FORM 10-Q

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

(Mark One)

☑ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2019

OR

TRANSITION	REPORT	PURSUANT	TO	SECTION	13	OR	15(d)	OF	THE	SECURITI	ES
EXCHANGE A	CT OF 193	4									

For the transition period from to Commission file number 001-14905

BERKSHIRE HATHAWAY INC.

(Exact name of registrant as specified in its charter)

Delaware

47-0813844

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

3555 Farnam Street, Omaha, Nebraska 68131

(Address of principal executive office) (Zip Code)

(402) 346-1400

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbols	Name of each exchange on which registered
Class A Common Stock	BRK.A	New York Stock Exchange
Class B Common Stock	BRK.B	New York Stock Exchange
0.750% Senior Notes due 2023	BRK23	New York Stock Exchange
1.125% Senior Notes due 2027	BRK27	New York Stock Exchange
1.625% Senior Notes due 2035	BRK35	New York Stock Exchange
0.500% Senior Notes due 2020	BRK20	New York Stock Exchange
1.300% Senior Notes due 2024	BRK24	New York Stock Exchange
2.150% Senior Notes due 2028	BRK28	New York Stock Exchange
0.250% Senior Notes due 2021	BRK21	New York Stock Exchange
0.625% Senior Notes due 2023	BRK23A	New York Stock Exchange
2.375% Senior Notes due 2039	BRK39	New York Stock Exchange
2.625% Senior Notes due 2059	BRK59	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ⋈ No □

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T ($\S232.405$ of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \boxtimes No \square

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	\boxtimes				Accelerated filer	
Non-accelerated filer					Smaller reporting compan	y □
					Emerging growth company	y П
	_	 	 _	 _		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes \square No \boxtimes

Number of shares of common stock outstanding as of July 25, 2019:

Class A — 709,836 Class B — 1,386,311,473

BERKSHIRE HATHAWAY INC.

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Part I Financial Information Item 1. Financial Statements BERKSHIRE HATHAWAY INC. and Subsidiaries

CONSOLIDATED BALANCE SHEETS

(dollars in millions)

	 June 30, 2019 (Unaudited)	I	December 31, 2018		
ASSETS	(chadaica)				
Insurance and Other:					
Cash and cash equivalents*	\$ 41,375	\$	27,749		
Short-term investments in U.S. Treasury Bills	77,745		81,506		
Investments in fixed maturity securities	19,962		19,898		
Investments in equity securities	200,516		172,757		
Equity method investments	17,208		17,325		
Loans and finance receivables	16,807		16,280		
Other receivables	33,941		31,564		
Inventories	19,834		19,069		
Property, plant and equipment	21,204		20,628		
Equipment held for lease	14,741		14,298		
Goodwill	56,487		56,323		
Other intangible assets	31,032		31,499		
Deferred charges under retroactive reinsurance contracts	13,634		14,104		
Other	13,097		9,307		
	577,583		532,307		
Railroad, Utilities and Energy:					
Cash and cash equivalents*	3,259		2,612		
Receivables	3,641		3,666		
Property, plant and equipment	133,515		131,780		
Goodwill	24,782		24,702		
Regulatory assets	3,073		3,067		
Other	14,255		9,660		
	182,525		175,487		
	\$ 760,108	\$	707,794		

^{*} Cash and cash equivalents included U.S. Treasury Bills with maturities of three months or less when purchased of \$16.2 billion at June 30, 2019 and \$3.9 billion at December 31, 2018.

BERKSHIRE HATHAWAY INC. and Subsidiaries CONSOLIDATED BALANCE SHEETS

(dollars in millions)

		June 30, 2019	D	ecember 31, 2018
LIABILITIES AND SHAREHOLDERS' EQUITY	(Unaudited)		
Insurance and Other:				
Unpaid losses and loss adjustment expenses	\$	70,781	\$	68,458
Unpaid losses and loss adjustment expenses under retroactive reinsurance contracts	Ψ	41,549	Ψ	41,834
Unearned premiums		20,113		18,093
Life, annuity and health insurance benefits		19,155		18,632
Other policyholder liabilities		7,826		7,675
Accounts payable, accruals and other liabilities		25,468		25,776
Derivative contract liabilities		1,470		2,452
Aircraft repurchase liabilities and unearned lease revenues		5,146		4,593
Notes payable and other borrowings		36,025		34,975
		227,533		222,488
Railroad, Utilities and Energy:				<u> </u>
Accounts payable, accruals and other liabilities		15,120		11,410
Regulatory liabilities		7,560		7,506
Notes payable and other borrowings		63,882		62,515
		86,562		81,431
Income taxes, principally deferred		59,622		51,375
Total liabilities		373,717		355,294
Shareholders' equity:				·
Common stock		8		8
Capital in excess of par value		35,610		35,707
Accumulated other comprehensive income		(4,678)		(5,015)
Retained earnings		356,846		321,112
Treasury stock, at cost		(5,242)		(3,109)
Berkshire Hathaway shareholders' equity		382,544		348,703
Noncontrolling interests		3,847		3,797
Total shareholders' equity		386,391		352,500
	\$	760,108	\$	707,794

BERKSHIRE HATHAWAY INC.

and Subsidiaries

CONSOLIDATED STATEMENTS OF EARNINGS

(dollars in millions except per share amounts)

