

### Corporation Income Tax

#### Revenue Description

The corporation income tax is levied against a corporation's net income earned in or attributable to Montana, adjusted for allowable credits.

#### Statutory Reference

Tax Rate – [15-31-121, MCA](#)

Tax Distribution – [15-31-121, MCA](#)

Date Due – 15<sup>th</sup> day of the fifth month following the close of the corporation fiscal year ([15-31-111, MCA](#) and [15-31-502, MCA](#)). Estimated taxes due April 15<sup>th</sup>, June 15<sup>th</sup>, September 15<sup>th</sup>, and December 15<sup>th</sup> ([15-31-502, MCA](#)).

#### Applicable Tax Rates

The tax rate is 6.75%, except for corporations making a "water's edge" election ([15-31-322, MCA](#)), who pay a 7.0% tax on their net income.

**Collection Frequency:** Monthly, quarterly and annually

**Distribution:** All proceeds are deposited into the general fund.

#### Revenue Estimate Methodology

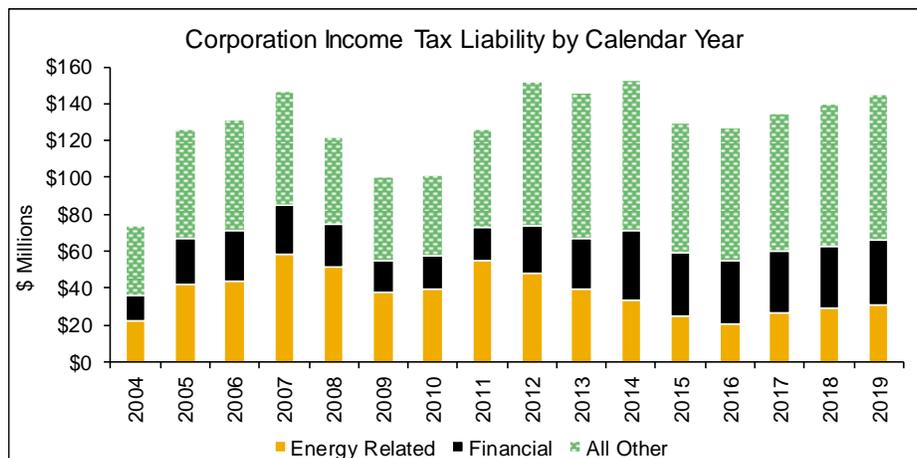
##### Data

The estimate for this source is based on collection data from SABHRS, corporation income tax return data from DOR, and various historical and forecast economic indicators from IHS. The return data is lagged by nearly two years for two main reasons: each tax year includes all returns from corporations whose fiscal year began in that particular tax year; and corporations are allowed up to 10.5 months after the end of the tax year to file a return.

##### Analysis

Montana corporation tax liability is forecast using a variety of IHS economic variables as predictors. These variables are used to forecast calendar year tax liability by sector. Major sectors include manufacturing, financial services, retail trade, and mining. Once estimates have been produced individually for all relevant sectors, they are combined to form a total estimate of calendar year liability. The calendar year estimate is converted to a fiscal year estimate, with adjustments made to account for refunds, audits, penalties, and credit reimbursements.

As shown in the adjacent figure, energy related sectors account for nearly half of total tax liability. The underlying volatility of the energy industry is a large contributor to the overall volatility of this tax source.



Corporation income tax revenues are quite volatile

from year to year, resulting in a revenue stream that is difficult to predict. The volatility can be attributed to many factors: sensitivity of corporation income to business cycles, industry composition in the state, reliance on a limited number of large taxpayers, and federal and state tax policy. For example, Montana law allows corporations to carry back current year losses for three years, and carry forward losses for

up to seven years. The carry back provision may result in magnifying a downturn to the extent that corporations file amended prior year tax returns that include current year losses, and are thereby owed a refund of taxes paid in those previous years.

