

Memorandum

To: Forest Lands Taxation Advisory Subcommittee

From: Bonnie Hamilton, Department of Revenue

Date: February 4, 2022

Subject: Capitalization Rate

What is a cap rate?

A capitalization rate is a composite rate used for converting property income into property value.

The Dictionary of Real Estate Appraisal 7th Edition defines capitalization rate as a ratio of one year's net operating income provided by an asset to the value of the asset; used to convert income into value in the application of the income capitalization approach.

There are a variety of methods used to develop an overall capitalization rate, depending on the available data. The department derives capitalization rate for commercial and industrial properties using comparable sales and income data and dividing the income by the sales price. Forest land sales and income data is not available.

History

Prior to 2009, the development of the capitalization rate for forest land valuation was set in statute. The long-term agricultural loan rate (discount rate) was added to the effective tax rate to determine the capitalization rate per zone. As shown in the formula: Capitalization Rate = Discount Rate + Effective Tax Rate. The IRS publishes the discount rates in their bulletins. The effective tax rate (ETR) expresses the relationship between the forestland appraised value and the forest land tax, $ETR = \text{Taxes} / \text{Assessed Value}$.

The following table shows the capitalization rate as calculated in the manner used prior to 2009.

Table 1: Capitalization rate calculation method used prior to 2009

Cycle	Zone	Ag loan rate (NWFCs- Spokane)	Plus	ETR	Capitalization Rate
2003-2008	1	8.18	Plus	0.23	8.41
	2	8.18	Plus	0.27	8.45
	3	8.18	Plus	0.28	8.46
	4	8.18	Plus	0.23	8.41
	5	8.18	Plus	0.22	8.40
2009-2014	statewide	6.11	Plus	0.17	6.28
2015-2020	statewide	5.55	Plus	0.15	5.70
2021-2026	statewide	4.66	Plus	0.17	4.83

The 2009 legislature passed HB 658 which removed this statutory development of the forest land capitalization rate and replaced it as follows. MCA 15-44-103. Legislative intent -- value of forest lands -- valuation zones. (6) The capitalization rate must be calculated for each year of the base period and is the average capitalization rate determined by the department after consultation with the forest lands taxation advisory committee, plus the effective tax rate. The capitalization rate must be adopted by rule. However, the capitalization rate for each year of the base period may not be less than 8%.

The net income of a property is divided by the capitalization rate to determine the property's value so as the capitalization rate goes up the property value decreases and vice versa. Table 2 shows examples of what happens to value as the capitalization rate changes.

Table 2: Valuation example with different capitalization rates (using 2021 value calculations)

prod (bfa)	Zone	Net Income	/	Capitalization Rate	equals	Property Value
100	1	\$15		7.50%		\$202
		\$15		7.75%		\$195
		\$15		8%		\$189
		\$15		8.25%		\$183
		\$15		8.50%		\$178
		\$15		9%		\$168
300	1	\$73		7.50%		\$977
		\$73		7.75%		\$945
		\$73		8%		\$916
		\$73		8.25%		\$888
		\$73		8.50%		\$862
		\$73		9%		\$814

Relationship with taxable value

Statute sets the taxable percentage for forest land at 0.34% for 2021, 0.31 for 2022, and back to 0.37% for years after 2022. MCA 15-6-143 (3). This percentage is applied to the property value to arrive at taxable value as seen below. The reasoning for the sliding taxable percentage is to mitigate the value phase-in. The department presented the analysis and recommendations for keeping the taxable value neutral for each of the six years in the 2021 appraisal at the November 2020 Revenue Interim meeting. The 2021 legislature amended the taxable percentage accordingly for the first two years of the 2021 appraisal cycle.

