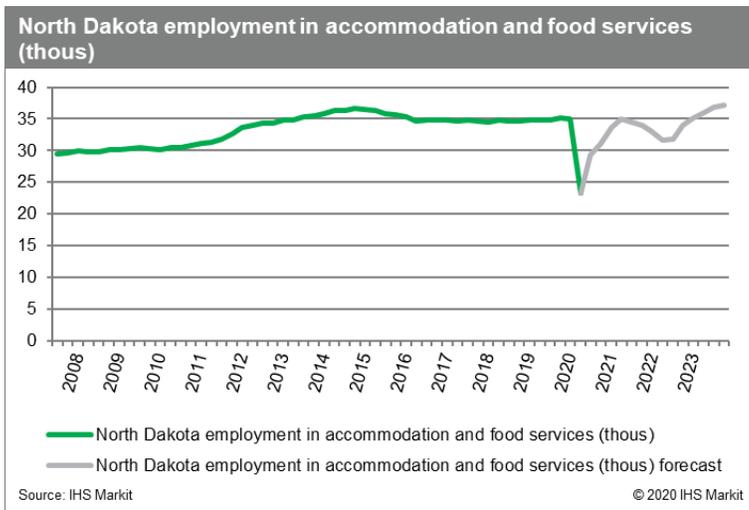
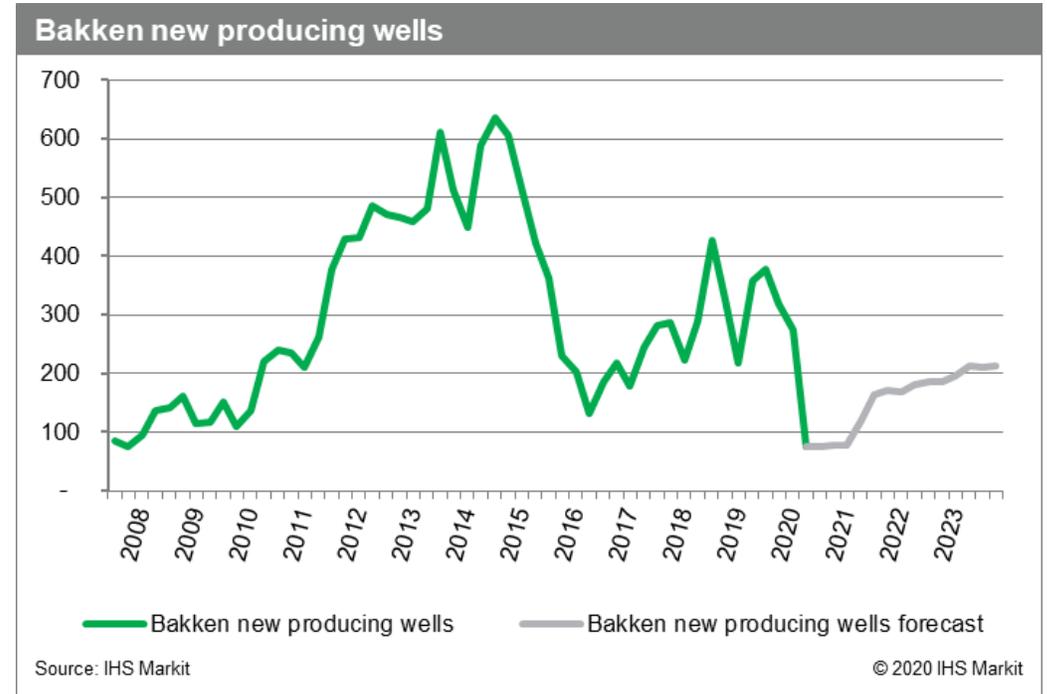
Taxable sales by sector

- There are fifteen taxable sales sectors that are modeled. The five largest sectors are retail trade, wholesale trade, mining and oil, accommodation and food services, and manufacturing.