Forecasting error is produced through three main channels: timing of data, in the inherent error of IHS forecast economic variables, and in the model itself as past collections are not predicted perfectly by selected IHS variables. Combined with the uncertainty involved in predicting audit and refund amounts, these sources of error can lead to revenues that may significantly deviate from forecast values and prior year collections.

While corporations' tax behavior introduces forecasting error that is difficult to predict, [research by the LFD](#) explores methods to minimize the errors associated with the IHS forecasts of underlying economic variables and compares the relative accuracy of various model types. The research suggests that using a sector-based modeling approach consistently performs better than models that used a single variable as a predictor. While corporation income tax will likely continue to be a volatile source, the methods utilized by this research should direct modeling choices that will minimize the error introduced by IHS forecast error.

### Assumptions

Each of the eleven sectors are listed below, followed by the five-year-average share of tax liability, a brief description of the sector, and the underlying economic variables used to develop the projection. The variables used to develop most of the projections are the average price of West Texas Intermediate oil price, Montana retail sales, and Montana median home prices.

- Manufacturing (27%)—The manufacturing industry in Montana is highly correlated with energy prices and is therefore a relatively variable with respect to its aggregate tax liability. This sector is modeled using IHS forecast prices of West Texas Intermediate Crude.
- Financial services (19%)—This sector includes banks, bank holding corporations, and companies involved in investment activities. Financial sector tax liability is modeled on median existing home prices in Montana as well as Montana wholesale employment.
- Wholesale and retail trade (17%)—This combined sector trends well with Montana retail sales and therefore uses retail sales to predict future sector revenues.
- Mining (7%)—The mining industry in Montana is heavily dependent on energy prices; it is modeled on the average price of West Texas Intermediate Crude.
- Professional and business services (6%)—The professional service sector comprises establishments that specialize in performing professional, scientific, and technical activities for others. The business service sector comprises establishments performing routine support activities for the day-to-day operations of other organizations. This sector is combined with the utility and social sectors and aggregate estimated is produced using an ARIMA time series.
- Transportation and warehousing (11%)—The transportation and warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Its tax liability is modeled on forecast West Texas Intermediate Crude prices and Montana's population.
- Information (5%)—The main components of this sector are the publishing industries, the motion picture and sound recording industries, the broadcasting industries, the telecommunications industries, and the information services industries. Its tax liability is modeled on 3-month commercial paper.

- Utilities (1%)—The utilities sector includes establishments engaged in the provision of electric power, natural gas, steam supply, water supply, and sewage removal. The tax liability of this sector is modeled on the average number of housing starts per year. This sector is combined with the professional and social sectors and aggregate estimated is produced using an arima time series.
- Agriculture (4%)—The tax liability of the agriculture sector is modeled on forecast Domestic Crude prices.
- Social and educational services (2%)—This is a broad grouping of educational and health services, and arts, entertainment and recreation. The tax liability is modeled on GDP. This sector is combined with the professional and utility sectors and aggregate estimated is produced using an ARIMA time series.
- Construction (2%)—Next to the utility sector, the construction industry is the smallest contributor to corporation tax liability, likely because most construction companies are organized as S-corps or limited liability companies. Its tax liability is modeled on the average West Texas Intermediate Crude price.

Calendar year corporation income tax liabilities are modeled by sectors as described above, and summed by year to produce a total calendar year estimate of tax liabilities. The calendar year estimates are converted to fiscal year using historical trends.

Adjustments

After the estimate for the fiscal year gross corporation tax liability is complete, several adjustments are required. The adjustments and the corresponding estimate process for each is described below.

- Refunds – Projected on a historical average ratio of current fiscal year liability.
- Audits, penalties & interest – Projected on a historical average ratio of prior fiscal year liability.

