BNSF RAILWAY COMPANY
Consolidated Financial Statements
for the period ended December 31, 2018

Consolidated Financial Statements

The Consolidated Financial Statements of BNSF Railway Company and subsidiary companies, together with the report of the Company's independent registered public accounting firm, are included as part of this document.

Independent Auditors' Report

To the Shareholder and Board of Directors of BNSF Railway Company

We have audited the accompanying consolidated financial statements of BNSF Railway Company and its subsidiaries (the "Company"), which comprise the Consolidated Balance Sheets as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of BNSF Railway Company and its subsidiaries as of December 31, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2018 in accordance with accounting principles generally accepted in the United States of America.

/s/ DELOITTE & TOUCHE LLP

Fort Worth, Texas
February 22, 2019

BNSF Railway Company and Subsidiaries

Consolidated Statements of Income

In millions

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Revenues	**$ 22,999**	$ 20,747	$ 19,278
Operating expenses:			
Compensation and benefits	**5,322**	4,968	4,757
Fuel	**3,346**	2,518	1,934
Depreciation and amortization	**2,306**	2,341	2,115
Purchased services	**2,168**	2,019	2,037
Equipment rents	**732**	784	766
Materials and other	**1,329**	875	1,072
Total operating expenses	**15,203**	13,505	12,681
Operating income	**7,796**	7,242	6,597
Interest expense	**51**	43	50
Interest income, related parties	**(643)**	(360)	(197)
Other (income) expense, net	**(70)**	(24)	(35)
Income before income taxes	**8,458**	7,583	6,779
Income tax expense (benefit)	**2,019**	(4,536)	2,519
Net income	**$ 6,439**	$ 12,119	$ 4,260

See accompanying Notes to Consolidated Financial Statements.

BNSF Railway Company and Subsidiaries

Consolidated Statements of Comprehensive Income

In millions

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Net income	$ 6,439	$ 12,119	$ 4,260
Other comprehensive income:			
Change in pension and retiree health and welfare benefits, net of taxes	(127)	112	72
Change in accumulated other comprehensive income (loss) of equity method investees	1	—	(1)
Other comprehensive (loss) income, net of tax	(126)	112	71
Total comprehensive income	$ 6,313	$ 12,231	$ 4,331

See accompanying Notes to Consolidated Financial Statements.

BNSF Railway Company and Subsidiaries

Consolidated Balance Sheets

In millions

	December 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	**$ 513**	$ 516
Accounts receivable, net	**1,784**	1,668
Materials and supplies	**793**	803
Other current assets	**297**	204
Total current assets	**3,387**	3,191
Property and equipment, net of accumulated depreciation of $9,981 and $8,611, respectively	**63,147**	62,281
Goodwill	**14,803**	14,803
Intangible assets, net	**361**	392
Other assets	**2,257**	2,431
Total assets	**$ 83,955**	$ 83,098
Liabilities and Stockholder's Equity		
Current liabilities:		
Accounts payable and other current liabilities	**$ 3,082**	$ 3,069
Long-term debt due within one year	**80**	90
Total current liabilities	**3,162**	3,159
Deferred income taxes	**13,875**	13,542
Long-term debt	**1,269**	1,355
Casualty and environmental liabilities	**486**	499
Intangible liabilities, net	**381**	471
Pension and retiree health and welfare liability	**267**	310
Other liabilities	**1,019**	1,104
Total liabilities	**20,459**	20,440
Commitments and contingencies (see Notes 12 and 13)		
Stockholder's equity:		
Common stock, $1 par value, 1,000 shares authorized; issued and outstanding and paid-in-capital	**42,920**	42,920
Retained earnings	**45,748**	39,337
Intercompany notes receivable	**(25,302)**	(19,830)
Accumulated other comprehensive income (loss)	**130**	231
Total stockholder's equity	**63,496**	62,658
Total liabilities and stockholder's equity	**$ 83,955**	$ 83,098

See accompanying Notes to Consolidated Financial Statements.

BNSF Railway Company and Subsidiaries

Consolidated Statements of Cash Flows

In millions

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Operating Activities			
Net income	**$ 6,439**	$ 12,119	$ 4,260
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**2,306**	2,341	2,115
Deferred income taxes	**369**	(6,480)	987
Long-term casualty and environmental liabilities, net	**(18)**	(85)	(35)
Other, net	**(159)**	(249)	63
Changes in current assets and liabilities:			
Accounts receivable, net	**(116)**	(237)	(201)
Materials and supplies	**10**	22	4
Other current assets	**(50)**	78	(129)
Accounts payable and other current liabilities	**(68)**	(282)	574
Net cash provided by operating activities	**8,713**	7,227	7,638
Investing Activities			
Capital expenditures excluding equipment	**(2,918)**	(2,864)	(3,225)
Acquisition of equipment	**(269)**	(397)	(614)
Purchases of investments and investments in time deposits	**(27)**	(13)	(8)
Proceeds from sales of investments and maturities of time deposits	**45**	34	27
Other, net	**21**	(243)	(174)
Net cash used for investing activities	**(3,148)**	(3,483)	(3,994)
Financing Activities			
Payments on long-term debt	**(96)**	(85)	(117)
Net increase in intercompany notes receivable classified as equity	**(5,472)**	(3,711)	(3,522)
Other, net	**—**	(2)	—
Net cash used for financing activities	**(5,568)**	(3,798)	(3,639)
Increase (decrease) in cash and cash equivalents	**(3)**	(54)	5
Cash and cash equivalents:			
Beginning of period	**516**	570	565
End of period	**$ 513**	$ 516	$ 570

Supplemental Cash Flow Information			
Interest paid, net of amounts capitalized	**$ 68**	$ 61	$ 60
Capital investments accrued but not yet paid	**$ 251**	$ 192	$ 305
Income taxes paid, net of refunds	**$ 1,602**	$ 2,087	$ 1,020
Non-cash asset financing	**$ 8**	$ —	$ —

See accompanying Notes to Consolidated Financial Statements.

BNSF Railway Company and Subsidiaries

Consolidated Statements of Changes in Stockholder's Equity

In millions

	Common Stock and Paid-in-Capital	Retained Earnings	Intercompany Notes Receivable	Accumulated Other Comprehensive (Loss) Income	Total Stockholder's Equity
Balance at December 31, 2015	$ 42,920	$ 22,958	$ (12,597)	$ 48	$ 53,329
Comprehensive income, net of tax	—	4,260	—	71	4,331
Intercompany notes receivable	—	—	(3,522)	—	(3,522)
Balance at December 31, 2016	42,920	27,218	(16,119)	119	54,138
Comprehensive income, net of tax	—	12,119	—	112	12,231
Intercompany notes receivable	—	—	(3,711)	—	(3,711)
Balance at December 31, 2017	42,920	39,337	(19,830)	231	62,658
Adoption of ASC Topic 606	—	(3)	—	—	(3)
Equity method investee adoption of ASU 2016-01[a]	—	1	—	(1)	—
Reclassification upon early adoption of ASU 2018-02	—	(26)	—	26	—
Comprehensive income (loss), net of tax	—	6,439	—	(126)	6,313
Intercompany notes receivable	—	—	(5,472)	—	(5,472)
Balance at December 31, 2018	**$ 42,920**	**$ 45,748**	**$ (25,302)**	**$ 130**	**$ 63,496**

[a] Accounting Standards Update No. 2016-01 Financial Instruments- Recognition and Measurement of Financial Assets and Financial Liabilities

See accompanying Notes to Consolidated Financial Statements.

BNSF Railway Company and Subsidiaries

Notes to Consolidated Financial Statements

1. The Company

BNSF Railway Company and its majority-owned subsidiaries (collectively, BNSF Railway or Company) is a wholly-owned subsidiary of Burlington Northern Santa Fe, LLC (BNSF). BNSF Railway operates one of the largest railroad networks in North America. BNSF Railway operates approximately 32,500 route miles of track (excluding multiple main tracks, yard tracks and sidings) in 28 states and also operates in three Canadian provinces. Through one operating transportation services segment, BNSF Railway transports a wide range of products and commodities including the transportation of Consumer Products, Industrial Products, Agricultural Products, and Coal, derived from manufacturing, agricultural and natural resource industries, which constituted 35 percent, 26 percent, 21 percent, and 18 percent, respectively, of total freight revenues for the year ended December 31, 2018.

On February 12, 2010, Berkshire Hathaway Inc., a Delaware corporation (Berkshire), acquired 100 percent of the outstanding shares of Burlington Northern Santa Fe Corporation common stock that it did not already own. The acquisition was completed through the merger (Merger) of a Berkshire wholly-owned merger subsidiary and Burlington Northern Santa Fe Corporation with the surviving entity renamed Burlington Northern Santa Fe, LLC. Berkshire's cost of acquiring BNSF was pushed-down to establish a new accounting basis for BNSF beginning as of February 13, 2010.

2. Significant Accounting Policies

Principles of Consolidation

The Consolidated Financial Statements include the accounts of BNSF Railway. All intercompany accounts and transactions have been eliminated. The Company evaluates its less than majority-owned investments for consolidation pursuant to authoritative accounting guidance related to the consolidation of variable interest entities (VIEs). The Company consolidates a VIE when it possesses both the power to direct the activities of the VIE that most significantly impact its economic performance and when the Company is either obligated to absorb the losses that could potentially be significant to the VIE or the Company holds the right to receive benefits from the VIE that could potentially be significant to the VIE.

Use of Estimates

The preparation of financial statements in accordance with generally accepted accounting principles in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods presented. These estimates and assumptions are periodically reviewed by management. Actual results could differ from those estimates.

Revenue Recognition

The Company's primary source of revenue is freight rail transportation services. The primary performance obligation for the Company is to move freight from a point of origin to a point of destination for its customers. The performance obligations are represented by bills of lading which create a series of distinct services that have a similar pattern of transfer to the customer. The revenues for each performance obligation are based on various factors including the product being shipped, the origin and destination pair, and contract incentives which are outlined in various private rate agreements, common carrier public tariffs, interline foreign road agreements and pricing quotes. The transaction price is generally a per car amount to transport cars from a certain origin to a certain destination.