	Second Quarter					First Six Months			
		2019		018		2019 2018			
		(Unau	ıdited)			(Unau	dited)		
Revenues:									
Insurance and Other:									
Insurance premiums earned	\$	14,863	\$	14,149	\$	29,182	\$	27,522	
Sales and service revenues		34,128		33,778		66,537		65,660	
Leasing revenues		1,491		1,470		2,927		2,904	
Interest, dividend and other investment income		2,295		1,908		4,412		3,590	
		52,777		51,305		103,058		99,676	
Railroad, Utilities and Energy:									
Freight rail transportation revenues		5,851		5,845		11,576		11,435	
Energy operating revenues		3,566		3,720		7,391		7,399	
Service revenues and other income		1,404		1,330		2,251		2,163	
		10,821		10,895		21,218		20,997	
Total revenues		63,598		62,200		124,276		120,673	
Investment and derivative contract gains (losses):									
Investment gains (losses)		9,835		5,990		29,387		(1,819)	
Derivative contract gains (losses)		213		372		983		166	
		10,048		6,362		30,370		(1,653)	
Costs and expenses:									
Insurance and Other:									
Insurance losses and loss adjustment expenses		10,669		9,401		20,843		18,364	
Life, annuity and health insurance benefits		1,165		1,418		2,069		2,705	
Insurance underwriting expenses		2,569		2,123		5,325		4,727	
Cost of sales and services		27,047		26,709		52,814		52,170	
Cost of leasing		1,000		988		2,020		1,971	
Selling, general and administrative expenses		4,829		4,232		9,261		8,940	
Interest expense		267		255		529		520	
		47,546		45,126		92,861		89,397	
Railroad, Utilities and Energy:		17,610		10,120		<u> </u>		0,0,0,7	
Freight rail transportation expenses		3,885		3,974		7,867		7,826	
Utilities and energy cost of sales and other expenses		2,680		2,856		5,522		5,656	
Other expenses		1,175		1,133		1,828		1,882	
Interest expense		725		702		1,454		1,412	
morest empones		8,465		8,665		16,671		16,776	
Total costs and expenses	_	56,011		53,791	_	109,532	_	106,173	
Earnings (loss) before income taxes and equity method earnings		17,635		14,771		45,114		12,847	
Equity method earnings		124		327		292		728	
Earnings (loss) before income taxes		17,759		15,098	_	45,406		13,575	
Income tax expense (benefit)		3,586		3,021		9,501		2,569	
Net earnings (loss)		14,173		12,077		35,905		11,006	
Earnings (toss) Earnings attributable to noncontrolling interests		100		66		171		133	
Net earnings (loss) attributable to Berkshire Hathaway shareholders	\$	14,073	\$	12,011	\$	35,734	\$	10,873	
	\$				\$		\$		
Net earnings (loss) per average equivalent Class A share	\$	8,608	\$	7,301	\$	21,824	\$	6,610	
Net earnings (loss) per average equivalent Class B share*	\$	5.74	\$	4.87	\$	14.55	\$	4.41	
Average equivalent Class A shares outstanding	2.4	1,634,962		,645,057	2	1,637,378	2 1	1,645,008	
Average equivalent Class B shares outstanding	2,4	52,442,401	2,467	,585,853	2,	456,067,007	2,4	67,511,782	

^{*} Class B shares are economically equivalent to one-fifteen-hundredth of a Class A share. Accordingly, net earnings per average equivalent Class B share outstanding is equal to one-fifteen-hundredth of the equivalent Class A amount. See Note 20.

BERKSHIRE HATHAWAY INC.

and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(dollars in millions)

	Second (Quarte	er	First Six Months				
	2019		2018		2019		2018	
	(Unaud	dited)			(Unau	dited)		
Net earnings (loss)	\$ 14,173	\$	12,077	\$	35,905	\$	11,006	
Other comprehensive income:								
Net change in unrealized appreciation of investments	97		(92)		214		(137)	
Applicable income taxes	(22)		22		(49)		20	
Reclassification of investment appreciation in net earnings	(1)		(44)		4		(265)	
Applicable income taxes	_		10		(1)		56	
Foreign currency translation	(17)		(1,364)		166		(763)	
Applicable income taxes	_		43		(3)		37	
Defined benefit pension plans	26		87		92		63	
Applicable income taxes	(6)		(20)		(23)		(3)	
Other, net	(32)		(5)		(45)		(36)	
Other comprehensive income, net	45		(1,363)		355		(1,028)	
Comprehensive income	14,218		10,714		36,260		9,978	
Comprehensive income attributable to noncontrolling interests	96		34		189		109	
Comprehensive income attributable to Berkshire Hathaway				-				
shareholders	\$ 14,122	\$	10,680	\$	36,071	\$	9,869	

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Unaudited)

(dollars in millions)

	(Berks							
	Common stock and capital in excess of par value		Accumulated other comprehensive income		Retained earnings	Treasury stock		Non- controlling interests	Total
Balance at December 31, 2017	\$	35,702	\$	58,571	\$ 255,786	\$	(1,763)	\$ 3,658	\$ 351,954
Adoption of new accounting pronouncements		_		(61,375)	61,304		_	_	(71)
Net earnings (loss)		_		_	(1,138)		_	67	(1,071)
Other comprehensive income, net		_		327	_		_	8	335
Issuance (acquisition) of common stock		24		_	_		_	_	24
Transactions with noncontrolling interests		(37)						(82)	(119)
Balance at March 31, 2018		35,689		(2,477)	315,952		(1,763)	3,651	351,052
Net earnings (loss)		_		_	12,011		_	66	12,077
Other comprehensive income, net		_		(1,331)	_		_	(32)	(1,363)
Issuance (acquisition) of common stock		8		_			_	_	8
Transactions with noncontrolling interests		5						(21)	(16)
Balance at June 30, 2018	\$	35,702	\$	(3,808)	\$ 327,963	\$	(1,763)	\$ 3,664	\$ 361,758
Balance at December 31, 2018	\$	35,715	\$	(5,015)	\$ 321,112	\$	(3,109)	\$ 3,797	\$ 352,500
Net earnings (loss)		_		_	21,661		_	71	21,732
Other comprehensive income, net		_		288	_		_	22	310
Issuance (acquisition) of common stock		13		_			(1,690)		(1,677)
Transactions with noncontrolling interests		(98)						(176)	(274)
Balance at March 31, 2019		35,630		(4,727)	342,773		(4,799)	3,714	372,591
Net earnings (loss)		_		_	14,073		_	100	14,173
Other comprehensive income, net		_		49	_		_	(4)	45
Issuance (acquisition) of common stock		8		_	_		(443)	_	(435)
Transactions with noncontrolling interests		(20)						37	17
Balance at June 30, 2019	\$	35,618	\$	(4,678)	\$ 356,846	\$	(5,242)	\$ 3,847	\$ 386,391

BERKSHIRE HATHAWAY INC. and Subsidiaries CONSOLIDATED STATEMENTS OF CASH FLOWS

(dollars in millions)