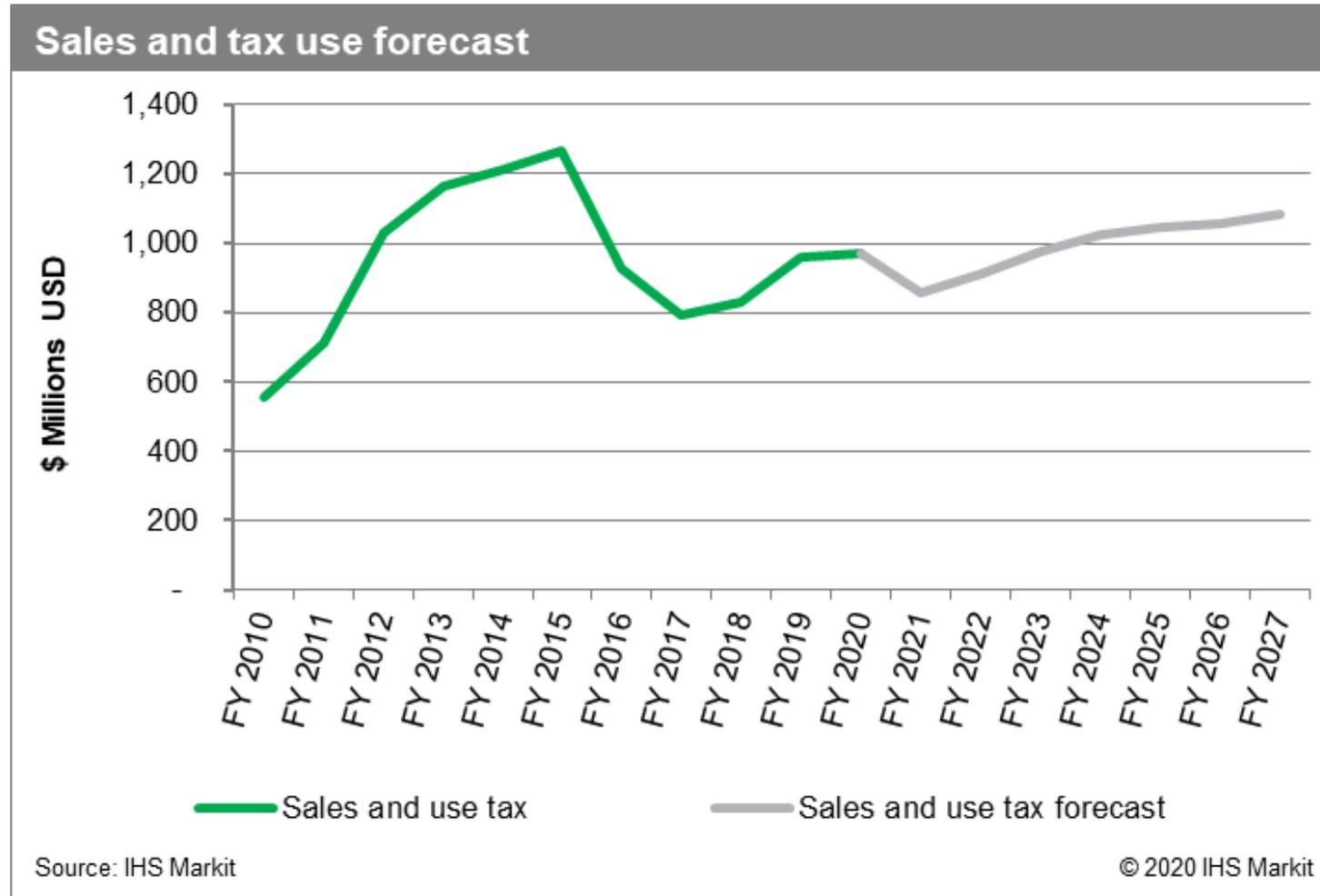


Drivers of taxable sales sectors

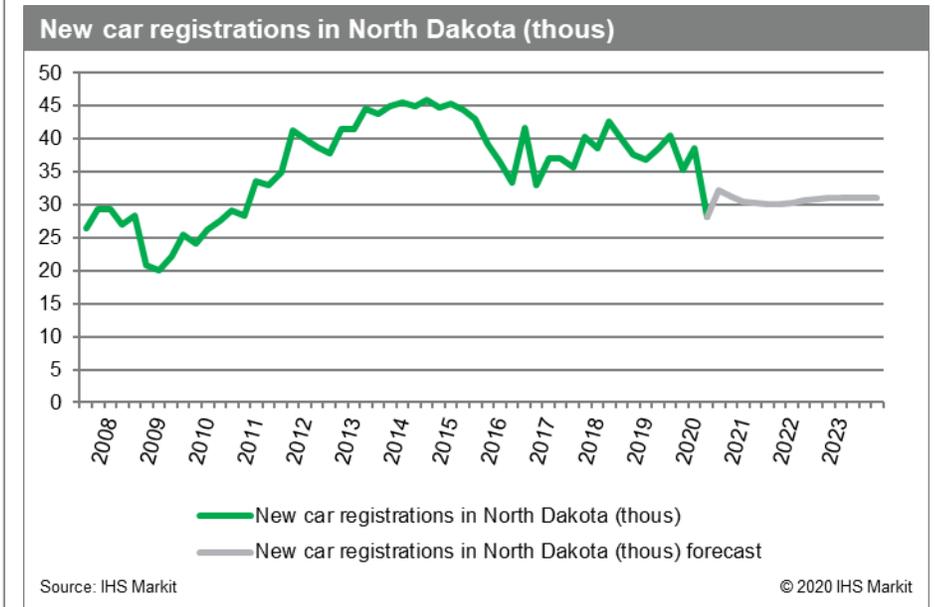
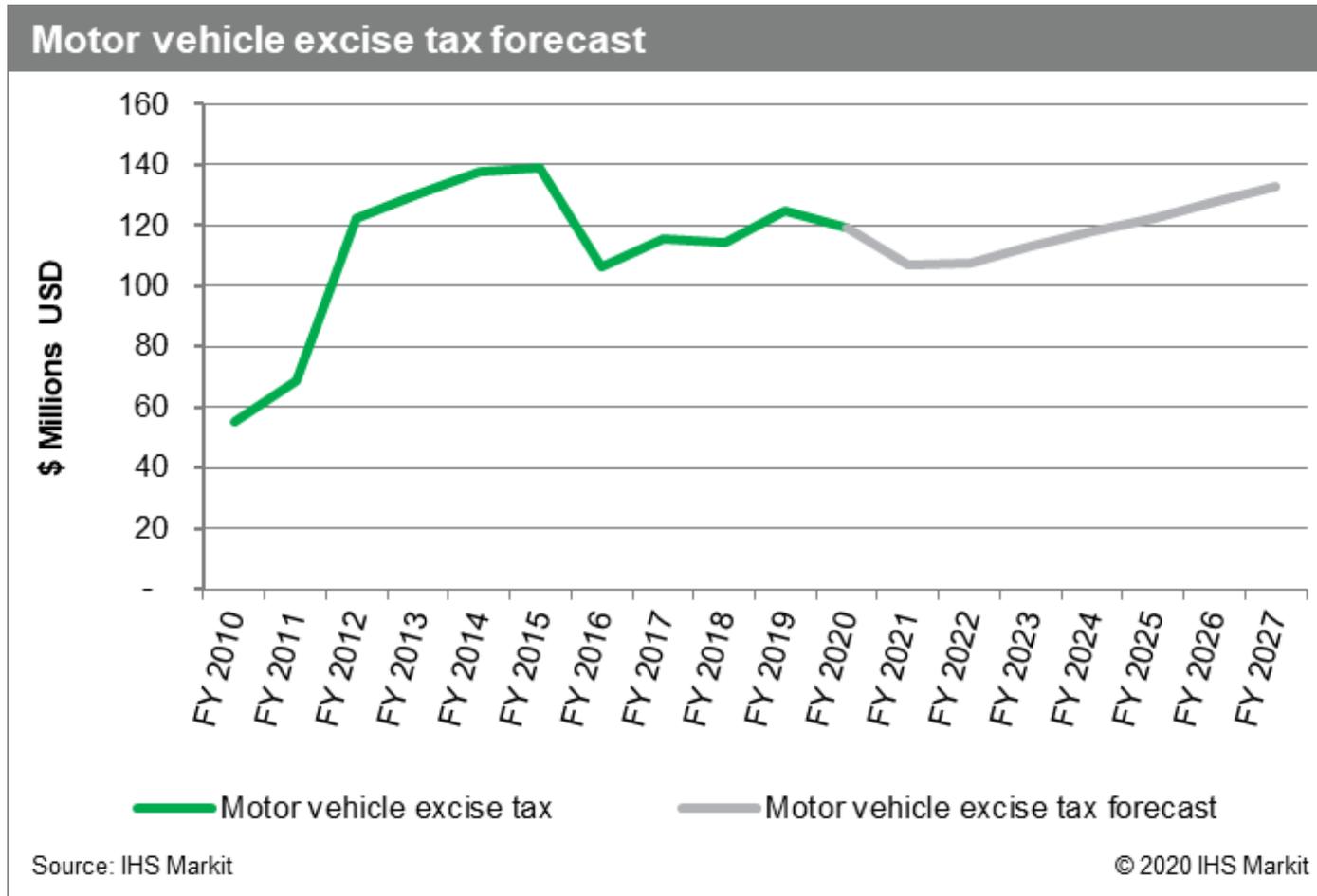
- The number of new producing wells in the Bakken play is the main driver in four of the five largest taxable sales sectors; these sectors are wholesale trade, mining and oil, accommodation and food services, and manufacturing
- Of the fifteen taxable sales models, nine include Bakken new producing wells as a driver.
- Sector-specific employment and gross state product numbers for North Dakota are also used as drivers for some sector models like retail trade, wholesale trade, and accommodation and food services.