The associated freight revenues are recognized over time as the service is performed because the customer simultaneously receives and consumes the benefits of the service. The Company recognizes revenue based on the proportion of the service completed as of the balance sheet date. Bills for freight transportation services are generally issued to customers and paid within thirty days or less. As a result, no significant contract assets exist and there are no significant financing components in the Company's revenue arrangements.

Customer incentives, which are primarily provided for shipping a specified cumulative volume or shipping to/from specific locations, are recorded as a reduction to revenue on a pro-rata basis based on actual or projected future customer shipments. A small portion of customer incentive agreements have a component where a different discount amount is provided for different levels of volumes, resulting in variable consideration. To determine transaction price in these cases, the Company estimates the amount of variable consideration at each reporting period utilizing the most likely amount based on historical trends as well as economic and other indicators. These incentives are ratably applied to all units using an estimate of how much volume the customer will ship under the customer incentive agreement. Both the variable consideration and the associated contract liabilities resulting from these types of customer incentives are immaterial.

Other revenues are primarily generated from accessorial services provided to customers which are primarily storage and demurrage and are recognized when the service is performed.

Accounts Receivable, Net

Accounts receivable, net includes accounts receivable reduced by an allowance for bill adjustments and uncollectible accounts. The allowance for bill adjustments and uncollectible accounts is based on historical experience as well as any known trends or uncertainties related to customer billing and account collectibility. Receivables are generally written off against allowances after all reasonable collection efforts are exhausted.

Cash and Cash Equivalents

All short-term investments with maturities of 90 days or less from the date of purchase are considered cash equivalents. Cash equivalents are stated at cost, which approximates market value because of the short maturity of these instruments.

Investments in Equity and Fixed Maturity Securities

Investments in fixed maturity securities and equity securities are classified at the acquisition date and the classification is re-evaluated at each balance sheet date. Investments are carried at fair value and gains or losses are recorded in income.

Materials and Supplies

Materials and supplies, which consist mainly of rail, ties and other items for construction and maintenance of property and equipment, as well as diesel fuel, are valued at the lower of average cost or market.

Goodwill and Other Intangible Assets and Liabilities

Goodwill is the excess of the cost of an acquired entity over the net of the amounts assigned to assets acquired and liabilities assumed.

Goodwill is tested for impairment annually or more frequently if events or circumstances indicate that the carrying amount may not be recoverable. The impairment test involves a two-step process. The first step is to estimate the fair value of the reporting unit using valuation models such as discounting projected future net cash flows and/or a multiple of earnings. If the carrying amount of a reporting unit, including goodwill, exceeds the estimated fair value, a second step is performed. Under the second step, the identifiable assets and liabilities, including identifiable intangible assets and liabilities, of the reporting unit are estimated at fair value as of the current testing date. The excess of the estimated fair value of the reporting unit over the estimated fair value of net assets establishes the implied value of goodwill. If the carrying amount of goodwill exceeds the implied value of goodwill, an impairment loss is recognized in an amount equal to that excess.

Other intangible assets and liabilities are amortized based on the estimated pattern in which the economic benefits are expected to be consumed or on a straight-line basis over their estimated economic lives. Other intangible assets and liabilities are reviewed for impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable or realized.

See Note 9 to the Consolidated Financial Statements for further information related to goodwill and other intangible assets and liabilities.

Property and Equipment, Net

BNSF Railway's railroad operations are highly capital intensive and its large base of homogeneous, network-type assets turns over on a continuous basis. Each year BNSF Railway develops a capital program for the replacement of assets and for the acquisition or construction of assets intended to enable BNSF Railway to increase capacity, enhance the efficiency of operations, gain strategic benefit or provide new service offerings to customers. Assets purchased or constructed throughout the year are capitalized if they meet applicable minimum units of property criteria.

Normal repairs and maintenance are charged to operating expense as incurred, while costs incurred that extend the useful life of an asset, improve the safety of BNSF Railway's operations, improve operating efficiency, or significantly increase asset values are capitalized.

Property and equipment are stated at cost and are depreciated and amortized on a straight-line basis over their estimated useful lives. The Company uses the group method of depreciation in which a single depreciation rate is applied to the gross investment in a particular class of property, despite differences in the service life or salvage value of individual property units within the same class. The Company conducts studies of depreciation rates and the required accumulated depreciation balance as required by the Surface Transportation Board (STB), which is generally every three years for equipment and every six years for track structure and other roadway property. These detailed studies form the basis for the Company's depreciation methods used in accordance with GAAP.

Depreciation studies take into account the following factors:

- Statistical analysis of historical patterns of use and retirements of each of BNSF Railway's asset classes;
- Evaluation of any expected changes in current operations and the outlook for continued use of the assets;
- Evaluation of technological advances and changes to maintenance practices; and
- Expected salvage to be received upon retirement.

Changes in the estimated service lives of the assets and their related depreciation rates are implemented prospectively. Currently, BNSF Railway is not aware of any specific factors that would cause significant changes in average useful service lives.

Under group depreciation, the historical cost net of salvage of depreciable property that is retired or replaced in the ordinary course of business is charged to accumulated depreciation and no gain or loss is recognized. This historical cost of certain assets is estimated as it is impracticable to track individual, homogeneous network-type assets. Historical costs are estimated by deflating current costs using the Producer Price Index (PPI) or a unit cost method. These methods closely correlate with the major costs of the items comprising the asset classes. Because of the number of estimates inherent in the depreciation and retirement processes and because it is impossible to precisely estimate each of these variables until a group of property is completely retired, BNSF Railway monitors the estimated service lives of its assets and the accumulated depreciation associated with each asset class to ensure its depreciation rates are appropriate.

For retirements of depreciable asset classes that do not occur in the normal course of business, a gain or loss may be recognized in operating expense if the retirement meets each of the following conditions: (i) is unusual, (ii) is significant in amount, and (iii) varies significantly from the retirement profile identified through BNSF Railway's depreciation studies. During the three fiscal years presented, no material gains or losses were recognized due to the retirement of depreciable assets. Gains or losses from disposals of land and non-rail property are recorded at the time of their occurrence.

When BNSF Railway purchases an asset, all costs necessary to make the asset ready for its intended use are capitalized. BNSF Railway self-constructs portions of its track structure and rebuilds certain classes of rolling stock. Expenditures that extend the useful life of an asset, improve the safety of BNSF Railway's operations, improve operating efficiency, or significantly increase asset values are capitalized. In addition to direct labor and material, certain indirect costs such as materials, small tools and project supervision are capitalized. Annually, a study is performed for the purpose of identifying indirect costs that clearly relate to capital projects. From those studies, an overhead application rate is developed. Indirect project costs are then allocated to capital projects using this overhead application rate.

BNSF Railway incurs certain direct labor, contract service and other costs associated with the development and installation of internal-use computer software. Costs for newly developed software or significant enhancements to existing software are typically capitalized. Research, preliminary project, operations, maintenance and training costs are charged to operating expense when the work is performed.

Assets held under capital leases are recorded at the lower of the net present value of the minimum lease payments or at the fair value of the leased assets at the inception of the lease. Amortization expense is computed using the straight-line method over the shorter of the estimated useful lives of the assets or the period of the related lease.

Leasehold improvements that meet capitalization criteria are capitalized and amortized on a straight-line basis over the lesser of their estimated useful lives or the remaining lease term.

Long-lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If impairment indicators are present and the estimated future undiscounted cash flows are less than the carrying value of the long-lived assets, the carrying value is reduced to the estimated fair value as measured by the discounted cash flows.

Planned Major Maintenance Activities

BNSF Railway utilizes the deferral method of accounting for leased locomotive overhauls, which includes the complete refurbishment of the engine and related components which extends the useful life of the locomotive. Accordingly, BNSF Railway has established an asset for overhauls that have been performed. This asset, which is included in property and equipment, net in the Consolidated Balance Sheets, is amortized to expense using the straight-line method until the next overhaul is performed, typically between eight and ten years.

Rail Grinding Costs

BNSF Railway uses the direct expense method of accounting for rail grinding costs, under which the Company expenses rail grinding costs as incurred.

Environmental Liabilities

Liabilities for environmental cleanup costs are initially recorded when BNSF Railway's liability for environmental cleanup is both probable and reasonably estimable. Subsequent adjustments to initial estimates are recorded as necessary based upon additional information developed in subsequent periods. Estimates for these liabilities are undiscounted.

Personal Injury Claims

Liabilities for personal injury claims are initially recorded when the expected loss is both probable and reasonably estimable. Subsequent adjustments to initial estimates are recorded as necessary based upon additional information developed in subsequent periods. Liabilities recorded for unasserted personal injury claims, including those related to asbestos, are based on information currently available. Estimates of liabilities for personal injury claims are undiscounted.

Income Taxes

Deferred tax assets and liabilities are measured using the tax rates that apply to taxable income in the period in which the deferred tax asset or liability is expected to be realized or paid. Changes in the Company's estimates regarding the statutory tax rate to be applied to the reversal of deferred tax assets and liabilities could materially affect the effective tax rate. Valuation allowances are established to reduce deferred tax assets if it is more likely than not that some or all of the deferred tax asset will not be realized. BNSF Railway has not recorded a valuation allowance, as it believes that the deferred tax assets will be fully realized in the future. Investment tax credits are accounted for using the flow-through method.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

Employment Benefit Plans

The Company estimates liabilities and expenses for pension and retiree health and welfare plans. Estimated amounts are based on historical information, current information and estimates regarding future events and circumstances. Significant assumptions used in the valuation of pension and/or retiree health and welfare liabilities include the expected return on plan assets, discount rate, rate of increase in compensation levels and the health care cost trend rate.

Fair Value Measurements

As defined under authoritative accounting guidance, fair value is the price that would be received to sell an asset or paid to transfer a liability between market participants in the principal market or in the most advantageous market when no principal market exists. Adjustments to transaction prices or quoted market prices may be required in illiquid or disorderly markets in order to estimate fair value. Different valuation techniques may be appropriate under the circumstances to determine the value that would be received to sell an asset or paid to transfer a liability in an orderly transaction. Market participants are assumed to be independent, knowledgeable, able and willing to transact an exchange and not under duress. Nonperformance or credit risk is considered in determining the fair value of liabilities. Considerable judgment may be required in interpreting market data used to develop the estimates of fair value. Accordingly, estimates of fair value presented herein are not necessarily indicative of the amounts that could be realized in a current or future market exchange.