**Revenue Estimate Assumptions**

FY	Total Tax \$ Millions	GF Tax \$ Millions	Total FY Liability \$ Millions	Refunds \$ Millions	Audit, P&I Payments \$ Millions	RTIC Adjustment \$ Millions
A 2004	\$67.723	\$67.723	\$77.930	(\$24.381)	\$14.174	
A 2005	98.214	98.214	102.151	(14.533)	10.597	
A 2006	153.675	153.675	156.704	(13.859)	10.830	
A 2007	177.504	177.504	176.891	(26.200)	26.813	
A 2008	160.342	160.342	171.368	(27.900)	16.874	
A 2009	166.355	166.355	155.199	(19.881)	31.036	
A 2010	87.901	87.901	109.642	(37.121)	15.380	
A 2011	119.044	119.044	122.727	(29.800)	26.116	
A 2012	127.771	127.771	138.643	(38.757)	27.885	
A 2013	177.497	177.497	171.685	(10.999)	16.811	
A 2014	147.548	147.548	158.489	(21.707)	10.765	
A 2015	172.729	172.729	161.927	(17.973)	28.775	
A 2016	118.387	118.387	140.283	(31.391)	9.495	
F 2017	140.308	140.308	145.316	(31.391)	18.237	(\$4.808)
F 2018	134.346	134.346	153.265	(21.797)	18.891	(27.258)
F 2019	164.575	164.575	158.498	(22.990)	19.925	(2.496)

**Business and Personal Taxes**

**Corporation Income Tax**

CY	Agriculture \$ Millions	Mining \$ Millions	Utilities \$ Millions	Construction \$ Millions	Manufacture \$ Millions	Trade \$ Millions	Transport \$ Millions
A 2004	\$1.732	\$5.319	\$1.561	\$1.200	\$16.644	\$12.068	\$4.296
A 2005	2.446	14.612	4.471	2.403	27.443	18.113	9.746
A 2006	2.958	9.839	4.957	2.994	34.302	16.416	10.659
A 2007	3.614	12.350	6.618	2.872	45.862	18.853	10.469
A 2008	3.269	11.744	2.527	2.670	39.658	13.710	11.719
A 2009	3.320	13.050	2.434	2.634	24.502	17.541	6.845
A 2010	3.373	10.116	1.425	1.593	29.737	15.716	7.432
A 2011	4.394	16.177	0.717	2.102	38.345	20.111	10.052
A 2012	4.993	7.805	0.751	3.643	40.489	24.484	19.955
A 2013	5.759	3.840	0.973	2.246	35.990	25.559	20.219
A 2014	6.741	4.000	1.549	1.751	29.754	24.924	18.839
F 2015	6.250	4.586	1.083	3.067	19.973	23.586	17.377
F 2016	6.495	2.759	1.015	3.105	17.686	24.091	17.049
F 2017	6.372	5.421	1.074	3.071	20.857	24.833	18.255
F 2018	6.434	6.041	1.139	3.129	22.766	25.950	19.096
F 2019	6.403	5.599	1.172	3.211	25.543	27.139	20.163

CY	Information \$ Millions	Professional \$ Millions	Large Banks \$ Millions	Social \$ Millions	Unknown \$ Millions	Total CY Liability \$ Millions
A 2004	\$2.011	\$6.592	\$14.244	\$1.522	\$4.713	\$71.902
A 2005	3.778	8.453	25.177	2.005	5.209	123.857
A 2006	4.826	8.954	27.436	2.087	4.120	129.547
A 2007	3.826	7.659	27.006	2.657	2.507	144.292
A 2008	3.403	5.353	22.945	1.794	1.099	119.891
A 2009	1.944	7.213	17.195	1.850	0.171	98.699
A 2010	2.720	7.263	17.392	2.034	0.192	98.991
A 2011	4.618	6.641	18.824	2.181	0.003	124.165
A 2012	7.363	9.286	25.323	3.700	0.007	147.799
A 2013	9.538	8.142	27.335	3.239	0.026	142.867
A 2014	6.494	10.366	37.203	5.029	0.657	147.305
F 2015	4.379	8.340	34.324	3.237	0.230	126.431
F 2016	4.389	8.555	34.377	3.477	0.304	123.302
F 2017	4.401	8.938	33.555	3.736	0.397	130.912
F 2018	4.423	8.868	34.021	3.744	0.310	135.921
F 2019	4.450	9.013	34.604	3.845	0.337	141.481

**Revenue Projection**