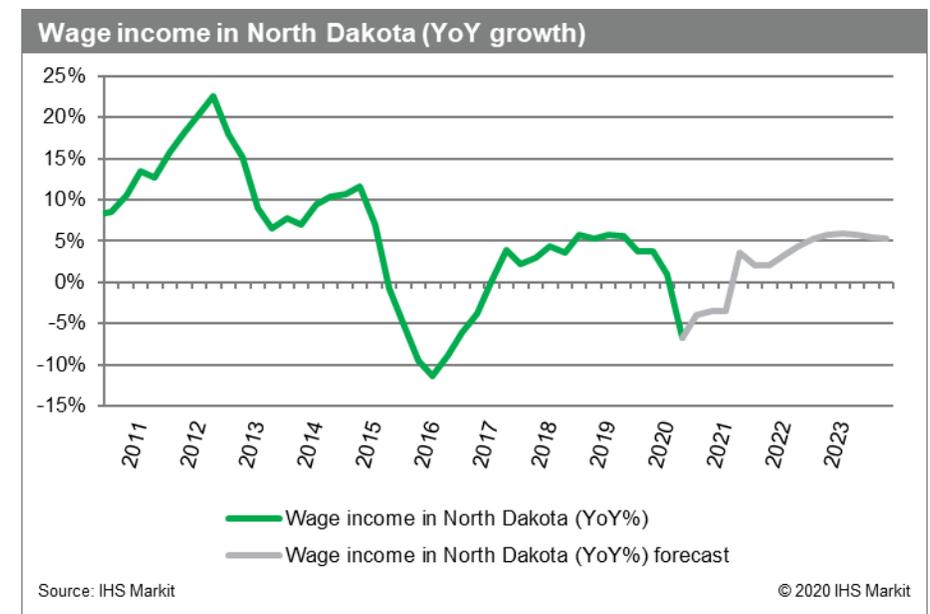
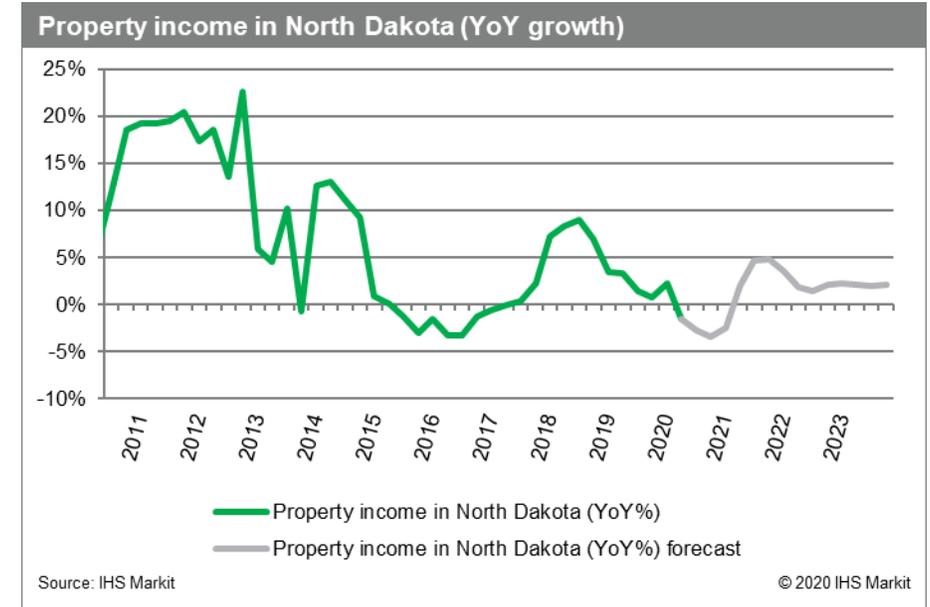
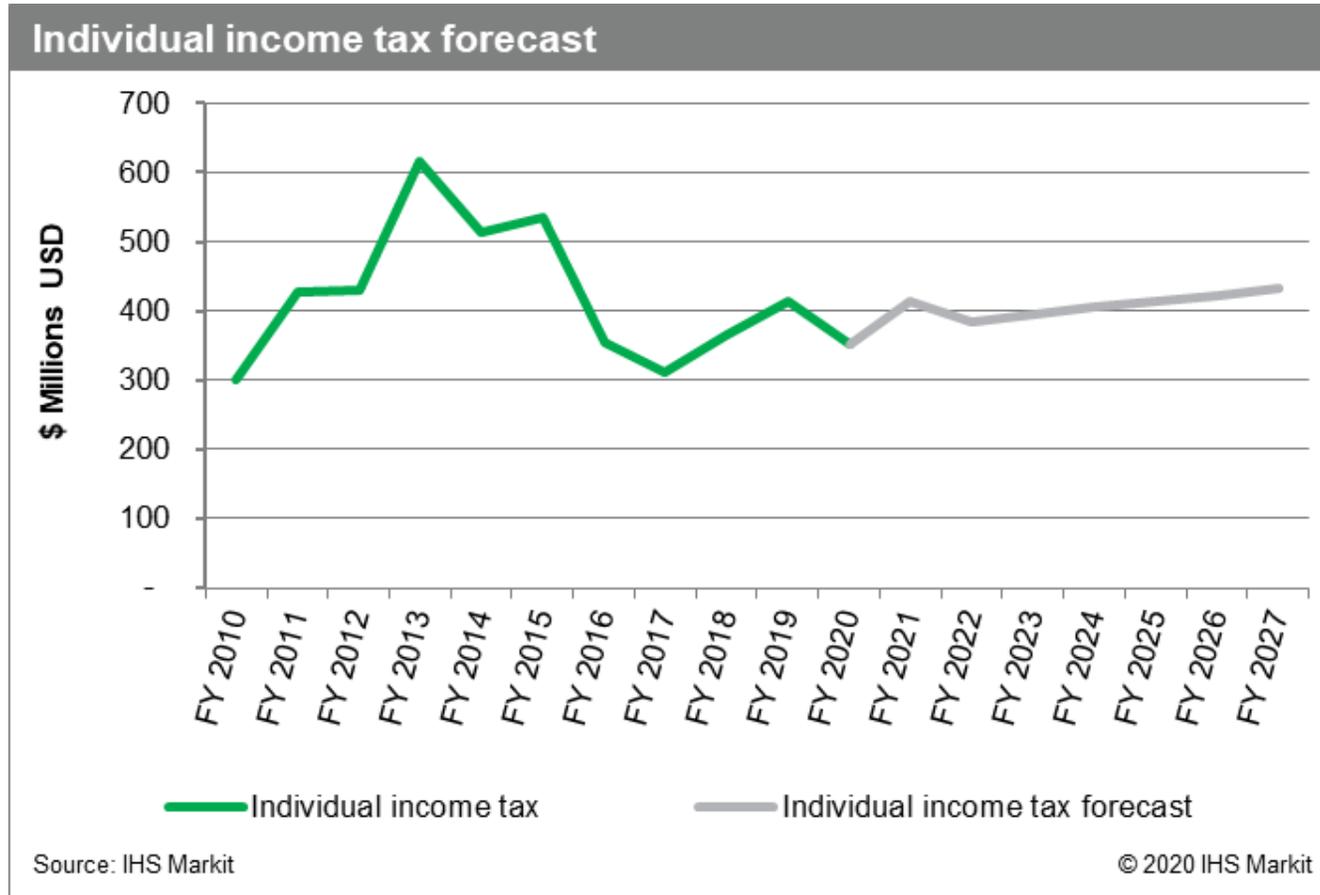
Sales and use tax revenue