The authoritative accounting guidance specifies a three-level hierarchy of valuation inputs which was established to increase consistency, clarity and comparability in fair value measurements and related disclosures.

- Level 1–Quoted prices for identical assets or liabilities in active markets that the Company has the ability to access at the measurement date.
- Level 2–Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; and model-derived valuations in which all significant inputs are observable market data.
- Level 3–Valuations derived from valuation techniques in which one or more significant inputs are unobservable.

3. Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2016-02 (ASU 2016-02), Leases (Topic 842). The guidance in ASU 2016-02 supersedes the lease recognition requirements in ASC Topic 840, Leases (FAS 13). ASU 2016-02 requires an entity to recognize assets and liabilities arising from a lease for both financing and operating leases, along with additional qualitative and quantitative disclosures. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. This new standard will require the present value of these leases to be recorded in the Consolidated Balance Sheets as a right of use asset and lease liability. The Company adopted the standard as of January 1, 2019, and the resulting increase in assets and liabilities is approximately $2.3 billion.

In March 2017, the FASB issued Accounting Standards Update No. 2017-07 (ASU 2017-07), Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. ASU 2017-07 requires an entity to present the service cost component of net benefit cost in the same line item as other current employee compensation costs (including being capitalized, if appropriate, as part of an asset). The other components of net benefit cost are presented below income from operations. The Company adopted the standard as of January 1, 2018. Other components of net benefit costs previously recorded in compensation and benefits expense were reclassified to other income. See Note 14 to the Consolidated Financial Statements. The retrospective impact of the adoption is shown in the table below (in millions):

	Year ended December 31, 2017		
	As Previously Reported	**Adjustments**	**As Revised**
Operating expenses	$ 13,451	$ 54	$ 13,505
Operating income	$ 7,296	$ (54)	$ 7,242
Other (income) expense, net	$ 30	$ (54)	$ (24)

	Year ended December 31, 2016		
	As Previously Reported	**Adjustments**	**As Revised**
Operating expenses	$ 12,641	$ 40	$ 12,681
Operating income	$ 6,637	$ (40)	$ 6,597
Other (income) expense, net	$ 5	$ (40)	$ (35)

In February 2018, the FASB issued Accounting Standards Update No. 2018-02 (ASU 2018-02), Income Statement - Reporting Comprehensive Income (Topic 220). The guidance in ASU 2018-02 allows an entity to elect to reclassify the stranded tax effects related to the Tax Cuts and Jobs Act of 2017 from accumulated other comprehensive income into retained earnings. ASU 2018-02 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company early adopted the guidance in ASU 2018-02 during the first quarter of 2018, and elected to reclassify $26 million of tax from accumulated other comprehensive income to retained earnings. See the Consolidated Statements of Changes in Stockholder's Equity.

In August 2018, the FASB issued Accounting Standards Update No. 2018-14 (ASU 2018-14), Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans. The amendments in ASU 2018-14 modify the disclosure requirements for employers that sponsor defined benefit pension and other postretirement plans. ASU 2018-14 is effective for the Company for the fiscal year ending after December 15, 2020, with early adoption permitted. The Company is currently evaluating the effect this standard will have on its Consolidated Financial Statement disclosures.

In August 2018, the FASB issued Accounting Standards Update No. 2018-15 (ASU 2018-15), Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The guidance requires an entity in such an arrangement to capitalize costs for certain implementation activities in the application development stage, expense the capitalized implementation costs over the term of the hosting arrangement, and present the expense with the associated hosting fees in the Consolidated Statements of Income. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is currently evaluating the effect this standard will have on its Consolidated Financial Statements.

4. Revenue from Contracts with Customers

On January 1, 2018, the Company adopted ASC Topic 606 (new revenue guidance) using the modified retrospective transition method and the practical expedient for contracts not completed as of the date of adoption. The Company recorded the cumulative effect of adopting ASC Topic 606 as a $3 million net reduction to member's equity as of January 1, 2018, primarily due to the timing impacts of variable consideration for certain customer incentives. Results for reporting periods beginning after January 1, 2018 are presented under ASC Topic 606, while prior period amounts were not adjusted and continue to be reported under the accounting standards in effect for the prior period. The impact of adoption to our Consolidated Statements of Income, Balance Sheets, and Statements of Cash Flows for the current year is immaterial as reflected in the Consolidated Statements of Changes in Stockholder's Equity. Therefore, financial statements showing 2018 reported under previous guidance are not presented.

In accordance with ASC Topic 606, the Company disaggregates revenue from contracts with customers based on the characteristics of the services being provided and the types of products being transported and other revenues (in millions):

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Consumer Products	**$ 7,902**	$ 7,111	$ 6,534
Industrial Products	**5,967**	5,133	4,764
Agricultural Products	**4,697**	4,316	4,240
Coal	**4,012**	3,846	3,383
Total freight revenues	**22,578**	20,406	18,921
Accessorial and other	**421**	341	357
Total operating revenues	**$ 22,999**	$ 20,747	$ 19,278

Contract assets and liabilities are immaterial. Receivables from contracts with customers is a component of accounts receivable, net on the Consolidated Balance Sheets. At both December 31, 2018 and January 1, 2018, $1.1 billion represents net receivables from contracts with customers.

Remaining performance obligations primarily consist of in-transit freight revenues, which will be recognized in the next reporting period. At December 31, 2018 and January 1, 2018, remaining performance obligations were $234 million and $190 million, respectively.

5. Income Taxes

Income tax expense was as follows (in millions):

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Current:			
Federal	**$ 1,361**	$ 1,727	$ 1,360
State	**289**	203	172
Total current	**1,650**	1,930	1,532
Deferred:			
Federal	**365**	(6,594)	892
State	**4**	128	95
Total deferred	**369**	(6,466)	987
Total	**$ 2,019**	$ (4,536)	$ 2,519

Reconciliation of the U.S. federal statutory income tax rate to the effective tax rate was as follows:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
U.S. Federal statutory income tax rate	**21.0%**	35.0 %	35.0%
State income taxes, net of federal tax benefit	**2.7**	2.8	2.6
Tax law change	**—**	(97.2)	—
Other, net	**0.2**	(0.4)	(0.4)
Effective tax rate	**23.9%**	(59.8)%	37.2%

The components of deferred tax assets and liabilities were as follows (in millions):

	December 31, 2018	December 31, 2017
Deferred tax liabilities:		
Property and equipment	**$ (13,935)**	$ (13,667)
Other	**(349)**	(391)
Total deferred tax liabilities	**(14,284)**	(14,058)
Deferred tax assets:		
Compensation and benefits	**162**	111
Casualty and environmental	**158**	196
Intangible assets and liabilities	**15**	30
Pension and retiree health and welfare benefits	**16**	16
Other	**58**	163
Total deferred tax assets	**409**	516
Net deferred tax liability	**$ (13,875)**	$ (13,542)

BNSF Railway and BNSF are included in the consolidated U.S. federal income tax return of Berkshire. In accordance with the income tax allocation agreement between BNSF and BNSF Railway, BNSF Railway makes payments to or receives refunds from BNSF based on its separate consolidated tax liabilities.

All U.S. federal income tax returns of BNSF Railway are closed for audit through the tax period ended December 31, 2011. BNSF Railway is currently under examination for the years 2012 and 2013 through Berkshire's consolidated U.S. federal income tax return.

BNSF Railway and its subsidiaries have various state income tax returns in the process of examination, administrative appeal or litigation. State income tax returns are generally subject to examination for a period of three to five years after filing of the respective return. The state impact of any federal changes remains subject to examination by various states for a period of up to one year after formal notification to the states.

Tax Reform

As a result of the Tax Act signed into law on December 22, 2017, the provision for income taxes for the fourth quarter of 2017 was adjusted to reflect the revaluation of BNSF Railway's deferred tax liability by $7.4 billion as a result of the reduction of the federal income tax rate from 35 percent to 21 percent effective January 1, 2018. The effective tax rate for 2017 was negative 59.8 percent. Without the decrease to income tax expense arising from the Tax Act, the effective tax rate for 2017 would have been positive 37.4 percent.

Uncertain Tax Positions

The amount of unrecognized tax benefits for the years ended December 31, 2018, 2017 and 2016, was $50 million, $57 million, and $62 million, respectively. The amount of unrecognized tax benefits at December 31, 2018 that would affect the Company's effective tax rate if recognized was $34 million, computed at the federal income tax rate expected to be applicable in the taxable period in which the amount may be incurred by the Company. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Beginning balance	**$ 57**	$ 62	$ 69
Additions for tax positions related to current year	**2**	7	4
Additions (reductions) for tax positions taken in prior years	**5**	(1)	(1)
Additions (reductions) for tax positions as a result of:			
Settlements	**—**	—	1
Lapse of statute of limitations	**(14)**	(11)	(11)
Ending balance	**$ 50**	$ 57	$ 62

It is expected that the amount of unrecognized tax benefits will change in the next twelve months; however, BNSF Railway does not expect the change to have a significant impact on the results of operations, the financial position or the cash flows of the Company.

The Company recognizes interest accrued related to unrecognized tax benefits in interest expense and penalties in income tax expense in the Consolidated Statements of Income. The Company had recorded a liability of approximately $7 million and $6 million for interest and penalties for the years ended December 31, 2018 and 2017, respectively.

6. Accounts Receivable, Net

Accounts receivable, net consists of freight and other receivables, reduced by an allowance for bill adjustments and uncollectible accounts, based upon expected collectibility. At December 31, 2018 and 2017, $85 million and $86 million, respectively, of such allowances had been recorded.

At December 31, 2018 and 2017, $60 million and $80 million, respectively, of accounts receivable were greater than 90 days old.

7. Investments

BNSF Railway holds investments which are included in other assets on the Consolidated Balance Sheets. The following table summarizes the fair value of investments held as of December 31, 2018 and December 31, 2017 (in millions):

	December 31, 2018	December 31, 2017
Debt securities	**$ 36**	$ 43
Equity securities	**37**	54
Total	**$ 73**	$ 97

The fair value measurements of BNSF Railway's debt securities are based on Level 2 inputs and equity securities are based on Level 1 inputs, using a market approach. Gains and losses recognized in other (income) expense, net for the Company for the years ended December 31, 2018, 2017, and 2016 were not material.