		First Six	Months	
		2019		2018
		(Unau	dited)	
Cash flows from operating activities:	¢	25.005	¢	11 006
Net earnings (loss)	\$	35,905	\$	11,006
Adjustments to reconcile net earnings (loss) to operating cash flows:		(29,387)		1,819
Investment (gains) losses Depreciation and amortization		4,873		4,774
Other		(737)		(421
Changes in operating assets and liabilities:		(737)		(421
Losses and loss adjustment expenses		2,032		924
Deferred charges reinsurance assumed		470		549
Unearned premiums		2,005		2,253
Receivables and originated loans		(3,094)		(3,413
Other assets		(2,102)		(1,367
Other liabilities		(1,359)		(45
Income taxes		8,156		12
Net cash flows from operating activities		16,762		16,091
Cash flows from investing activities:		10,702		10,071
Purchases of U.S. Treasury Bills and fixed maturity securities		(66,754)		(50,227
Purchases of equity securities		(2,834)		(20,845
Sales of U.S. Treasury Bills and fixed maturity securities		6,733		19,374
Redemptions and maturities of U.S. Treasury Bills and fixed maturity securities		62,807		71,486
Sales and redemptions of equity securities		4,460		9,011
Purchases of loans and finance receivables		(191)		(81
Collections of loans and finance receivables		175		188
Acquisitions of businesses, net of cash acquired		(580)		(373
Purchases of property, plant and equipment and equipment held for lease		(6,747)		(6,329
Other		23		226
Net cash flows from investing activities		(2,908)		22,430
Cash flows from financing activities:		_		
Proceeds from borrowings of insurance and other businesses		4,176		49
Proceeds from borrowings of railroad, utilities and energy businesses		3,339		4,239
Repayments of borrowings of insurance and other businesses		(2,907)		(6,043
Repayments of borrowings of railroad, utilities and energy businesses		(1,690)		(2,428
Changes in short term borrowings, net		(95)		(1,080
Acquisition of treasury stock		(2,133)		_
Other		(279)		(253
Net cash flows from financing activities		411		(5,516
Effects of foreign currency exchange rate changes		26		(41
Increase in cash and cash equivalents and restricted cash		14,291		32,964
Cash and cash equivalents and restricted cash at beginning of year		30,811		32,212
Cash and cash equivalents and restricted cash at end of second quarter *	\$	45,102	\$	65,176
* Cash and cash equivalents and restricted cash are comprised of the following:		_		
Beginning of year—				
Insurance and Other	\$	27,749	\$	28,673
Railroad, Utilities and Energy		2,612		2,910
Restricted cash, included in other assets		450		629
	\$	30,811	\$	32,212
End of second quarter—				
Insurance and Other	\$	41,375	\$	61,198
Railroad, Utilities and Energy		3,259		3,363
Restricted cash, included in other assets		468		615
	\$	45,102	\$	65,176

BERKSHIRE HATHAWAY INC.

and Subsidiaries

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2019

Note 1. General

The accompanying unaudited Consolidated Financial Statements include the accounts of Berkshire Hathaway Inc. ("Berkshire" or "Company") consolidated with the accounts of all its subsidiaries and affiliates in which Berkshire holds controlling financial interests as of the financial statement date. In these notes, the terms "us," "we" or "our" refer to Berkshire and its consolidated subsidiaries. Reference is made to Berkshire's most recently issued Annual Report on Form 10-K ("Annual Report"), which includes information necessary or useful to understanding Berkshire's businesses and financial statement presentations. Our significant accounting policies and practices were presented as Note 1 to the Consolidated Financial Statements included in the Annual Report. As described in the Annual Report, we modified certain presentations to our Consolidated Financial Statements. Presentations in these interim Consolidated Financial Statements conform to the presentations in the Annual Report. Changes to those policies due to the adoption of a new accounting standard are described in Note 2.

Financial information in this Quarterly Report reflects all adjustments (consisting only of normal recurring adjustments) that are, in the opinion of management, necessary to a fair statement of results for the interim periods in accordance with accounting principles generally accepted in the United States ("GAAP"). For a number of reasons, our results for interim periods are not normally indicative of results to be expected for the year. The timing and magnitude of catastrophe losses incurred by insurance subsidiaries and the estimation error inherent to the process of determining liabilities for unpaid losses of insurance subsidiaries can be more significant to results of interim periods than to results for a full year. In light of the size of our equity security investment portfolio, changes in market prices and the related changes in unrealized gains on equity securities will produce significant volatility in our interim and annual earnings. In addition, changes in the fair values of certain derivative contract liabilities and gains and losses from the periodic revaluation of certain assets and liabilities denominated in foreign currencies can cause significant variations in periodic net earnings.

Note 2. New Accounting Pronouncements

Berkshire adopted Accounting Standards Codification ("ASC") 842 "Leases" on January 1, 2019. Most significantly, ASC 842 requires a lessee to recognize a liability to make lease payments and an asset with respect to its right to use the underlying asset for the lease term. Upon the adoption of ASC 842, we recognized operating lease assets of approximately \$6.2 billion and lease liabilities of \$5.9 billion. We also reduced other assets by approximately \$300 million. Consequently, our consolidated assets and liabilities increased by approximately \$5.9 billion.

We are party to contracts where we lease property from others ("lessee" contracts) and where we lease property to others ("lessor" contracts). In adopting and applying ASC 842, we elected to use practical expedients, including but not limited to, not reassessing past lease and easement accounting, not separating lease components from non-lease components by class of asset and not recording assets or liabilities for leases with terms of one year or less. We adopted ASC 842 as of January 1, 2019 with regard to contracts in effect as of that date and elected to not restate prior period financial statements. ASC 842 did not have a material effect on our accounting for our lessor contracts or for lessee contracts classified as financing leases.

Right-of-use assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. In this regard, lease payments include fixed payments and variable payments that depend on an index or rate. The lease term is generally the non-cancellable lease period. Certain lease contracts contain renewal options or other terms that provide for variable payments based on performance or usage or changes in an index or interest rates. Options are not included in determining right-of-use assets or lease liabilities unless it is reasonably certain that options will be exercised. Generally, incremental borrowing rates are used in measuring lease liabilities. Right-of-use assets are subject to review for impairment.

Note 2. New Accounting Pronouncements (Continued)

On January 1, 2018, we adopted Accounting Standards Update ("ASU") 2016-01 "Financial Instruments—Recognition and Measurement of Financial Assets and Financial Liabilities," ASU 2018-02 "Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income" and ASC 606 "Revenues from Contracts with Customers." Prior year financial statements were not restated. A summary of the effects of the initial adoption of ASU 2016-01, ASU 2018-02 and ASC 606 on our shareholders' equity follows (in millions).

	ASU 2016-01	ASU 2018-02	ASC 606	Total
Increase (decrease):				
Accumulated other comprehensive income	\$ (61,459)	\$ 84	\$ —	\$ (61,375)
Retained earnings	61,459	(84)	(70)	61,305
Shareholders' equity	_	_	(70)	(70)

With respect to ASU 2016-01, beginning in 2018, unrealized gains and losses from the changes in the fair values of our equity securities during the period are included within investment gains (losses) in the Consolidated Statements of Earnings. As of January 1, 2018, we reclassified net after-tax unrealized gains on equity securities from accumulated other comprehensive income to retained earnings.