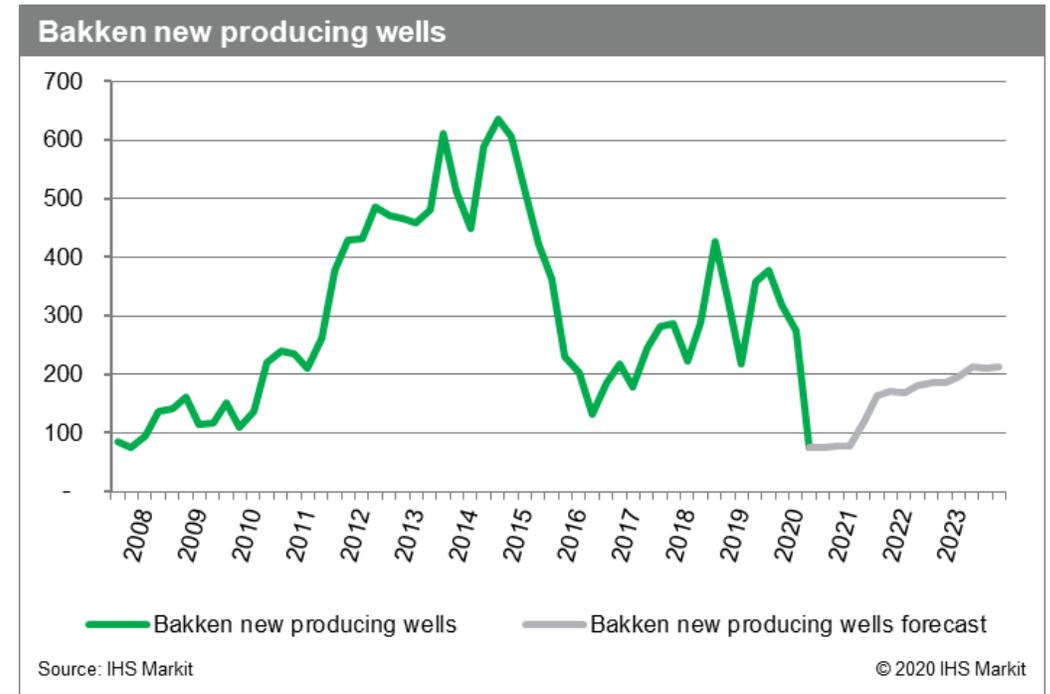
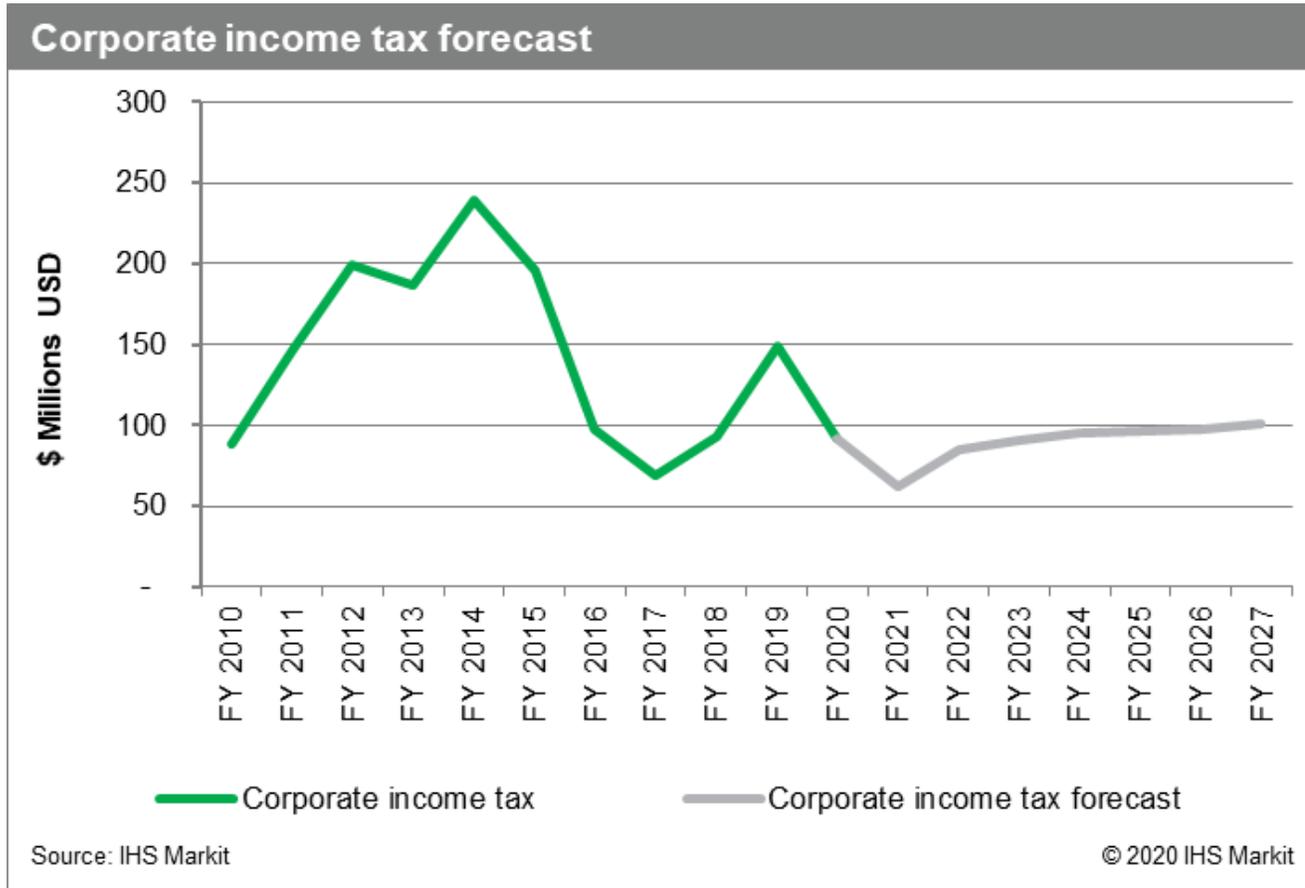
Motor vehicle excise tax revenue