8. Property and Equipment, Net

Property and equipment, net (in millions), and the corresponding ranges of estimated useful lives were as follows:

	December 31, 2018	December 31, 2017	2018 Range of Estimated Useful Life
Land for transportation purposes	**$ 6,216**	$ 6,086	—
Track structure	**24,214**	23,217	15 – 50 years
Other roadway	**29,077**	28,103	9 – 100 years
Locomotives	**8,660**	8,528	8 – 36 years
Freight cars and other equipment	**3,100**	2,940	8 – 41 years
Computer hardware, software and other	**1,197**	1,029	6 – 15 years
Construction in progress	**664**	989	—
Total cost	**73,128**	70,892	
Less accumulated depreciation and amortization	**(9,981)**	(8,611)	
Property and equipment, net	**$ 63,147**	$ 62,281	

The Consolidated Balance Sheets at December 31, 2018 and 2017, included $479 million, net of $282 million of amortization, and $687 million, net of $382 million of amortization, respectively, for property and equipment under capital leases, primarily for rolling stock.

The Company capitalized $24 million, $22 million and $26 million of interest for the years ended December 31, 2018, 2017 and 2016, respectively.

9. Goodwill and Other Intangible Assets and Liabilities

During the years ended December 31, 2018, 2017 and 2016, no impairment losses related to goodwill were incurred. As of December 31, 2018 and 2017, there were no accumulated impairment losses related to goodwill. For both the years ended December 31, 2018 and 2017, the carrying values were $14.8 billion and no additional goodwill was recognized.

Intangible assets and liabilities were as follows (in millions):

	As of December 31, 2018		As of December 31, 2017	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Intangible assets	**$ 637**	**$ 276**	$ 637	$ 245
Intangible liabilities	**$ 1,403**	**$ 1,022**	$ 1,403	$ 932

As of December 31, 2018 and 2017, intangible assets primarily consisted of franchise and customer assets. Intangible liabilities primarily consisted of customer and shortline contracts which were in an unfavorable position at the date of Merger.

Amortizable intangible assets and liabilities are amortized based on the estimated pattern in which the economic benefits are expected to be consumed or on a straight-line basis over their estimated economic lives.

Amortization of intangible assets and liabilities was as follows (in millions):

	December 31, 2018	December 31, 2017	December 31, 2016
Amortization of intangible assets	**$ 31**	$ 31	$ 31
Amortization of intangible liabilities	**$ 90**	$ 96	$ 100

Amortization of intangible assets and liabilities for the next five years is expected to approximate the following (in millions):

	2019	2020	2021	2022	2023
Amortization of intangible assets	$ 31	$ 31	$ 31	$ 31	$ 31
Amortization of intangible liabilities	$ 27	$ 26	$ 24	$ 23	$ 21

10. Other Assets

In July 2010, the Company entered into a low-income housing partnership (the Partnership) as the limited partner, holding a 99.9 percent interest in the Partnership. The Partnership is a VIE, with the purpose of developing and operating low-income housing rental properties. Recovery of the Company's investment is accomplished through the utilization of low-income housing tax credits and the tax benefits of Partnership losses. The general partner, who holds a 0.1 percent interest in the Partnership, is an unrelated third party and is responsible for controlling and managing the business and financial operation of the Partnership. As the Company does not have the power to direct the activities that most significantly impact the Partnership's economic performance, the Company is not the primary beneficiary and therefore, does not consolidate the Partnership. The Company does not provide financial support to the Partnership that it was not previously contractually obligated to provide.

The Company has accounted for its investment in the Partnership using the effective yield method. The risk of loss of the Company's investment in the Partnership is considered low as an affiliate of the general partner has provided certain guarantees of tax credits and minimum annual returns. For the years ended December 31, 2018, 2017, and 2016, the Company recognized a reduction to income tax expense of $20 million, $8 million, and $39 million, respectively. The Company's maximum exposure to loss related to the Partnership is the unamortized investment balance. The following table provides information related to this Partnership (in millions):

	Year Ended December 31, 2018	Year Ended December 31, 2017
Unamortized investment balance classified as other assets	**$ 51**	$ 118
Maximum exposure to loss	**$ 51**	$ 118

Included within other assets are capitalized right-to-use fixed assets of $1.1 billion and $958 million, and related accumulated amortization of $310 million and $287 million, at December 31, 2018 and 2017, respectively.

11. Accounts Payable and Other Current Liabilities

Accounts payable and other current liabilities consisted of the following (in millions):

	December 31, 2018	December 31, 2017
Compensation and benefits payable	**$ 910**	$ 855
Property and income tax liabilities	**563**	552
Customer incentives	**231**	201
Capital expenditure estimated liabilities	**188**	167
Accounts payable	**180**	319
Casualty and environmental liabilities	**120**	125
Rents and leases	**117**	109
Other	**773**	741
Total	**$ 3,082**	$ 3,069

12. Debt

Debt outstanding was as follows (in millions):

	December 31, 2018 [a]			December 31, 2017 [a]		
Notes and debentures, due 2022	**$**	**200**	**8.8%**	$	200	8.8%
Equipment obligations, due 2019 to 2028		**470**	**3.6**		493	3.6
Capitalized lease obligations, due 2019 to 2029		**419**	**6.1**		466	6.1
Mortgage bonds, due 2020 to 2047		**81**	**4.5**		81	4.5
Financing obligations, due 2019 to 2029		**195**	**6.1**		211	6.3
Unamortized fair value adjustment under acquisition method accounting, discount, debt issuance costs, and other, net		**(16)**			(6)	
Total		**1,349**			1,445	
Less current portion of long-term debt		**(80)**	**5.3%**		(90)	5.5%
Long-term debt	**$**	**1,269**		$	1,355	

[a] Amounts represent debt outstanding and weighted average effective interest rates for 2018 and 2017, respectively. Maturities are as of December 31, 2018.

As of December 31, 2018, certain BNSF Railway properties and other assets were subject to liens securing $81 million of mortgage debt. Certain locomotives and rolling stock of BNSF Railway were subject to equipment obligations and capital leases.

The fair value of BNSF Railway's debt is primarily based on market value price models using observable market-based data for the same or similar issues, or on the estimated rates that would be offered to BNSF Railway for debt of the same remaining maturities (Level 2 inputs). Capital leases have been excluded from the calculation of fair value for both 2018 and 2017.

The following table provides fair value information for the Company's debt obligations including principal cash flows, related weighted average interest rates by contractual maturity dates and fair value. The Company had no outstanding variable rate debt at December 31, 2018.

	December 31, 2018								
	Maturity Date								
	2019	**2020**	**2021**	**2022**	**2023**	**Thereafter**	**Total Including Capital Leases**	**Total Excluding Capital Leases[a]**	**Fair Value Excluding Capital Leases**
Fixed-rate debt (in millions)	$80	$122	$218	$333	$53	$543	$1,349	$930	$983
Average interest rate	5.3%	5.8%	6.1%	7.8%	4.9%	4.0%	5.5%		

[a] Amount also excludes unamortized fair value adjustment under acquisition method accounting related to capital leases.

As of December 31, 2017, the fair value of fixed-rate debt excluding capital leases was $1.1 billion.

Capital Leases

There were no additions to capital leases in 2018. In 2017 and 2016, additions to capital leases were not material.

Guarantees

As of December 31, 2018, BNSF Railway has not been called upon to perform under the guarantees specifically disclosed in this footnote and does not anticipate a significant performance risk in the foreseeable future.

Debt and other obligations of non-consolidated entities guaranteed by the Company as of December 31, 2018, were as follows (dollars in millions):

	Guarantees					
	BNSF Railway Ownership Percentage	Principal Amount Guaranteed	Maximum Future Payments	Maximum Recourse Amount [a]	Remaining Term (in years)	Capitalized Obligations
Kinder Morgan Energy Partners, L.P.	0.5%	$ 190	$ 190	$ —	Termination of Ownership	$ 2 [b]
Chevron Phillips Chemical Company LP	—%	N/A [d]	N/A [d]	N/A [d]	9	$ 18 [c]

[a] Reflects the maximum amount the Company could recover from a third party other than the counterparty.
[b] Reflects capitalized obligations that are recorded on the Company's Consolidated Balance Sheets.
[c] Reflects the asset and corresponding liability for the fair value of these guarantees required by authoritative accounting guidance related to guarantees.
[d] There is no cap to the liability that can be sought from BNSF Railway for BNSF Railway's negligence or the negligence of the indemnified party. However, BNSF Railway could receive reimbursement from certain insurance policies if the liability exceeds a certain amount.

Kinder Morgan Energy Partners, L.P.

Santa Fe Pacific Pipelines, Inc., an indirect, wholly-owned subsidiary of BNSF Railway, has a guarantee in connection with its remaining special limited partnership interest in Santa Fe Pacific Pipeline Partners, L.P. (SFPP), a subsidiary of Kinder Morgan Energy Partners, L.P., to be paid only upon default by the partnership. All obligations with respect to the guarantee will cease upon termination of ownership rights, which would occur upon a put notice issued by BNSF Railway or the exercise of the call rights by the general partners of SFPP.

Chevron Phillips Chemical Company LP

BNSF Railway has an indemnity agreement with Chevron Phillips Chemical Company LP (Chevron Phillips), granting certain rights of indemnity from BNSF Railway, in order to facilitate access to a storage facility. Under certain circumstances, payment under this obligation may be required in the event Chevron Phillips were to incur certain liabilities or other incremental costs resulting from trackage access.

Indemnities

In the ordinary course of business, BNSF Railway enters into agreements with third parties that include indemnification clauses. The Company believes that these clauses are generally customary for the types of agreements in which they are included. At times, these clauses may involve indemnification for the acts of the Company, its employees and agents, indemnification for another party's acts, indemnification for future events, indemnification based upon a certain standard of performance, indemnification for liabilities arising out of the Company's use of leased equipment or other property, or other types of indemnification. Despite the uncertainty whether events which would trigger the indemnification obligations would ever occur, the Company does not believe that these indemnity agreements will have a material adverse effect on the Company's results of operations, financial position or liquidity. Additionally, the Company believes that, due to lack of historical payment experience, the fair value of indemnities cannot be estimated with any amount of certainty and that the fair value of any such amount would be immaterial to the Consolidated Financial Statements. Unless separately disclosed above, no fair value liability related to indemnities has been recorded in the Consolidated Financial Statements.