In adopting ASU 2018-02, we reclassified the stranded deferred income tax effects arising from the reduction in the U.S. statutory income tax rate under the U.S. Tax Cuts and Jobs Act that were included in accumulated other comprehensive income as of January 1, 2018 to retained earnings.

In adopting ASC 606, we recorded increases to certain assets and other liabilities, with the cumulative net effect recorded to retained earnings. Prior to January 1, 2018, we recognized revenues from the sales of fractional ownership interests in aircraft over the term of the related management services agreements, as the transfers of the ownership interests were inseparable from the management services agreements. These agreements also include provisions that require us to repurchase the fractional interest at fair market value at contract termination or upon the customer's request following the end of a minimum commitment period. ASC 606 provides that such contracts are subject to accounting guidance for lease contracts. The principal effects of this re-characterization were to increase equipment held for lease and aircraft repurchase liabilities and unearned lease revenues by approximately \$3.5 billion.

In June 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-13 "Financial Instruments—Credit Losses," which provides for the recognition and measurement at the reporting date of all expected credit losses for financial assets held at amortized cost and for available-for-sale debt securities. Currently, credit losses are recognized and measured when such losses become probable based on the prevailing facts and circumstances. ASU 2016-13 is effective for reporting periods beginning after December 15, 2019. We are evaluating the effect this standard will have on our Consolidated Financial Statements.

In January 2017, the FASB issued ASU 2017-04 "Simplifying the Test for Goodwill Impairment." ASU 2017-04 eliminates the requirement to determine the implied value of goodwill in measuring an impairment loss. Upon adoption of ASU 2017-04, the measurement of a goodwill impairment will represent the excess of the reporting unit's carrying value over its fair value and will be limited to the carrying value of goodwill. ASU 2017-04 is effective for goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted.

In August 2018, the FASB issued ASU 2018-12 "Targeted Improvements to the Accounting for Long-Duration Contracts." ASU 2018-12 requires periodic reassessment of actuarial and discount rate assumptions used to value policyholder liabilities and deferred acquisition costs arising from the issuance of long-duration insurance and reinsurance contracts, with the effects of changes in cash flow assumptions reflected in earnings and the effects of changes in discount rate assumptions reflected in other comprehensive income. Currently, the actuarial and discount rate assumptions are set at the contract inception date and not subsequently changed, except under limited circumstances. ASU 2018-12 requires new disclosures and is effective for fiscal years beginning after December 15, 2020, with early adoption permitted. We are evaluating the effect this standard will have on our Consolidated Financial Statements.

Note 3. Investments in fixed maturity securities

Investments in fixed maturity securities as of June 30, 2019 and December 31, 2018 are summarized by type below (in millions).

	Ar	Amortized Cost		Unrealized Gains		nrealized Losses	Fair Value
June 30, 2019							
U.S. Treasury, U.S. government corporations and agencies	\$	4,542	\$	46	\$	(4)	\$ 4,584
States, municipalities and political subdivisions		154		6		_	160
Foreign governments		7,903		76		(14)	7,965
Corporate bonds		6,231		516		(3)	6,744
Mortgage-backed securities		444		67		(2)	509
	\$	19,274	\$	711	\$	(23)	\$ 19,962
December 31, 2018							
U.S. Treasury, U.S. government corporations and agencies	\$	4,223	\$	22	\$	(22)	\$ 4,223
States, municipalities and political subdivisions		182		7			189
Foreign governments		7,480		50		(28)	7,502
Corporate bonds		7,055		408		(23)	7,440
Mortgage-backed securities		487		59		(2)	544
	\$	19,427	\$	546	\$	(75)	\$ 19,898

Investments in foreign governments include securities issued by national and provincial government entities as well as instruments that are unconditionally guaranteed by such entities. As of June 30, 2019, approximately 88% of our foreign government holdings were rated AA or higher by at least one of the major rating agencies.

The amortized cost and estimated fair value of fixed maturity securities at June 30, 2019 are summarized below by contractual maturity dates. Amounts are in millions. Actual maturities may differ from contractual maturities due to early call or prepayment rights held by issuers.

	e in one	yea	e after one or through ve years	year	after five s through n years	ıe after n years	ba	rtgage- icked urities	Total
Amortized cost	\$ 7,067	\$	10,978	\$	348	\$ 437	\$	444	\$ 19,274
Fair value	7.128		11.125		407	793		509	19,962

Note 4. Investments in equity securities

Investments in equity securities as of June 30, 2019 and December 31, 2018 are summarized based on the primary industry of the investee in the table below (in millions).

	Cos	st Basis	Net Unrealized Gains			Fair Value
June 30, 2019*						
Banks, insurance and finance	\$	45,796	\$	50,659	\$	96,455
Consumer products		39,008		35,064		74,072
Commercial, industrial and other		17,816		12,173		29,989
	\$	102,620	\$	97,896	\$	200,516

^{*} Approximately 69% of the aggregate fair value was concentrated in five companies (American Express Company – \$18.7 billion; Apple Inc. – \$50.5 billion; Bank of America Corporation – \$27.6 billion; The Coca-Cola Company – \$20.4 billion and Wells Fargo & Company – \$20.5 billion).

Note 4. Investments in equity securities (Continued)

C	Net Unrealized Cost Basis Gains				Fair Value
\$	44,332	\$	38,260	\$	82,592
	38,783		22,838		61,621
	19,752		8,792		28,544
\$	102,867	\$	69,890	\$	172,757
		38,783 19,752	Cost Basis \$ 44,332 \$ 38,783 19,752	Cost Basis Unrealized Gains \$ 44,332 \$ 38,260 38,783 22,838 19,752 8,792	Cost Basis Unrealized Gains \$ 44,332 \$ 38,260 \$ 38,783 22,838 19,752 8,792

^{*} Approximately 68% of the aggregate fair value was concentrated in five companies (American Express Company – \$14.5 billion; Apple Inc. – \$40.3 billion; Bank of America Corporation – \$22.6 billion; The Coca-Cola Company – \$18.9 billion and Wells Fargo & Company – \$20.7 billion).

Note 5. Equity method investments

Berkshire and its subsidiaries hold investments in certain businesses that are accounted for pursuant to the equity method. Currently, the most significant of these is our investment in the common stock of The Kraft Heinz Company ("Kraft Heinz"). Kraft Heinz is one of the world's largest manufacturers and marketers of food and beverage products, including condiments and sauces, cheese and dairy, meals, meats, refreshment beverages, coffee and other grocery products.