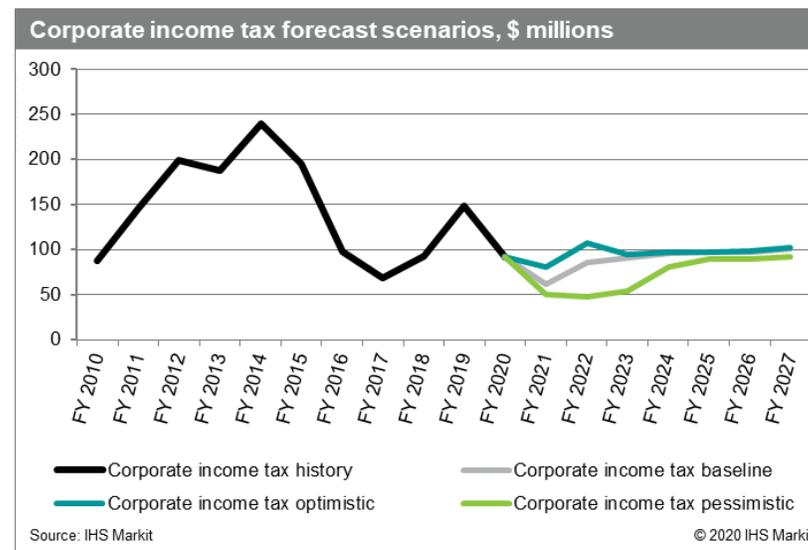
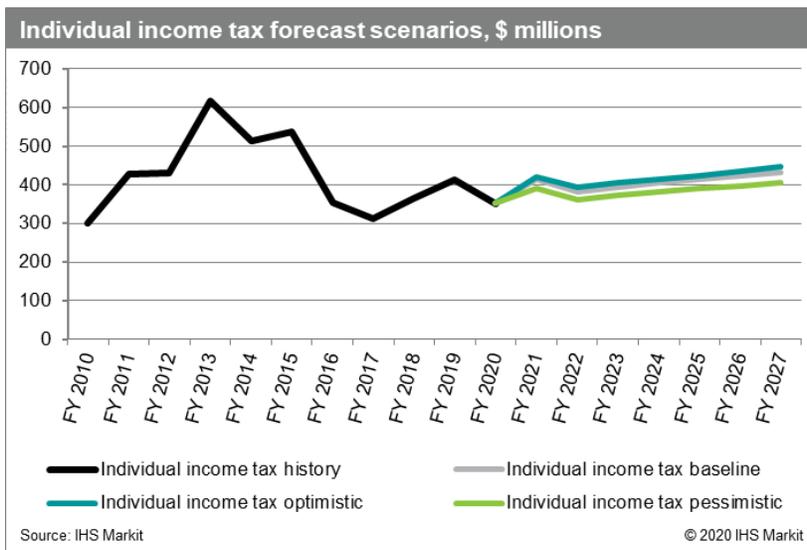
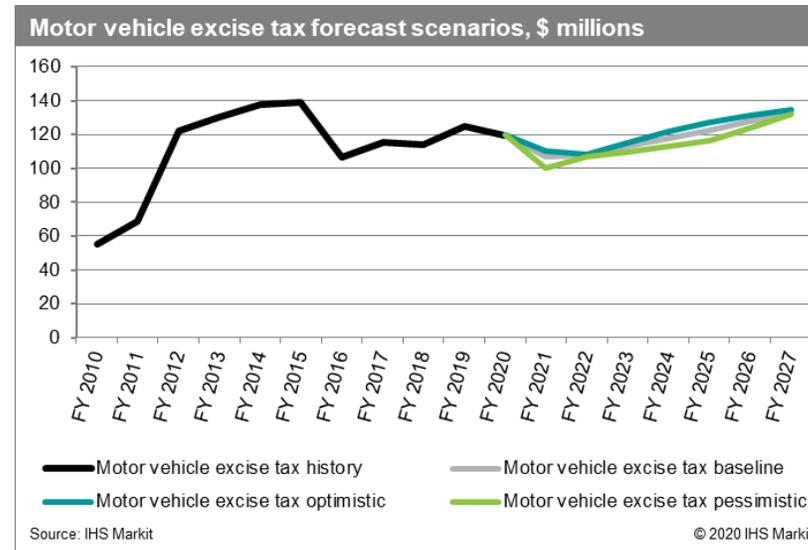
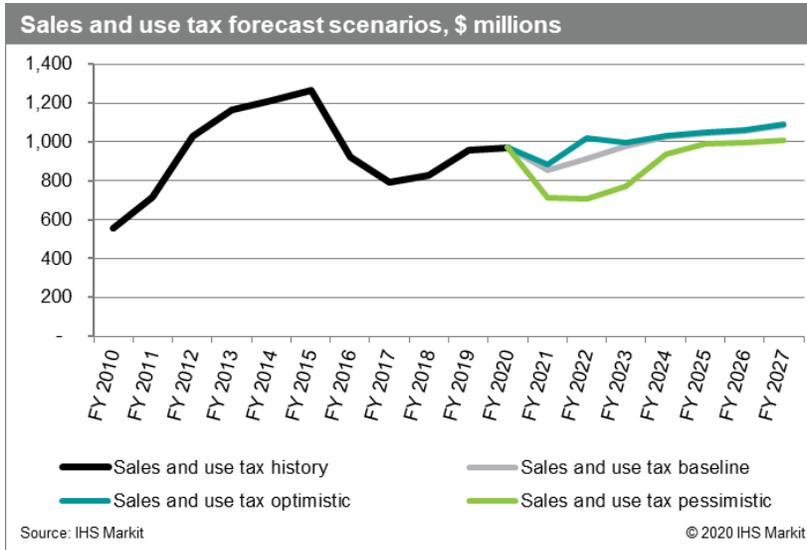
Individual income tax revenue