Variable Interest Entities - Leases

BNSF Railway has entered into various lease transactions in which the structure of the lease contains VIEs. These leases are primarily for equipment. These VIEs were created solely for the lease transactions and have no other activities, assets or liabilities outside of the lease transactions. In some of the arrangements, BNSF Railway has the option to purchase some or all of the leased assets at a fixed-price, thereby creating variable interests for BNSF Railway in the VIEs. The future minimum lease payments associated with the VIE leases were $1.5 billion as of December 31, 2018. The future minimum lease payments are included in future operating lease payments disclosed in Note 13 to the Consolidated Financial Statements.

In the event the leased asset is destroyed, BNSF Railway is generally obligated to either replace the asset or pay a fixed loss amount. The inclusion of the fixed loss amount is a standard clause within the lease arrangements. Historically, BNSF Railway has not incurred significant losses related to this clause. As such, it is not anticipated that the maximum exposure to loss would materially differ from the future minimum lease payments.

BNSF Railway does not provide financial support to the VIEs that it was not previously contractually obligated to provide.

BNSF Railway maintains and operates the leased assets based on contractual obligations within the lease arrangements, which set specific guidelines consistent within the industry. As such, BNSF Railway has no control over activities that could materially impact the fair value of the leased assets. BNSF Railway does not hold the power to direct the activities of the VIEs and therefore does not control the ongoing activities that have a significant impact on the economic performance of the VIEs. Additionally, BNSF Railway does not have the obligation to absorb losses of the VIEs or the right to receive benefits of the VIEs that could potentially be significant to the VIEs. Depending on market conditions, the fixed-price purchase options could potentially provide benefit to the Company; however, any benefits potentially received from a fixed-price purchase option are generally expected to be minimal. Based on these factors, BNSF Railway is not the primary beneficiary of the VIEs. As BNSF Railway is not the primary beneficiary and the majority of the VIE leases are operating leases, the assets and liabilities related to the VIEs recorded in the Company's Consolidated Balance Sheets are immaterial.

13. Commitments and Contingencies

Lease Commitments

BNSF Railway has substantial lease commitments for locomotives, freight cars, office buildings, operating facilities and other property, and many of these leases provide the option to purchase the leased item at fair market value at the end of the lease. However, some provide fixed price purchase options. Future minimum lease payments as of December 31, 2018, are summarized as follows (in millions):

December 31,	**Capital Leases**	**Operating Leases**[a]
2019	$ 72	$ 396
2020	69	492
2021	200	417
2022	35	325
2023	28	287
Thereafter	101	781
Total	505	$ 2,698
Less amount representing interest	(86)	
Present value of minimum lease payments	$ 419	

[a] Excludes leases having non-cancelable lease terms of less than one year and per diem leases. Minimum lease payments have not been reduced by minimum sublease rentals of $131 million due under future non-cancelable subleases.

Lease rental expense for all operating leases, excluding per diem leases, was $549 million, $581 million and $595 million for the years ended December 31, 2018, 2017 and 2016, respectively. When rental payments are not made on a straight-line basis, the Company recognizes rental expense on a straight-line basis over the lease term. Contingent rentals and sublease rental income were not significant for the years ended December 31, 2018, 2017 and 2016.

Other Commitments

In the normal course of business, the Company enters into long-term contractual requirements for future goods and services needed for the operations of the business. Such commitments are not in excess of expected requirements and are not reasonably likely to result in performance penalties or payments that would have a material adverse effect on the Company's liquidity.

Personal Injury and Environmental Costs

Personal Injury

BNSF Railway's personal injury liability includes the cost of claims for employee work-related injuries and third-party injuries (collectively, other personal injury) and asbestos claims. Personal injury claims by BNSF Railway employees are subject to the provisions of the Federal Employers' Liability Act (FELA) rather than state workers' compensation laws. FELA's system of requiring the finding of fault, coupled with unscheduled awards and reliance on the jury system, can contribute to increased expenses. Other proceedings include claims by non-employees for punitive as well as compensatory damages, and from time to time may include proceedings that have been certified as or purport to be class actions. The variability present in settling these claims, including non-employee personal injury and matters in which punitive damages are alleged, could result in increased expenses in future years. BNSF Railway has implemented a number of safety programs designed to reduce the number of personal injuries as well as the associated claims and personal injury expense.

BNSF Railway records an undiscounted liability for personal injury claims when the expected loss is both probable and reasonably estimable. The liability and ultimate expense projections are estimated using standard actuarial methodologies. Liabilities recorded for unasserted personal injury claims are based on information currently available. Due to the inherent uncertainty involved in projecting future events such as the number of claims filed each year, developments in judicial and legislative standards and the average costs to settle projected claims, actual costs may differ from amounts recorded. BNSF Railway has obtained insurance coverage for certain claims, as discussed under the heading "BNSF Insurance Company." Expense accruals and any required adjustments are classified as materials and other in the Consolidated Statements of Income.

Other Personal Injury

BNSF Railway estimates its personal injury liability claims and expense quarterly based on the covered population, activity levels and trends in frequency and the costs of covered injuries. Estimates include unasserted claims except for certain repetitive stress and other occupational trauma claims that allegedly result from prolonged repeated events or exposure. Such claims are estimated on an as-reported basis because the Company cannot estimate the range of reasonably possible loss due to other non-work related contributing causes of such injuries and the fact that continued exposure is required for the potential injury to manifest itself as a claim. BNSF Railway has not experienced any significant adverse trends related to these types of claims in recent years.

Key elements of the actuarial assessment include:

- Size and demographics (employee age and craft) of the workforce.
- Activity levels (manhours by employee craft and carloadings).
- Expected claim frequency rates by type of claim (employee FELA or third-party liability) based on historical claim frequency trends.
- Expected dismissal rates by type of claim based on historical dismissal rates.
- Expected average paid amounts by type of claim for open and incurred but not reported claims that eventually close with payment.

From these assumptions, BNSF Railway estimates the number of open claims by accident year that will likely require payment by the Company. The projected number of open claims by accident year that will require payment is multiplied by the expected average cost per claim by accident year and type to determine BNSF Railway's estimated liability for all asserted claims. Additionally, BNSF Railway estimates the number of its incurred but not reported claims that will likely result in payment based upon historical emergence patterns by type of claim. The estimated number of projected claims by accident year requiring payment is multiplied by the expected average cost per claim by accident year and type to determine BNSF Railway's estimated liability for incurred but not reported claims.

BNSF Railway monitors quarterly actual experience against the number of forecasted claims to be received, the forecasted number of claims closing with payment and expected claim payments. Adjustments to the Company's estimates are recorded quarterly as necessary or more frequently as new events or changes in estimates develop.

Asbestos

The Company is also party to asbestos claims by employees and non-employees who may have been exposed to asbestos. Based on BNSF Railway's estimate of the potentially exposed employees and related mortality assumptions, it is anticipated that unasserted asbestos claims will continue to be filed through the year 2050. The Company recorded an amount for the full estimated filing period through 2050 because it had a relatively finite exposed population.

BNSF Railway assesses its unasserted asbestos liability exposure on an annual basis during the third quarter. BNSF Railway determines its asbestos liability by estimating its exposed population, the number of claims likely to be filed, the number of claims that will likely require payment and the estimated cost per claim. Estimated filing and dismissal rates and average cost per claim are determined utilizing recent claim data and trends.

During the third quarters of 2018, 2017 and 2016, the Company analyzed recent filing and payment trends to ensure the assumptions used by BNSF Railway to estimate its future asbestos liability were reasonable. In 2018, management determined that the liability remained appropriate, and no change was recorded. In 2017 management recorded a decrease to the liability of $29 million. No adjustment was recorded in 2016. The Company plans to update its study again in the third quarter of 2019.

Throughout the year, BNSF Railway monitors actual experience against the number of forecasted claims and expected claim payments and will record adjustments to the Company's estimates as necessary.

The following table summarizes the activity in the Company's accrued obligations for personal injury matters (in millions):

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Beginning balance	**$ 307**	$ 367	$ 375
Accruals / changes in estimates	**76**	(1)	80
Payments	**(75)**	(59)	(88)
Ending balance	**$ 308**	$ 307	$ 367

At December 31, 2018 and 2017, $80 million and $85 million was included in current liabilities, respectively. Defense and processing costs, which are recorded on an as-reported basis, were not included in the recorded liability. The Company is primarily self-insured for personal injury claims.

Because of the uncertainty surrounding the ultimate outcome of personal injury claims, it is reasonably possible that future costs to settle personal injury claims may range from approximately $270 million to $370 million. However, BNSF Railway believes that the $308 million recorded at December 31, 2018 is the best estimate of the Company's future obligation for the settlement of personal injury claims.

The amounts recorded by BNSF Railway for personal injury liabilities were based upon currently known facts. Future events, such as the number of new claims to be filed each year, the average cost of disposing of claims, as well as the numerous uncertainties surrounding personal injury litigation in the United States, could cause the actual costs to be higher or lower than projected.

Although the final outcome of personal injury matters cannot be predicted with certainty, considering among other things the meritorious legal defenses available and liabilities that have been recorded, it is the opinion of BNSF Railway that none of these items, when finally resolved, will have a material adverse effect on the Company's financial position or liquidity. However, the occurrence of a number of these items in the same period could have a material adverse effect on the results of operations in a particular quarter or fiscal year.