Berkshire currently owns 325,442,152 shares of Kraft Heinz common stock representing 26.7% of the outstanding shares. Shares of Kraft Heinz common stock are publicly-traded and the fair value of our investment was approximately \$10.1 billion at June 30, 2019 and \$14.0 billion at December 31, 2018. The carrying value of our investment was approximately \$13.5 billion at June 30, 2019 and \$13.8 billion at December 31, 2018.

In June 2019, Kraft Heinz filed its 2018 Form 10-K with the Securities and Exchange Commission, which reflected the restatement of financial statements of prior periods. The net effect of these restatements produced a \$34 million reduction to the carrying value of our investment.

As of August 3, 2019, Kraft Heinz's financial statements for the first and second quarters of 2019 were not yet available to Berkshire. Accordingly, Berkshire's Consolidated Financial Statements for the second quarter and first six months of 2019 exclude its share of the earnings and other comprehensive income of Kraft Heinz for those periods. Berkshire intends to record its share of Kraft Heinz's earnings and other comprehensive income for the first six months of 2019 during the period that such information becomes available. During the six-month period ending June 30, 2018, we recorded equity method earnings of \$467 million. Dividends received from Kraft Heinz were \$260 million and \$407 million in the first six months of 2019 and 2018, respectively, which we recorded as reductions of our investment.

We evaluated our investment in Kraft Heinz for impairment as of June 30, 2019. Based on the available facts and information, the length of time that fair value was less than carrying value and our ability and intent to hold the investment until recovery, we concluded that recognition of an impairment loss in earnings at June 30, 2019 was not required. However, we will continue to monitor this investment and it is possible that an impairment loss in earnings will be recorded in future periods based on changes in facts and circumstances or intentions.

Summarized consolidated financial information of Kraft Heinz as of December 29, 2018 and for the second quarter and first six months of 2018 follows (in millions).

December 29,

			2018
		\$	103,461
			51,683
Second Quarter		First S	Six Months
2018			2018
\$	6,690	\$	12,994
\$	754	\$	1,757
		\$ 6,690	Second Quarter First S 2018 \$ \$ 6,690

Note 5. Equity method investments (Continued)

Other investments accounted for pursuant to the equity method include our investments in Berkadia Commercial Mortgage LLC ("Berkadia"), Pilot Travel Centers LLC, d/b/a Pilot Flying J ("Pilot Flying J"), and Electric Transmission Texas, LLC ("ETT"). The carrying value of our investments in these entities was approximately \$3.7 billion as of June 30, 2019 and \$3.5 billion as of December 31, 2018. Our equity method earnings in these entities in the first six months were \$314 million in 2019 and \$261 million in 2018. Additional information concerning these investments follows.

We own a 50% interest in Berkadia, with Jefferies Financial Group Inc. ("Jefferies") owning the other 50% interest. Berkadia is a servicer of commercial real estate loans in the U.S., performing primary, master and special servicing functions for U.S. government agency programs, commercial mortgage-backed securities transactions, banks, insurance companies and other financial institutions. A source of funding for Berkadia's operations is through its issuance of commercial paper, which is currently limited to \$1.5 billion. On June 30, 2019, Berkadia's commercial paper outstanding was \$1.47 billion. The commercial paper is supported by a surety policy issued by a Berkshire insurance subsidiary. Jefferies is obligated to indemnify us for one-half of any losses incurred under the policy. In addition, a Berkshire Hathaway Energy Company subsidiary owns a 50% interest in ETT, an owner and operator of electric transmission assets in the Electric Reliability Council of Texas footprint. American Electric Power owns the other 50% interest.

On October 3, 2017, we entered into an investment agreement and an equity purchase agreement whereby we acquired a 38.6% interest in Pilot Flying J, headquartered in Knoxville, Tennessee. Pilot Flying J is one of the largest operators of travel centers in North America, with more than 28,000 team members, 750 locations across the U.S. and Canada, and nearly \$30 billion in annual revenues. The Haslam family currently owns a 50.1% interest in Pilot Flying J and a third party owns the remaining 11.3% interest. We also entered into an agreement to acquire in 2023 an additional 41.4% interest in Pilot Flying J with the Haslam family retaining a 20% interest. As a result, Berkshire will become the majority owner of Pilot Flying J in 2023.

Note 6. Investment gains/losses

Investment gains/losses in the second quarter and first six months of 2019 and 2018 are summarized as follows (in millions).

	Second Quarter			First Six	ix Months		
		2019		2018	2019		2018
Equity securities:							
Unrealized investment gains (losses) on securities held at the end of the period	\$	9,827	\$	5,585	\$ 29,192	\$	(2,146)
Investment gains (losses) during the period		5		357	194		41
		9,832		5,942	29,386		(2,105)
Fixed maturity securities:							
Gross realized gains		7		48	12		407
Gross realized losses		(6)		(4)	(16)		(142)
Other		2		4	5		21
	\$	9,835	\$	5,990	\$ 29,387	\$	(1,819)

Prior to 2018, we recognized investment gains and losses in earnings when we sold equity securities based on the difference between the proceeds from the sale and the cost of the securities and also when we recognized other-than-temporary impairment losses. Beginning in 2018, equity securities gains and losses include unrealized gains and losses from changes in fair values during the period on equity securities we still own. Prior to 2018, we recorded the changes in unrealized gains and losses on our investments in equity securities in other comprehensive income.

In the first six months of 2019 and 2018, as reflected in the Consolidated Statements of Cash Flows, we received proceeds of approximately \$4.5 billion and \$9.0 billion, respectively, from sales of equity securities. In the preceding table, investment gains/losses on equity securities sold in each period reflect the difference between proceeds from sales and the fair value of the equity security sold at the beginning of the period or the purchase date, if later. Our taxable gains on equity securities sold are generally the difference between the proceeds from sales and original cost. Taxable gains in the second quarter and first six months of 2019 were \$832 million and \$1,350 million, respectively, and \$629 million and \$1,359 million, respectively, in the second quarter and first six months of 2018.

Note 7. Loans and finance receivables

Loans and finance receivables are summarized as follows (in millions).

	June 30, 2019		,	
Loans and finance receivables before allowances and discounts	\$	17,135	\$	16,622
Allowances for uncollectible loans		(177)		(177)
Unamortized acquisition discounts		(151)		(165)
	\$	16,807	\$	16,280

Loans and finance receivables are principally installment loans originated or acquired by our manufactured housing business. Provisions for loan losses for the first six months were \$66 million in 2019 and \$70 million in 2018. Loan charge-offs, net of recoveries in the first six months, were \$66 million in 2019 and \$70 million in 2018. At June 30, 2019, approximately 98% of the manufactured housing loan balances were evaluated collectively for impairment, with the remainder evaluated individually. As part of the evaluation process, credit quality indicators are reviewed and loans are designated as performing or non-performing. At June 30, 2019, we considered approximately 99% of the loan balances to be performing and approximately 96% of the loan balances to be current as to payment status.