Corporate income tax revenue



Optimistic and pessimistic scenarios



Optimistic and pessimistic scenarios

Revenue Source	2019-21 Biennium Baseline	2019-21 Biennium Optimistic	2019-21 Biennium Pessimistic
Sales and use tax	1,826,825,051 2.3%	1,855,273,507 3.9%	1,684,761,587 -5.7%
Motor vehicle excise tax	226,192,324 -5.4%	229,747,134 -3.9%	219,923,184 -8.0%
Net individual income tax	765,234,287 -1.7%	771,287,917 -0.9%	743,991,209 -4.4%
Net corporate income tax	153,640,874 -36.4%	171,793,816 -28.9%	141,826,712 -41.3%

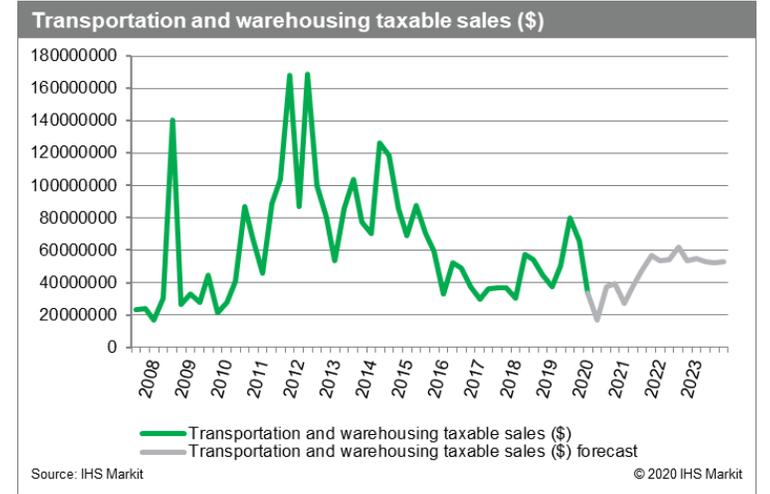
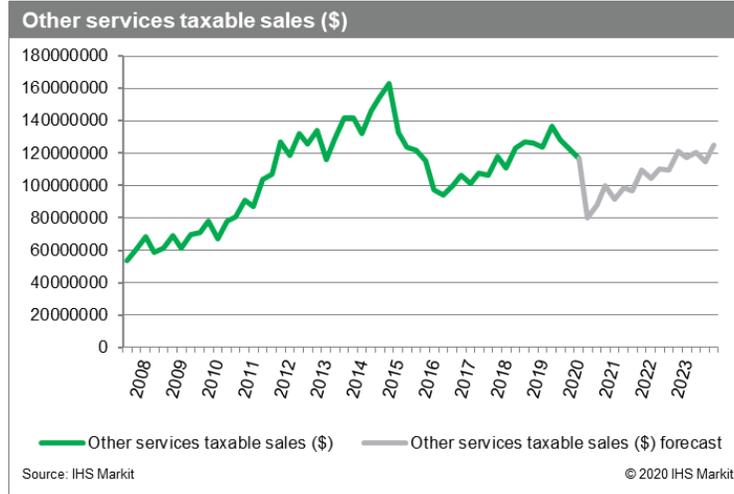
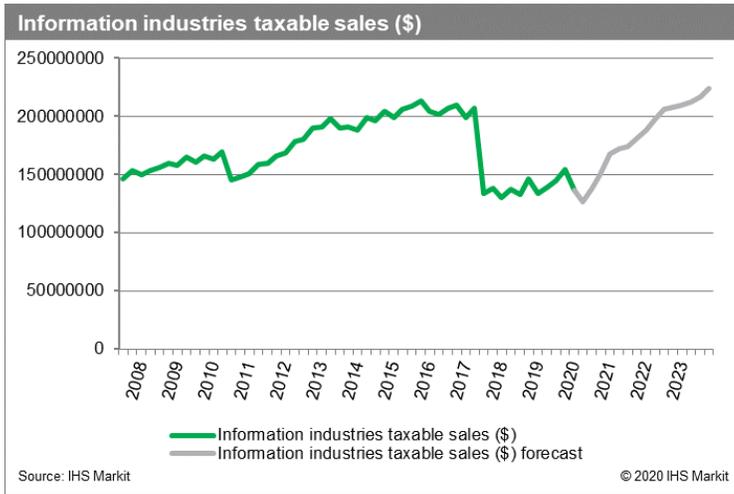
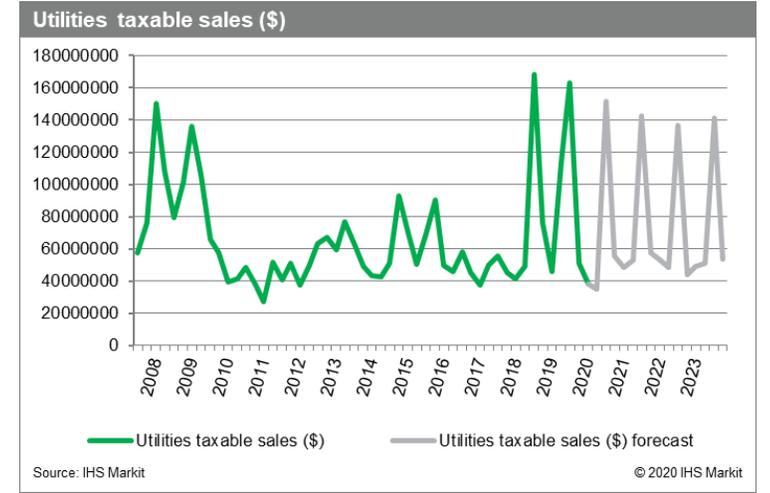
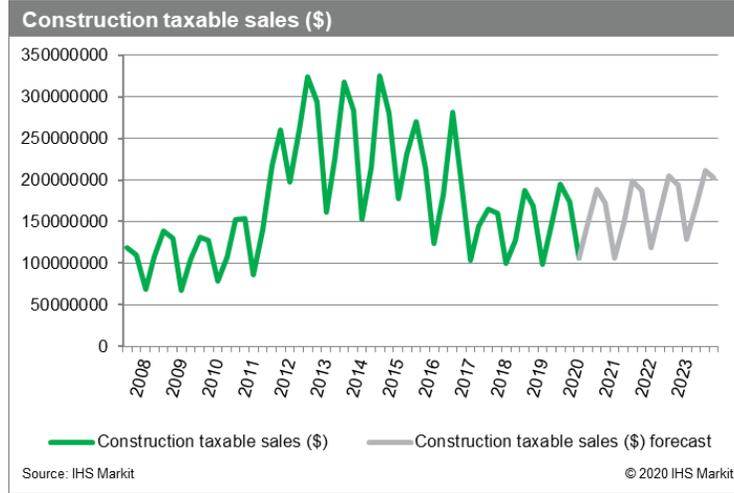
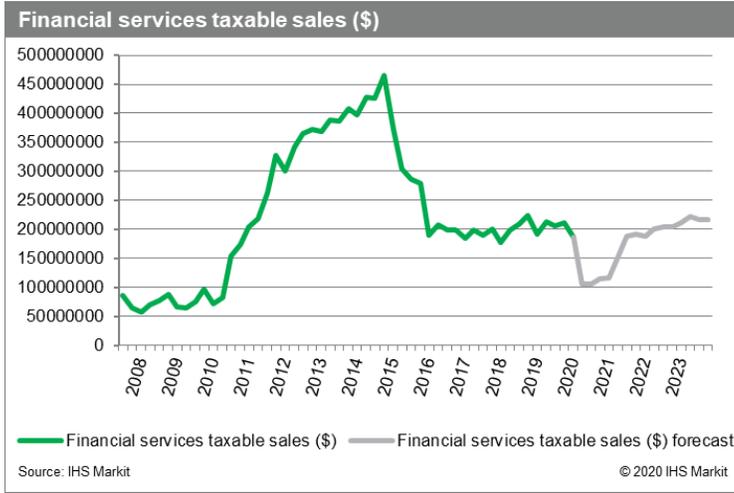
Revenue Source	2021-23 Biennium Baseline	2021-23 Biennium Optimistic	2021-23 Biennium Pessimistic
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Motor vehicle excise tax	220,561,100 -2.5%	223,720,130 -2.6%	216,226,990 -1.7%
Net individual income tax	777,059,176 1.5%	797,983,478 3.5%	735,307,909 -1.2%
Net corporate income tax	176,130,710 14.6%	201,966,670 17.6%	101,480,677 -28.4%

* The percentages reflect the change from the prior biennium.