BNSF Insurance Company

Burlington Northern Santa Fe Insurance Company, Ltd. (BNSFIC), a wholly-owned subsidiary of BNSF, offers insurance coverage for certain risks, FELA claims, railroad protective and force account insurance claims and certain excess general liability and property coverage, and certain other claims which are subject to reinsurance. During the years ended December 31, 2018, 2017 and 2016, BNSFIC wrote insurance coverage with premiums totaling $70 million, $74 million and $70 million, respectively, for BNSF Railway, net of reimbursements from third parties. During this same time, BNSF Railway recognized $70 million, $73 million and $70 million, respectively, in expense related to those premiums, which is classified as purchased services in the Consolidated Statements of Income. At December 31, 2018 and 2017, unamortized premiums remaining on the Consolidated Balance Sheets were $6 million for both periods. During the years ended December 31, 2018, 2017 and 2016, BNSFIC made claim payments totaling $37 million, $35 million and $69 million, respectively, for settlement of covered claims. At December 31, 2018 and 2017, claims receivables from BNSFIC were $1 million and $3 million, respectively.

Environmental

The Company's operations, as well as those of its competitors, are subject to extensive federal, state and local environmental regulation. BNSF Railway's operating procedures include practices to protect the environment from the risks inherent in railroad operations, which frequently involve transporting chemicals and other hazardous materials. Additionally, many of BNSF Railway's land holdings are and have been used for industrial or transportation-related purposes or leased to commercial or industrial companies whose activities may have resulted in discharges onto the property. As a result, BNSF Railway is subject to environmental cleanup and enforcement actions. In particular, the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), also known as the Superfund law, as well as similar state laws, generally impose joint and several liability for cleanup and enforcement costs on current and former owners and operators of a site without regard to fault or the legality of the original conduct. BNSF Railway has been notified that it is a potentially responsible party (PRP) for study and cleanup costs at Superfund sites for which investigation and remediation payments are or will be made or are yet to be determined (the Superfund sites) and, in many instances, is one of several PRPs. In addition, BNSF Railway may be considered a PRP under certain other laws. Accordingly, under CERCLA and other federal and state statutes, BNSF Railway may be held jointly and severally liable for all environmental costs associated with a particular site. If there are other PRPs, BNSF Railway generally participates in the cleanup of these sites through cost-sharing agreements with terms that vary from site to site. Costs are typically allocated based on such factors as relative volumetric contribution of material, the amount of time the site was owned or operated and/or the portion of the total site owned or operated by each PRP.

BNSF Railway is involved in a number of administrative and judicial proceedings and other mandatory cleanup efforts for 205 sites, including 19 Superfund sites, at which it is participating in the study or cleanup, or both, of alleged environmental contamination.

Liabilities for environmental cleanup costs are recorded when BNSF Railway's liability for environmental cleanup is probable and reasonably estimable. Subsequent adjustments to initial estimates are recorded as necessary based upon additional information developed in subsequent periods. Environmental costs include initial site surveys and environmental studies as well as costs for remediation of sites determined to be contaminated.

BNSF Railway estimates the ultimate cost of cleanup efforts at its known environmental sites on an annual basis during the third quarter. Ultimate cost estimates for environmental sites are based on current estimated percentage to closure ratios, possible remediation work plans and estimates of the costs and likelihood of each possible outcome, historical payment patterns, and benchmark patterns developed from data accumulated from industry and public sources, including the Environmental Protection Agency and other governmental agencies. These factors incorporate into the estimates experience gained from cleanup efforts at other similar sites. The most significant assumptions are the possible remediation work plans and estimates of the costs and likelihood of each possible outcome for the larger sites.

Annual studies do not include (i) contaminated sites of which the Company is not aware; (ii) additional amounts for third-party tort claims, which arise out of contaminants allegedly migrating from BNSF Railway property, due to a limited number of sites; or (iii) natural resource damage claims. BNSF Railway continues to estimate third-party tort claims on a site by site basis when the liability for such claims is probable and reasonably estimable. BNSF Railway's recorded liability for third-party tort claims as of December 31, 2018 and 2017 was $8 million and $9 million, respectively.

On a quarterly basis, BNSF Railway monitors actual experience against the forecasted remediation and related payments made on existing sites and conducts ongoing environmental contingency analyses, which consider a combination of factors including independent consulting reports, site visits, legal reviews and analysis of the likelihood of other PRPs' participation in, and their ability to pay for, cleanup. Adjustments to the Company's estimates will continue to be recorded as necessary based on developments in subsequent periods. Additionally, environmental accruals, which are classified as materials and other in the Consolidated Statements of Income, include amounts for newly identified sites or contaminants, third-party claims and legal fees incurred for defense of third-party claims and recovery efforts.

The following table summarizes the activity in the Company’s accrued obligations for environmental matters (in millions):

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Beginning balance	**$ 317**	$ 342	$ 369
Accruals / changes in estimates	**—**	5	5
Payments	**(19)**	(30)	(32)
Ending balance	**$ 298**	$ 317	$ 342

At December 31, 2018 and 2017, $40 million was included in current liabilities for both periods.

During the third quarters of 2018, 2017 and 2016, the Company analyzed recent data and trends to ensure the assumptions used by BNSF Railway to estimate its future environmental liability were reasonable. As a result of this study, in the third quarters of 2018, 2017 and 2016, management recorded a reduction to expense of $8 million and additional expense of $2 million and $8 million as of the respective June 30 measurement dates. The Company plans to update its study again in the third quarter of 2019.

BNSF Railway’s environmental liabilities are not discounted. BNSF Railway anticipates that the majority of the accrued costs at December 31, 2018 will be paid over the next ten years, and no individual site is considered to be material.

Liabilities recorded for environmental costs represent BNSF Railway’s best estimate of its probable future obligation for the remediation and settlement of these sites and include both asserted and unasserted claims. Although recorded liabilities include BNSF Railway’s best estimate of all probable costs, without reduction for anticipated recoveries from third parties, BNSF Railway’s total cleanup costs at these sites cannot be predicted with certainty due to various factors such as the extent of corrective actions that may be required, evolving environmental laws and regulations, advances in environmental technology, the extent of other parties’ participation in cleanup efforts, developments in ongoing environmental analyses related to sites determined to be contaminated and developments in environmental surveys and studies of contaminated sites.

Because of the uncertainty surrounding these factors, it is reasonably possible that future costs for environmental liabilities may range from approximately $240 million to $390 million. However, BNSF Railway believes that the $298 million recorded at December 31, 2018 is the best estimate of the Company’s future obligation for environmental costs.

Although the final outcome of these environmental matters cannot be predicted with certainty, it is the opinion of BNSF Railway that none of these items, when finally resolved, will have a material adverse effect on the Company’s financial position or liquidity. However, the occurrence of a number of these items in the same period could have a material adverse effect on the results of operations in a particular quarter or fiscal year.

Other Claims and Litigation

In addition to personal injury and environmental matters discussed above, BNSF Railway and its subsidiaries are also parties to a number of other legal actions and claims, governmental proceedings and private civil suits arising in the ordinary course of business, including those related to disputes and complaints involving certain transportation rates and charges. Some of the legal proceedings include claims for punitive as well as compensatory damages, and from time to time may include proceedings that purport to be class actions. Although the final outcome of these matters cannot be predicted with certainty, considering among other things the meritorious legal defenses available and liabilities that have been recorded along with applicable insurance, BNSF Railway currently believes that none of these items, when finally resolved, will have a material adverse effect on the Company’s financial position or liquidity. However, an unexpected adverse resolution of one or more of these items could have a material adverse effect on the results of operations in a particular quarter or fiscal year.

14. Employment Benefit Plans

BNSF provides a funded, noncontributory qualified pension plan, the BNSF Retirement Plan, which covers most non-union employees, and an unfunded non-tax-qualified pension plan, the BNSF Supplemental Retirement Plan, which covers certain officers and other employees. The benefits under these pension plans are based on years of credited service and the highest consecutive sixty months of compensation for the last ten years of salaried employment with BNSF Railway. In addition, BNSF Railway also provides two funded, noncontributory qualified pension plans which cover certain union employees of the former The Atchison, Topeka and Santa Fe Railway Company (Union Plans). The benefits under these pension plans are based on elections made at the time the plans were implemented. BNSF's funding policy is to contribute annually not less than the regulatory minimum and not more than the maximum amount deductible for income tax purposes with respect to the funded plans.

Certain salaried employees of BNSF Railway who have met age and years of service requirements are eligible for medical benefits, including prescription drug coverage, during retirement. For pre-Medicare participants, the postretirement medical and prescription drug benefit is contributory and provides benefits to retirees and their covered dependents. Retiree contributions are adjusted annually. The plan also contains fixed deductibles, coinsurance and out-of-pocket limitations. For Medicare eligible participants, a yearly stipend is recorded in a Health Reimbursement Account (HRA) established on their behalf. Retirees can use these HRAs to reimburse themselves for eligible out-of-pocket expenses, as well as premiums for personal supplemental insurance policies. HRAs are unfunded, so no funds are expended until the reimbursements are paid. Generally, employees beginning salaried employment with BNSF Railway subsequent to September 22, 1995, are not eligible for medical benefits during retirement.

Components of the net (benefit) cost for certain employee benefit plans were as follows (in millions):

	Pension Benefits		
	Year Ended December 31, 2018	**Year Ended December 31, 2017**	**Year Ended December 31, 2016**
Service cost	**$ 46**	$ 42	$ 46
Interest cost	**82**	88	95
Expected return on plan assets	**(157)**	(149)	(142)
Amortization of prior service credits	**(1)**	—	(1)
Amortization of net loss	**1**	—	1
Settlements	**(1)**	—	(1)
Net (benefit) cost recognized	**$ (30)**	$ (19)	$ (2)

	Retiree Health and Welfare Benefits		
	Year Ended December 31, 2018	**Year Ended December 31, 2017**	**Year Ended December 31, 2016**
Service cost	**$ 1**	$ 1	$ 1
Interest cost	**8**	9	10
Amortization of prior service credits	**(2)**	(2)	(2)
Amortization of net loss	**—**	—	1
Net (benefit) cost recognized	**$ 7**	$ 8	$ 10

The projected benefit obligation is the present value of benefits earned to date by plan participants, including the effect of assumed future salary increases and expected healthcare cost trend rate increases. The following tables show the change in projected benefit obligation (in millions):

Change in Benefit Obligation	Pension Benefits December 31, 2018	Pension Benefits December 31, 2017
Projected benefit obligation at beginning of period	**$ 2,387**	$ 2,247
Service cost	**46**	42
Interest cost	**82**	88
Actuarial (gain) loss	**(158)**	166
Benefits paid	**(149)**	(144)
Settlements	**(10)**	(12)
Projected benefit obligation at end of period	**2,198**	2,387
Component representing future salary increases	**(136)**	(135)
Accumulated benefit obligation at end of period	**$ 2,062**	$ 2,252

Change in Benefit Obligation	Retiree Health and Welfare Benefits December 31, 2018	Retiree Health and Welfare Benefits December 31, 2017
Projected benefit obligation at beginning of period	**$ 241**	$ 237
Service cost	**1**	1
Interest cost	**8**	9
Plan participants' contributions	**4**	4
Actuarial (gain) loss	**(22)**	14
Benefits paid	**(19)**	(23)
Plan amendment	**—**	(1)
Projected benefit obligation at end of period	**$ 213**	$ 241

The following tables show the change in plan assets of the plans (in millions):

Change in Plan Assets	Pension Benefits December 31, 2018	Pension Benefits December 31, 2017
Fair value of plan assets at beginning of period	**$ 2,669**	$ 2,333
Actual return on plan assets	**(189)**	479
Employer contributions[a]	**15**	13
Benefits paid	**(149)**	(144)
Settlements	**(10)**	(12)
Fair value of plan assets at measurement date	**$ 2,336**	$ 2,669

[a] Employer contributions were classified as Other, Net under Operating Activities in the Company's Consolidated Statements of Cash Flows.