Additionally, during 2018, an insurance subsidiary entered into an agreement with Seritage Growth Properties to provide a \$2.0 billion term loan facility, which matures on July 31, 2023. As of June 30, 2019 and December 31, 2018, the outstanding loans under the facility were approximately \$1.6 billion.

Note 8. Other receivables

Other receivables of insurance and other businesses are comprised of the following (in millions).

	J	June 30, 2019	De	ecember 31, 2018
Insurance premiums receivable	\$	13,762	\$	12,452
Reinsurance recoverable on unpaid losses		3,149		3,060
Trade receivables		13,180		12,617
Other		4,224		3,823
Allowances for uncollectible accounts		(374)		(388)
	\$	33,941	\$	31,564

Receivables of railroad and utilities and energy businesses are comprised of the following (in millions).

	June 30, 2019	December 31, 2018
Trade receivables	\$ 3,448	\$ 3,433
Other	320	362
Allowances for uncollectible accounts	(127)	(129)
	\$ 3,641	\$ 3,666

Trade receivables include unbilled revenue of \$718 million and \$554 million as of June 30, 2019 and December 31, 2018, respectively, attributable to the regulated utility businesses.

Note 9. Inventories

Inventories are comprised of the following (in millions).

	J	June 30, 2019		cember 31, 2018
Raw materials	\$	4,383	\$	4,182
Work in process and other		2,727		2,625
Finished manufactured goods		4,708		4,541
Goods acquired for resale		8,016		7,721
	\$	19,834	\$	19,069

Note 10. Property, plant and equipment

A summary of property, plant and equipment of our insurance and other businesses follows (in millions).

	 June 30, 2019		cember 31, 2018
Land	\$ 2,553	\$	2,536
Buildings and improvements	10,477		9,959
Machinery and equipment	22,965		22,574
Furniture, fixtures and other	 5,221		4,758
	41,216		39,827
Accumulated depreciation	(20,012)		(19,199)
	\$ 21,204	\$	20,628

A summary of property, plant and equipment of railroad and utilities and energy businesses follows (in millions). The utility generation, transmission and distribution systems and interstate natural gas pipeline assets are owned by regulated public utility and natural gas pipeline subsidiaries.

		June 30, 2019		,		cember 31, 2018
Railroad:						
Land, track structure and other roadway	\$	60,795	\$	59,509		
Locomotives, freight cars and other equipment		13,264		13,016		
Construction in progress		723		664		
		74,782		73,189		
Accumulated depreciation		(11,206)		(10,004)		
		63,576		63,185		
Utilities and energy:						
Utility generation, transmission and distribution systems		78,087		77,288		
Interstate natural gas pipeline assets		7,571		7,524		
Independent power plants and other assets		8,587		8,324		
Construction in progress		4,331		3,110		
		98,576		96,246		
Accumulated depreciation		(28,637)		(27,651)		
		69,939		68,595		
	\$	133,515	\$	131,780		

Note 10. Property, plant and equipment (Continued)

Depreciation expense for the first six months of 2019 and 2018 is summarized below (in millions).

	 First Six Months			
	2019		2018	
Insurance and other	\$ 1,092	\$	1,080	
Railroad, utilities and energy	2,544		2,444	
	\$ 3,636	\$	3,524	

Note 11. Equipment held for lease

Equipment held for lease includes railcars, aircraft, over-the-road trailers, intermodal tank containers, cranes, storage units and furniture. Equipment held for lease is summarized below (in millions).

	 June 30, 2019	December 31, 2018		
Railcars	\$ 9,126	\$	8,862	
Aircraft	7,693		7,376	
Other equipment held for lease	 4,676		4,379	
	21,495		20,617	
Accumulated depreciation	 (6,754)		(6,319)	
	\$ 14,741	\$	14,298	

Depreciation expense for equipment held for lease in the first six months was \$579 million in 2019 and \$543 million in 2018. Operating lease revenues by type for the second quarter and first six months of 2019 were as follows (in millions).

		Fixed lease		ariable lease			
		revenue		revenue revenue		revenue	Total
Second quarter	\$	1,118	\$	373	\$ 1,491		
First six months		2,192		735	2,927		

Future operating lease rentals to be received on assets we lease to others were as follows (in millions).

	2019	2020	2021	2022	2023	Thereafter	Total
As of June 30, 2019	\$ 1335	\$ 2.057	\$ 1.488	\$ 987	\$ 608	\$ 482	\$ 6.957

Note 12. Leases

We are party to contracts where we lease property from others. As a lessee, we primarily lease office and operating facilities, locomotives, freight cars, energy generation facilities and transmission assets. Operating lease right-of-use assets and lease liabilities included in our June 30, 2019 Consolidated Balance Sheet were approximately \$6.1 billion and \$5.9 billion, respectively. Such amounts were included in other assets and accounts payable, accruals and other liabilities in our Consolidated Balance Sheet. The weighted average term of these leases was approximately 7.4 years and the weighted average discount rate used to measure lease liabilities was approximately 3.9%. A summary of our remaining operating lease payments as of June 30, 2019 and December 31, 2018 follows (in millions).

								Amount	
							Total lease	representing	Lease
	2019	2020	2021	2022	2023	Thereafter	payments	<u>interest</u>	liabilities
June 30, 2019	\$ 599	\$ 1,346	\$ 1,123	\$ 885	\$ 708	\$ 2,289	\$ 6,950	\$ (1,016)	\$ 5,934
December 31 2018	1 310	1 268	1 048	820	658	2 079	7 183		

Components of operating lease costs for the second quarter and first six months of 2019 by type were as follows (in millions).

	 erating ase cost	-	rt-term se cost	 ariable ise cost	Sublease income	-	Total ase cost
Second quarter	\$ 367	\$	35	\$ 70	\$ (6)	\$	466
First six months	728		79	139	(12)		934

Note 13. Goodwill and other intangible assets

Reconciliations of the changes in the carrying value of goodwill for the first six months of 2019 and for the year ended December 31, 2018 follows (in millions).

	June 30, 2019	 December 31, 2018
Balance at beginning of year	\$ 81,025	\$ 81,258
Acquisitions of businesses	216	376
Other, including foreign currency translation	28	(609)
Balance at end of period	\$ 81,269	\$ 81,025

Our other intangible assets and related accumulated amortization are summarized as follows (in millions).