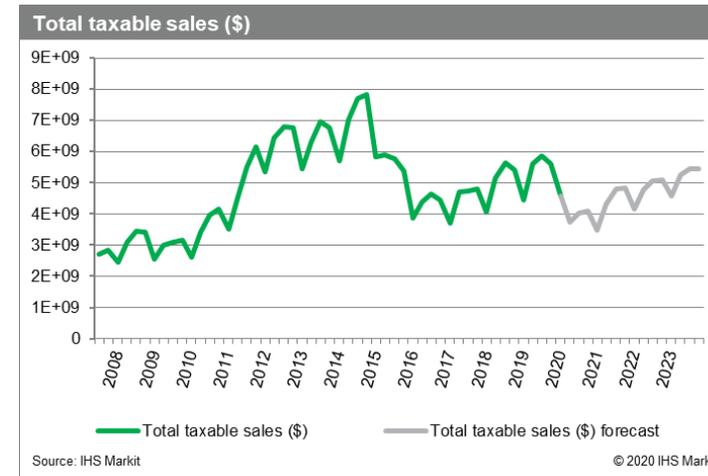
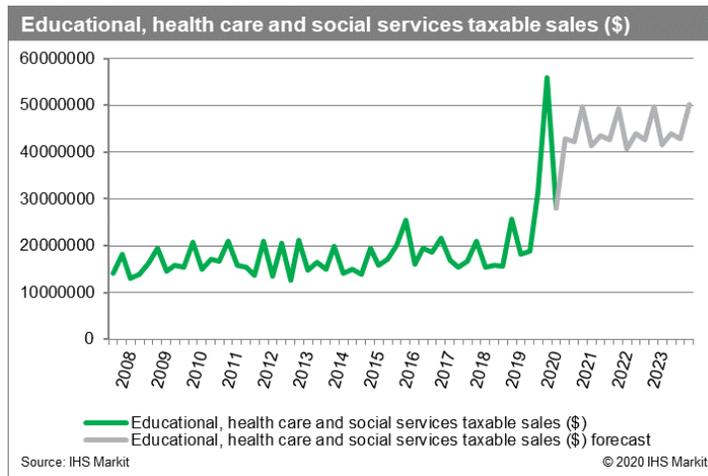
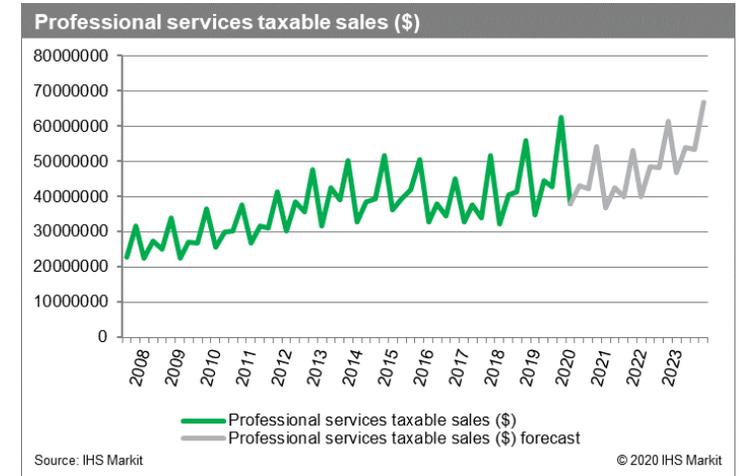
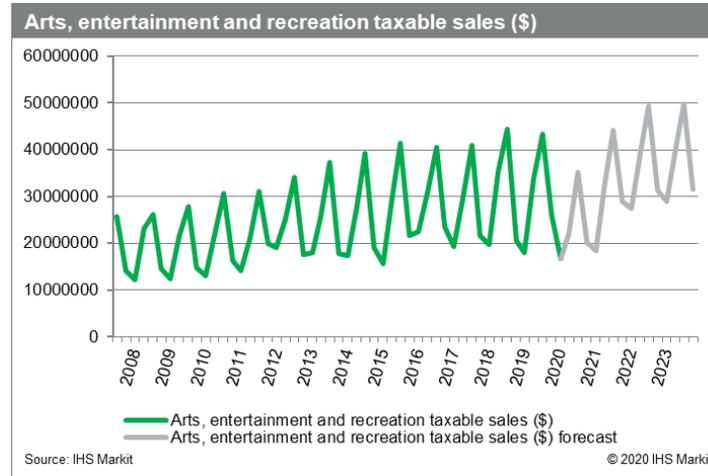
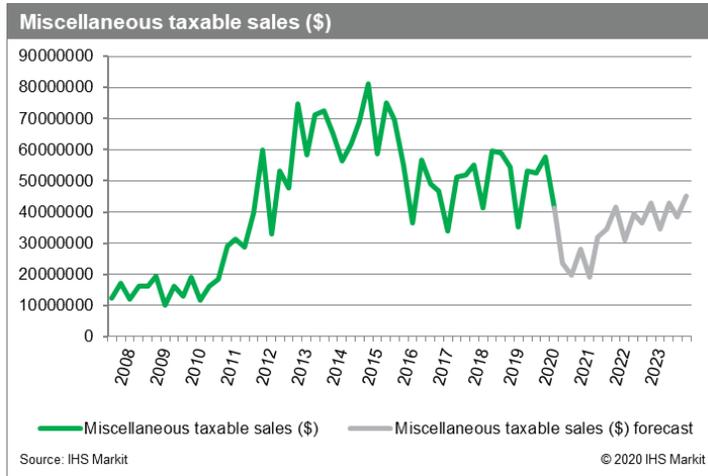
Q&A

Appendix

Forecast of remaining taxable sales sectors



Forecast of remaining taxable sales sectors



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