

**COGENT COMMUNICATIONS HOLDINGS, INC., AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**5. Income taxes: (Continued)**

Our consolidated temporary differences comprising our net deferred tax assets are as follows (in thousands):

	December 31,	
	2019	2018
Deferred Tax Assets:		
Net operating loss carry-forwards	\$ 255,269	\$ 255,235
Tax credits	2,261	2,458
Equity-based compensation	4,116	3,322
Operating leases	32,289	—
Total gross deferred tax assets	293,935	261,015
Valuation allowance	(131,069)	(126,579)
	162,866	134,436
Deferred Tax Liabilities:		
Depreciation and amortization	34,884	29,769
Accrued liabilities and other	107,711	101,934
Right-of-use assets	29,670	—
Gross deferred tax liabilities	172,265	131,703
Net deferred tax (liabilities) assets	\$ (9,399)	\$ 2,733

At each balance sheet date, the Company assesses the likelihood that it will be able to realize its deferred tax assets. The Company considers all available positive and negative evidence in assessing the need for a valuation allowance. The Company maintains a full valuation allowance against certain of its deferred tax assets consisting primarily of net operating loss carryforwards related to its foreign operations in Canada, Europe, Asia, Latin America and Australia and net operating losses in the United States that are limited for use under Section 382 of the Internal Revenue Code.

As of December 31, 2019, the Company has combined net operating loss carry-forwards of \$994.0 million. This amount includes federal net operating loss carry-forwards in the United States of \$97.6 million, net operating loss carry-forwards related to its European, Mexican, Canadian and Asian operations of \$890.1 million, \$3.3 million, \$1.8 million and \$1.0 million, respectively. Section 382 of the Internal Revenue Code in the United States limits the utilization of net operating losses when ownership changes, as defined by that section, occur. The Company has performed an analysis of its Section 382 ownership changes and has determined that the utilization of certain of its net operating loss carryforwards in the United States is limited based on the annual Section 382 limitation and remaining carryforward period. Of the net operating losses available at December 31, 2019 in the United States \$38.4 million are limited for use under Section 382. Net operating loss carryforwards outside of the United States totaling \$896.4 million are not subject to limitations similar to Section 382. The net operating loss carryforwards in the United States will expire, if unused, between 2025 and 2036. The net operating loss carry-forwards related to the Company's Mexican, Asian and Canadian operations will expire if unused, between 2020 and 2029. The net operating loss carry-forwards related to the Company's European operations include \$744.6 million that do not expire and \$145.5 million that expire between 2020 and 2035.

Other than the \$2.3 million transition tax recorded in the year ended December 31, 2017 as a result of its foreign earnings the Company has not provided for United States deferred income taxes or foreign withholding taxes on its undistributed earnings for certain non-US subsidiaries earnings or cumulative translation adjustments because these earnings and adjustments are intended to be permanently reinvested in operations outside the United States. It is not practical to determine the amount of the unrecognized deferred tax liability on such undistributed earnings or cumulative translation adjustments.