	June 30, 2019					December 31, 2018				
	Gross carrying amount		Accumulated amortization					cumulated ortization		
Insurance and other	\$	40,613	\$	9,581	\$	40,493	\$	8,994		
Railroad, utilities and energy		1,011		385		1,011		362		
	\$	41,624	\$	9,966	\$	41,504	\$	9,356		
Trademarks and trade names	\$	5,368	\$	763	\$	5,368	\$	750		
Patents and technology		4,502		2,927		4,446		2,790		
Customer relationships		28,449		4,990		28,375		4,573		
Other		3,305		1,286		3,315		1,243		
	\$	41,624	\$	9,966	\$	41,504	\$	9,356		

Intangible asset amortization expense in the first six months was \$658 million in 2019 and \$707 million in 2018. Intangible assets with indefinite lives as of June 30, 2019 and December 31, 2018 were \$18.9 billion and primarily related to certain customer relationships and trademarks and trade names.

Note 14. Derivative contracts

We are party to derivative contracts through certain of our subsidiaries. Currently, the most significant derivative contracts consist of equity index put option contracts. The liabilities and related notional values of these contracts follows (in millions).

		Notional
	Liabilities	Value
June 30, 2019	\$ 1,470	\$ 24,524
December 31, 2018	2,452	26,759

Notional value represents the aggregate undiscounted amounts payable assuming that the value of each index is zero at each contract's expiration date. Certain of these contracts are denominated in foreign currencies. Notional amounts are based on the foreign currency exchange rates as of each balance sheet date. Pre-tax gains from equity index put option contracts were \$213 million and \$983 million in the second quarter and first six months of 2019, respectively, and \$372 million and \$166 million in the second quarter and first six months of 2018, respectively.

The equity index put option contracts are European style options written prior to March 2008 on four major equity indexes. The remaining contracts expire between August 2019 and October 2025. The weighted average life of unexpired contracts at June 30, 2019 was approximately 1.5 years. Contracts with notional values of \$10.0 billion will expire over the remainder of 2019. Future payments, if any, under any given contract will be required if the prevailing index value is below the contract strike price at the expiration date. We received aggregate premiums of \$3.8 billion on the contract inception dates with respect to unexpired contracts at June 30, 2019 and we have no counterparty credit risk. The aggregate intrinsic value (the undiscounted liability assuming the contracts are settled based on the index values and foreign currency exchange rates as of the balance sheet date) was \$791 million at June 30, 2019 and \$1,653 million at December 31, 2018. These contracts may not be unilaterally terminated or fully settled before the expiration dates and the ultimate amount of cash basis gains or losses on these contracts will not be determined until the contract expiration dates.

A limited number of our equity index put option contracts contain collateral posting requirements with respect to changes in the fair value or intrinsic value of the contracts and/or a downgrade of Berkshire's credit ratings. As of June 30, 2019, we did not have any collateral posting requirements. If Berkshire's credit ratings (currently AA from Standard & Poor's and Aa2 from Moody's) are downgraded below either A- by Standard & Poor's or A3 by Moody's, collateral of up to \$1.1 billion could be required to be posted.

Our regulated utility subsidiaries are exposed to variations in the prices of fuel required to generate electricity, wholesale electricity purchased and sold and natural gas supplied for customers. We may use forward purchases and sales, futures, swaps and options to manage a portion of these price risks. Most of the net derivative contract assets or liabilities of our regulated utilities are probable of recovery through rates and are offset by regulatory liabilities or assets. Derivative contract assets are included in other assets and were \$150 million as of June 30, 2019 and \$172 million as of December 31, 2018. Derivative contract liabilities are included in accounts payable, accruals and other liabilities and were \$120 million as of June 30, 2019 and \$111 million as of December 31, 2018.

Note 15. Supplemental cash flow information

A summary of supplemental cash flow information is presented in the following table (in millions).

	 First Six Months				
	2019	2018			
Cash paid during the period for:					
Income taxes	\$ 1,199	\$	2,358		
Interest:					
Insurance and other	540		646		
Railroad, utilities and energy	1,370		1,402		
Non-cash investing and financing activities:					
Liabilities assumed in connection with business acquisitions	94		76		
Right-of-use assets obtained in exchange for new operating lease liabilities	361		_		

Note 16. Unpaid losses and loss adjustment expenses

Our liabilities for unpaid losses and loss adjustment expenses (also referred to as "claim liabilities") under short-duration property and casualty insurance and reinsurance contracts are based upon estimates of the ultimate claim costs associated with claim occurrences on or before the balance sheet date and include estimates for incurred-but-not-reported ("IBNR") claims. Reconciliations of the changes in claim liabilities, excluding liabilities under retroactive reinsurance contracts (see Note 17), for each of the six months ending June 30, 2019 and 2018 follow (in millions).

	2019	2018
Balances – beginning of year:		
Gross liabilities	\$ 68,458	\$ 61,122
Reinsurance recoverable on unpaid losses	(3,060)	(3,201)
Net liabilities	65,398	57,921
Incurred losses and loss adjustment expenses:		
Current accident year events	20,127	18,905
Prior accident years' events	71	(1,054)
Total incurred losses and loss adjustment expenses	20,198	17,851
Paid losses and loss adjustment expenses:		
Current accident year events	(7,724)) (7,332)
Prior accident years' events	(10,243)	(8,581)
Total payments	(17,967)	(15,913)
Foreign currency translation adjustment	3	(111)
Balances – June 30:		
Net liabilities	67,632	59,748
Reinsurance recoverable on unpaid losses	3,149	2,989
Gross liabilities	\$ 70,781	\$ 62,737

Incurred losses and loss adjustment expenses in the first six months of 2019 included a net increase of estimated ultimate liabilities for prior accident years of \$71 million compared to a net decrease of \$1,054 million in the first six months of 2018. Increases and decreases in estimated ultimate liabilities produce corresponding decreases and increases to pre-tax earnings. Such amounts as percentages of net liabilities at the beginning of the year were 0.1% in 2019 and 1.8% in 2018.

In the first six months of 2019, we lowered estimated ultimate liabilities of primary insurance for prior years' events by \$198 million, compared to \$768 million in 2018. Reductions of estimated liabilities in the first six months of 2019 were less than the first six months of 2018 for private passenger automobile and medical malpractice insurance. In addition, we increased estimated liabilities in the first six months of 2019 for legacy casualty exposures and other commercial insurance business.

In the first six months of 2019, we increased estimated ultimate property and casualty reinsurance liabilities for prior years' events by \$269 million, compared to a decrease of \$286 million in the first six months of 2018. The increases in prior years' incurred losses in 2019 derived primarily from casualty claims, and to a lesser degree property claims.