Change in Plan Assets	Retiree Health and Welfare Benefits December 31, 2018	Retiree Health and Welfare Benefits December 31, 2017
Fair value of plan assets at beginning of period	**$ 29**	$ —
Employer contributions[a]	**—**	48
Plan participants' contributions	**4**	4
Benefits paid	**(19)**	(23)
Fair value of plan assets at measurement date	**$ 14**	$ 29

[a] Employer contributions were classified as Other, Net under Operating Activities in the Company's Consolidated Statements of Cash Flows.

The following table shows the funded status, defined as plan assets less the projected benefit obligation (in millions):

	Pension Benefits		Retiree Health and Welfare Benefits	
	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
Funded status (plan assets less projected benefit obligations)	**$ 138**	$ 282	**$ (199)**	$ (212)

Of the net combined pension and retiree health and welfare benefit obligation of $61 million recognized as of December 31, 2018 and asset of $70 million recognized as of December 31, 2017, $34 million and $16 million were included in other current liabilities at December 31, 2018 and 2017, respectively, and $240 million and $396 million were included in other assets at December 31, 2018 and 2017, respectively.

The BNSF Supplemental Retirement Plan and the Union Plans have accumulated and projected benefit obligations in excess of plan assets. The following table shows the projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the three plans (in millions):

	December 31, 2018	December 31, 2017
Projected benefit obligation	**$ 138**	$ 157
Accumulated benefit obligation	**$ 138**	$ 157
Fair value of plan assets	**$ 36**	$ 43

Actuarial gains and losses and prior service credits are recognized in the Consolidated Balance Sheets through an adjustment to accumulated other comprehensive income (loss) (AOCI). The following tables show the pre-tax change in AOCI attributable to the components of the net cost and the change in benefit obligation (in millions):

	Pension Benefits		
Change in AOCI	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Beginning balance	**$ 371**	$ 207	$ 102
Amortization of net loss	**1**	—	1
Amortization of prior service credits	**(1)**	—	(1)
Actuarial gain (loss)	**(188)**	164	106
Settlements	**(1)**	—	(1)
Ending balance	**$ 182**	$ 371	$ 207

	Retiree Health and Welfare Benefits		
Change in AOCI	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Beginning balance	**$ (24)**	$ (9)	$ (21)
Amortization of net loss	**—**	—	1
Amortization of prior service credits	**(2)**	(2)	(2)
Actuarial gain (loss)	**22**	(14)	13
Prior service credits	**—**	1	—
Ending balance	**$ (4)**	$ (24)	$ (9)

Approximately $2 million, net of tax, of the actuarial gains and less than $1 million, net of tax, of the prior service credits from defined benefit pension plans in AOCI are required to be amortized into net periodic benefit cost over the next fiscal year. Less than $1 million, net of tax, of the prior service credits and actuarial losses from retiree health and welfare benefit plans in AOCI are required to be amortized into net periodic benefit cost over the next fiscal year. Pre-tax amounts currently recognized in AOCI consist of the following (in millions):

	Pension Benefits		Retiree Health and Welfare Benefits	
	2018	**2017**	**2018**	**2017**
Net gain (loss)	**$ 183**	$ 370	**$ (6)**	$ (28)
Prior service credits	**3**	4	**2**	4
Settlements	**(4)**	(3)	**—**	—
Pre-tax amount recognized in AOCI at December 31,	**$ 182**	$ 371	**$ (4)**	$ (24)
After-tax amount recognized in AOCI at December 31,	**$ 108**	$ 251	**$ (2)**	$ (17)

The assumptions used in accounting for the plans were as follows:

	Pension Benefits		
Assumptions Used to Determine Net Cost	**Year Ended December 31, 2018**	**Year Ended December 31, 2017**	**Year Ended December 31, 2016**
Discount rate	**3.6%**	4.1%	4.2%
Expected long-term rate of return on plan assets	**6.6%**	6.6%	6.6%
Rate of compensation increase	**3.6%**	3.3%	3.8%

	Retiree Health and Welfare Benefits		
Assumptions Used to Determine Net Cost	**Year Ended December 31, 2018**	**Year Ended December 31, 2017**	**Year Ended December 31, 2016**
Discount rate	**3.5%**	3.9%	4.1%
Rate of compensation increase	**3.6%**	3.3%	3.8%

	Pension Benefits		Retiree Health and Welfare Benefits	
Assumptions Used to Determine Benefit Obligations	**December 31, 2018**	**December 31, 2017**	**December 31, 2018**	**December 31, 2017**
Discount rate	**4.2%**	3.6%	**4.1%**	3.5%
Rate of compensation increase	**3.5%**	3.6%	**3.5%**	3.6%

The discount rate was determined based on a yield curve that utilized year-end market yields of high-quality corporate bonds to develop spot rates that are matched against the plans' expected benefit payments. The discount rate used for the 2019 calculation of net benefit cost increased to 4.2 percent for pension and 4.1 percent for retiree health and welfare benefits, which reflects market conditions at the December 31, 2018 measurement date.

Various other assumptions including retirement and withdrawal rates, compensation increases, payment form and benefit commencement age are based upon a five-year experience study. In 2016, an updated study was obtained which had an immaterial impact on its pension and retiree health and welfare projected benefit obligation.

Actuary-produced mortality tables were utilized and an improvement scale was derived from the most recently available data, which were used in the calculation of its December 31, 2018 and 2017 liabilities.

Pension plan assets are generally invested with the long-term objective of earning sufficient amounts to cover expected benefit obligations, while assuming a prudent level of risk. Allocations may change as a result of changing market conditions and investment opportunities. Generally, the policy is to fund the retiree health and welfare benefits as they come due, however the Company pre-funded $29 million towards the plans in 2017. As of December 31, 2018, there is a balance of $14 million that is expected to be fully used by the end of 2019.

The expected rates of return on plan assets reflect subjective assessments of expected invested asset returns over a period of several years. Actual experience will differ from the assumed rates. The expected rate of return on pension plan assets was 6.6 percent for 2018 and will be 6.7 percent for 2019. The expected rate of return on retiree health and welfare benefit plan assets was 1.7 percent for 2018 and will be 1.4 percent for 2019.

The following table is an estimate of the impact on future net benefit cost that could result from hypothetical changes to the most sensitive assumptions, the discount rate and expected rate of return on plan assets:

Sensitivity Analysis				
	Change in 2019 Net Benefit Cost			
Hypothetical Discount Rate Change		**Pension**		**Retiree Health and Welfare**
50 basis point decrease	$	3 million increase	$	— million decrease
50 basis point increase	$	9 million decrease	$	1 million increase
Hypothetical Expected Rate of Return on Plan Assets Change		**Pension**		**Retiree Health and Welfare**
50 basis point decrease	$	12 million increase	$	— million increase
50 basis point increase	$	12 million decrease	$	— million decrease

The following table presents assumed health care cost trend rates:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Assumed health care cost trend rate for next year (participants over 65)	**3.0%**	3.0%	3.0%
Assumed health care cost trend rate for next year (participants under 65)	**6.7%**	7.0%	7.4%
Rate to which health care cost trend rate for participants under 65 is expected to decline and remain	**4.5%**	4.5%	4.4%
Year that the rate reaches the ultimate trend rate	**2039**	2039	2039

Assumed health care cost trend rates have a significant effect on the amounts reported for the postretirement health care plans. A one percentage point change in assumed health care cost trend rates would have the following effects (in millions):

		One Percentage-Point Increase		One Percentage-Point Decrease
Effect on total service and interest cost	$	1	$	(1)
Effect on postretirement benefit obligation	$	14	$	(12)

Investments are stated at fair value. The various types of investments are valued as follows:

(i) Equity securities are valued at the last trade price at primary exchange close time on the last business day of the year (Level 1 input). If the last trade price is not available, values are based on bid, ask/offer quotes from contracted pricing vendors, brokers, or investment managers (Level 3 input or Level 2 if corroborated).

(ii) Highly liquid government obligations, such as U.S. Treasury securities, are valued based on quoted prices in active markets for identical assets (Level 1 input). Other fixed maturity securities and government obligations are valued based on institutional bid evaluations from contracted vendors. Where available, vendors use observable market-based data to evaluate prices (Level 2 input). If observable market-based data is not available, unobservable inputs such as extrapolated data, proprietary models, and indicative quotes are used to arrive at estimated prices representing the price a dealer would pay for the security (Level 3 input).

(iii) Investment funds / other are valued at the daily net asset value of shares held at year end. Net asset value is considered a Level 1 input if net asset value is computed daily and redemptions at this value are available to all shareholders without restriction. Net asset value is considered a Level 2 input if the fund may restrict share redemptions under limited circumstances or if net asset value is not computed daily. Net asset value is considered a Level 3 input if shares could not be redeemed on the reporting date and net asset value cannot be corroborated by trading activity.