Table 3: Taxable Value comparisons with differing taxable percentages

Productivity	Property Value	Taxable Percentage	Taxable Value
100 bfa	\$189	0.37%	\$0.70
	\$189	0.34%	\$0.64
	\$189	0.31%	\$0.59
	\$189	1.35%	\$2.55
	\$189	2.16%	\$4.08
300 bfa	\$916	0.37%	\$3.39
	\$916	0.34%	\$3.11
	\$916	0.31%	\$2.84
	\$916	1.35%	\$12.37
	\$916	2.16%	\$19.79

Forest land classification

The committee has expressed concern that forest property taxation may force property owners to abandon their investment in forest land property. To properly discuss this concept, it is necessary to understand the process of land classification.

In Montana, forest land classification is not based on an application or proof of forest land management plan. The department’s first test for land classification is to determine if the land meets forest land requirements such as number of timber acres, productivity rating, crown coverage, etc.

If it does not meet the forest land classification requirements, the next test is to see if it meets the classification requirements of agricultural land. If the contiguous acres are greater than 160 acres, it could be classified as agricultural land. If the land is less than 160 acres, it must meet the requirements for agricultural production. This requires that the land be used in an agricultural manner and if the use is grazing, the land must meet the current carrying capacity determined by Montana State University. This rate is currently 23 animal unit months (aum) for the parcel. Table 5 shows a comparison of the number of grazing acres needed to meet the aum requirement. In most cases, the required acreage is above the acreage needed for “automatic” agricultural classification.

If it does not meet the agricultural land classification requirements, the next test is to see if it meets the size requirement, 20 to less than 160 acres, to meet the requirement to be classified as nonqualified agricultural land (NQ).

If it does not meet the requirements above, it is classified as tract land. The taxable value for grazing land may be preferable to forest land, as shown in Table 4, but the requirements to qualify for agricultural classification are not attainable by a large set of forest property owners. Agricultural classification is automatic for contiguous ownerships of 160 acres or more while owners with parcels less than 160 acres, must apply to receive agricultural classification. The number of unique owners grouped by these ownership sizes is shown in Table 6.

Table 4: Comparison of value per acre and taxable value (TV) per acre

Zone	avg forest value	forest taxable value @ 0.31%	avg grazing productivity	avg value as grazing	avg TV as grazing	NQ value	TV as NQ
1	\$769.89	\$2.39	0.061	\$14.91	\$0.32	\$55.35	\$8.37
2	\$624.00	\$1.93	0.066	\$16.24	\$0.35	\$55.35	\$8.37
3	\$429.46	\$1.33	0.070	\$17.25	\$0.37	\$55.35	\$8.37
4	\$51.72	\$0.16	0.151	\$37.02	\$0.80	\$55.35	\$8.37

Table 5: Number of forest acres to meet grazing requirement

Zone	Total aums	Avg aum/ac	Acres required
1	23.00	0.061	377
2	23.00	0.066	347
3	23.00	0.070	327
4	23.00	0.151	152

Table 6: Forest ownerships

forest ownerships	Total owners of forest land	160+ acres	<160 acres
		17,383	4,787
acres		6,873,266	1,084,611
avg ownership (in acres)		1,436	75

Note: Parcel size includes all land classifications not only forest land acres. An ownership may be included in both acreage sets if it contains parcels over and under the 160 acre threshold.

Please note that this discussion does not consider the implications of the forest land value phase-in for purposes of isolating the effect of the different variables.

Summary

An adjustment in the capitalization rate for forest land properties would be a simple method to adjust the forest land values but the department does not have data to justify an increase of this capitalization rate. The department does not have data to develop a capitalization rate in the same method used for other classes of property. If the department used the previous method of developing the forest land rate, the capitalization rate would be lower than the current 8%, resulting in higher property values.

Percentages to maintain taxable value neutrality were discussed in the Tax, Policy & Research document to the interim committee in November 2020. The rates adopted by the 2021 legislature are compared to the current agricultural and residential rates in Table 3.

While there is much concern about providing forest property owners with incentives to keep their land in forest classification, the current property classification structure is totally based on the land and ownership. It does not require the forest landowner to manage their land to produce a timber harvest.