The following table summarizes the investments of the funded pension plans as of December 31, 2018, based on the inputs used to value them (in millions):

Asset Category	Total as of December 31, 2018	Level 1 Inputs [a]	Level 2 Inputs [a]	Level 3 Inputs [a]
Cash and equivalents	$ 21	$ 1	$ 20	$ —
Equity securities[b]	1,895	1,895	—	—
Government obligations	403	403	—	—
Other fixed maturity securities	14	—	14	—
Investment funds and other	3	3	—	—
Total[c]	$ 2,336	$ 2,302	$ 34	$ —

[a] See Note 2 to the Consolidated Financial Statements under the heading "Fair Value Measurements" for a definition of each of these levels of inputs.
[b] As of December 31, 2018, three equity securities each exceeded 10 percent of total plan assets. These investments represent approximately 51 percent of total plan assets.
[c] Excludes less than $1 million accrued for dividend and interest receivable.

In addition, there was $14 million and $29 million invested in cash and cash equivalents, valued using Level 1 inputs, related to the retiree health and welfare benefit plans as of December 31, 2018 and 2017, respectively.

Comparative Prior Year Information

The following table summarizes the investments of the funded pension plans as of December 31, 2017, based on the inputs used to value them (in millions):

Asset Category	Total as of December 31, 2017	Level 1 Inputs [a]	Level 2 Inputs [a]	Level 3 Inputs [a]
Cash and equivalents	$ 13	$ 2	$ 11	$ —
Equity securities[b]	2,440	2,440	—	—
Government obligations	197	197	—	—
Other fixed maturity securities	14	—	14	—
Investment funds and other	5	5	—	—
Total [c]	$ 2,669	$ 2,644	$ 25	$ —

[a] See Note 2 to the Consolidated Financial Statements under the heading "Fair Value Measurements" for a definition of each of these levels of inputs.
[b] As of December 31, 2017, three equity securities each exceeded 10 percent of total plan assets. These investments represented approximately 47 percent of total plan assets.
[c] Excludes less than $1 million accrued for dividend and interest receivable.

The Company is not required to make contributions to its funded pension plans in 2019. The Company expects to contribute $31 million to its unfunded non-qualified pension plan in 2019.

The following table shows expected benefit payments from its defined benefit pension plans and expected claim payments for the retiree health and welfare plan for the next five fiscal years and the aggregate five years thereafter (in millions):

Fiscal year	Expected Pension Plan Benefit Payments[a]	Expected Retiree Health and Welfare Payments[b]
2019	$ 183	$ 18
2020	$ 150	$ 17
2021	$ 144	$ 17
2022	$ 139	$ 16
2023	$ 134	$ 15
2024-2028	$ 633	$ 67

[a] Primarily consists of the BNSF Retirement Plan payments, which are made from the plan trust and do not represent an immediate cash outflow to the Company.
[b] Expected payments for a portion of 2019 will be made from the plan trust and do not represent an immediate cash outflow to the Company.

Defined Contribution Plans

BNSF and BNSF Railway sponsor qualified 401(k) plans that cover substantially all employees and a non-qualified defined contribution plan that covers certain officers and other employees. BNSF Railway matched 75 percent of the first six percent of non-union employees' contributions and matched 25 percent on the first four percent of a limited number of union employees' contributions, which are subject to certain percentage limits of the employees' earnings, at each pay period. Employer contributions are subject to a five-year length of service vesting schedule. BNSF Railway's 401(k) matching expense was $35 million, $34 million, and $33 million during the years ended December 31, 2018, 2017, and 2016, respectively.

Other

Under collective bargaining agreements, BNSF Railway participates in multi-employer benefit plans that provide certain postretirement health care and life insurance benefits for eligible union employees. Health care claim payments and life insurance premiums paid attributable to retirees, which are generally expensed as incurred, were $64 million, $75 million and $61 million during the years ended December 31, 2018, 2017 and 2016, respectively. The average number of employees covered under these plans were 37 thousand, 35 thousand, and 36 thousand during the years ended December 31, 2018, 2017, and 2016, respectively.

15. Related Party Transactions

BNSF Railway is involved with BNSF and certain of its subsidiaries in related party transactions in the ordinary course of business, which include payments made on each other's behalf and performance of services. Under the terms of a tax allocation agreement with BNSF, BNSF Railway made federal and state income tax payments, net of refunds, of $1.6 billion, $2.0 billion and $996 million during the years ended December 31, 2018, 2017 and 2016, respectively, which are reflected in changes in working capital in the Consolidated Statements of Cash Flows. As of December 31, 2018 and 2017, BNSF Railway had a tax payable to BNSF of $231 million and $195 million, respectively. Uncertain tax positions will affect the tax payable to BNSF if and when settled. As of December 31, 2018 and December 31, 2017, the Company had $33 million and $90 million, respectively, payable to BNSF related to prior year tax audit settlements.

At December 31, 2018 and 2017, BNSF Railway had $426 million and $338 million, respectively, of intercompany receivables which are reflected in accounts receivable in the respective Consolidated Balance Sheets. At December 31, 2018 and 2017, BNSF Railway had $22 million and $14 million of intercompany payables, respectively, which are reflected in accounts payable in the respective Consolidated Balance Sheets. Net intercompany balances are settled in the ordinary course of business.

At December 31, 2018 and 2017, BNSF Railway had $25.3 billion and $19.8 billion, respectively, of intercompany notes receivable from BNSF. During the years ended December 31, 2018, 2017 and 2016, loans to BNSF were $5.5 billion, $3.9 billion and $3.6 billion, respectively, partially offset by repayments received of $146 million and $42 million in 2017 and 2016, respectively. There were no repayments received for the year ended December 31, 2018. All intercompany notes have a variable interest rate of 1.0 percent above the monthly average of the daily effective Federal Funds rate. Interest is collected semi-annually on all intercompany notes receivable. Interest income from intercompany notes receivable is presented in interest income, related parties in the Consolidated Statements of Income.

BNSF Railway engages in various transactions with related parties in the ordinary course of business. The following table summarizes revenues earned by BNSF Railway for services provided to related parties and expenditures to related parties (in millions):

	Year Ended December 31, 2018	**Year Ended December 31, 2017**	**Year Ended December 31, 2016**
Revenues	**$ 162**	$ 150	$ 164
Expenditures	**$ 434**	$ 388	$ 340

BNSF Railway owns 17.3 percent of TTX Company (TTX) while other North American railroads own the remaining interest. As BNSF Railway possesses the ability to exercise significant influence, but not control, over the operating and financial policies of TTX, BNSF Railway applies the equity method of accounting to its investment in TTX. The investment in TTX recorded under the equity method is recorded in other assets. Equity income or losses are recorded in materials and other in the Consolidated Statements of Income. North American railroads pay TTX car hire to use TTX's freight equipment to serve their customers. BNSF Railway's car hire expenditures incurred with TTX are included in the table above. BNSF Railway had $609 million and $554 million recognized as investments related to TTX in its Consolidated Balance Sheets as of December 31, 2018 and 2017, respectively.

16. Accumulated Other Comprehensive Income

Other comprehensive income refers to revenues, expenses, gains and losses that under generally accepted accounting principles are included in accumulated other comprehensive income, a component of equity within the Consolidated Balance Sheets, rather than net income on the Consolidated Statements of Income. Under existing accounting standards, other comprehensive income may include, among other things, unrecognized gains and losses and prior service credit related to pension and other postretirement benefit plans.

The following tables provide the components of accumulated other comprehensive income (loss) (AOCI) by component (in millions):

	Pension and Retiree Health and Welfare Benefit Items[a]	Equity Method Investments	Total
Balance at December 31, 2017	$ 234	$ (3)	$ 231
Other comprehensive (loss) income before reclassifications	(126)	1	(125)
Amounts reclassified from AOCI	25	(1)	24
Balance at December 31, 2018	**$ 133**	**$ (3)**	**$ 130**
Balance at December 31, 2016	$ 122	$ (3)	$ 119
Other comprehensive income (loss) before reclassifications	114	—	114
Amounts reclassified from AOCI	(2)	—	(2)
Balance at December 31, 2017	**$ 234**	**$ (3)**	**$ 231**

[a] Amounts are net of tax. See Note 14 to the Consolidated Financial Statements for additional details.

Reclassifications out of AOCI[b]			
Details about AOCI Components	**Year Ended December 31, 2018**	**Year Ended December 31, 2017**	**Income Statement Line Item**
Amortization of pension and retiree health and welfare benefit items			
Actuarial losses	$ (1)	$ —	[c]
Prior service credits	3	2	[c]
Reclassification due to ASU 2016-01 adoption	1	—	
Reclassification due to ASU 2018-02 adoption	(26)	—	
	(23)	2	Total before tax
	(1)	—	Tax benefit / (expense)
Total reclassifications for the period	**$ (24)**	**$ 2**	Net of tax

[b] Amounts in parentheses indicate debits to the income statement.
[c] This accumulated other comprehensive income component is included in the computation of net periodic pension and retiree health and welfare cost (see Note 14 to the Consolidated Financial Statements for additional details).

17. Quarterly Financial Data—Unaudited

Dollars in millions

2018	**Fourth**	**Third**	**Second**	**First**
Revenues	**$ 5,991**	**$ 5,912**	**$ 5,664**	**$ 5,432**
Operating income	**$ 2,064**	**$ 2,111**	**$ 1,883**	**$ 1,738**
Net income	**$ 1,725**	**$ 1,702**	**$ 1,603**	**$ 1,409**

2017	**Fourth**	**Third**	**Second**	**First**
Revenues	$ 5,456	$ 5,151	$ 5,093	$ 5,047
Operating income	$ 1,989	$ 1,924	$ 1,753	$ 1,576
Net income	$ 8,710	$ 1,242	$ 1,140	$ 1,027

Certification by Vice President

With respect to the annual financial statements and related footnotes ofBNSF Railway Company (the Company) for the period ended December 31, 2018, the undersigned, Paul W. Bischler, Vice President - Controller and Chief Sourcing Officer of the Company, hereby certifies that, to his knowledge as of the date hereof, the information contained in such attached financial statements and related footnotes fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 22, 2019

Paul W. Bischler
Vice President - Controller and Chief Sourcing Officer