Note 17. Retroactive reinsurance contracts

Retroactive reinsurance policies provide indemnification of losses and loss adjustment expenses of short-duration insurance contracts with respect to underlying loss events that occurred prior to the contract inception date. Claims payments may commence immediately after the contract date or, if applicable, once a contractual retention amount has been reached. Reconciliations of the changes in estimated liabilities for retroactive reinsurance unpaid losses and loss adjustment expenses ("claim liabilities") and related deferred charge reinsurance assumed assets for each of the six months ending June 30, 2019 and 2018 follows (in millions).

	2019					20	018					
	Unpaid losses and loss adjustment expenses		and loss adjustment		and loss adjustment		and loss charges adjustment reinsurance		Unpaid losses and loss adjustment expenses		re	Deferred charges sinsurance assumed
Balances – beginning of year:	\$	41,834	\$	(14,104)	\$	42,937	\$	(15,278)				
Incurred losses and loss adjustment expenses												
Current year contracts		175		(82)		_		_				
Prior years' contracts				552		(35)		548				
Total		175		470		(35)		548				
Paid losses and loss adjustment expenses		(460)		_		(787)						
Balances – June 30:	\$	41,549	\$	(13,634)	\$	42,115	\$	(14,730)				
Incurred losses and loss adjustment expenses, net of deferred charges	\$	645			\$	513						

In the preceding table, classifications of incurred losses and loss adjustment expenses are based on the inception dates of the contracts. Incurred losses and loss adjustment expenses in the first six months related to contracts written in prior years were \$552 million in 2019 and \$513 million in 2018. Such losses reflected the periodic amortization of deferred charge assets and the effects of changes in the timing and amount of ultimate claim liabilities.

In 2017, National Indemnity Company ("NICO") entered into a contract with various subsidiaries of American International Group, Inc. (collectively, "AIG"). Our estimated ultimate claim liabilities with respect to the AIG contract at both June 30, 2019 and December 31, 2018 were \$18.2 billion. Deferred charge assets related to the AIG contract were approximately \$6.6 billion at June 30, 2019 and \$6.9 billion at December 31, 2018.

Note 18. Notes payable and other borrowings

Notes payable and other borrowings are summarized below (in millions). The weighted average interest rates and maturity date ranges shown in the following tables are based on borrowings as of June 30, 2019.

	Weighted Average Interest Rate	June 30, 2019	December 31, 2018
Insurance and other:			
Berkshire Hathaway Inc. ("Berkshire"):			
U.S. Dollar denominated due 2019-2047	3.1%	\$ 9,070	\$ 9,065
Euro denominated due 2020-2035	1.1%	7,746	7,806
Berkshire Hathaway Finance Corporation ("BHFC"):			
U.S. Dollar denominated due 2019-2049	3.1%	9,928	10,650
Great Britain Pound denominated due 2039-2059	2.5%	2,179	_
Other subsidiary borrowings due 2019-2045	4.0%	5,435	5,597
Subsidiary short-term borrowings	4.3%	1,667	1,857
		\$ 36,025	\$ 34,975

Note 18. Notes payable and other borrowings (Continued)

The carrying value of Berkshire's Euro denominated senior notes (€6.85 billion par) reflects the Euro/U.S. Dollar exchange rate as of the balance sheet date. The effects of changes in foreign currency exchange rates during the period are recorded in earnings as a component of selling, general and administrative expenses. Changes in the Euro/U.S. Dollar exchange rate resulted in pre-tax gains of \$64 million in the first six months of 2019 and \$219 million in the first six months of 2018. The carrying values of the Euro denominated senior notes reflected corresponding decreases with respect to these gains.

Borrowings of BHFC, a wholly owned finance subsidiary of Berkshire, consist of senior unsecured notes used to fund manufactured housing loans originated or acquired and equipment held for lease of certain subsidiaries. In January 2019, BHFC issued \$2.0 billion of 4.25% senior notes due in 2049 and repaid \$2.7 billion of maturing notes. In June 2019, BHFC also issued £1.75 billion of senior notes consisting of £1.0 billion 2.375% senior notes due in 2039 and £750 million 2.625% senior notes due in 2059. The carrying value of BHFC's GBP borrowings reflect the GBP/U.S. Dollar exchange rate, with the effects of the changes recorded in earnings as a component of selling, general and administrative expenses. BHFC borrowings are fully and unconditionally guaranteed by Berkshire. In addition to BHFC borrowings, at June 30, 2019, Berkshire guaranteed approximately \$1.5 billion of other subsidiary borrowings. Generally, Berkshire's guarantee of a subsidiary's debt obligation is an absolute, unconditional and irrevocable guarantee for the full and prompt payment when due of all payment obligations.

	Weighted Average Interest Rate	June 30, 2019	D	ecember 31, 2018
Railroad, utilities and energy:				
Berkshire Hathaway Energy Company ("BHE") and subsidiaries:				
BHE senior unsecured debt due 2020-2049	4.6% \$	8,579	\$	8,577
Subsidiary and other debt due 2019-2064	4.5%	29,517		28,196
Short-term borrowings	3.4%	2,594		2,516
Burlington Northern Santa Fe and subsidiaries due 2019-2097	4.7%	23,192		23,226
	\$	63,882	\$	62,515

BHE subsidiary debt represents amounts issued pursuant to separate financing agreements. Substantially all of the assets of certain BHE subsidiaries are, or may be, pledged or encumbered to support or otherwise secure debt. These borrowing arrangements generally contain various covenants, including covenants which pertain to leverage ratios, interest coverage ratios and/or debt service coverage ratios. During the first six months of 2019, BHE and its subsidiaries issued approximately \$3.4 billion of long-term debt. The debt issued in 2019 has maturity dates ranging from 2029 to 2050 and a weighted average interest rate of 3.9%. Proceeds from these debt issuances were used to repay debt, to fund capital expenditures and for general corporate purposes.

BNSF's borrowings are primarily senior unsecured debentures. In July 2019, BNSF issued \$825 million of 3.55% senior unsecured debentures due in 2050. As of June 30, 2019, BNSF, BHE and their subsidiaries were in compliance with all applicable debt covenants. Berkshire does not guarantee any debt, borrowings or lines of credit of BNSF, BHE or their subsidiaries.

As of June 30, 2019, our subsidiaries had unused lines of credit and commercial paper capacity aggregating approximately \$7.5 billion to support short-term borrowing programs and provide additional liquidity. Such unused lines of credit included approximately \$5.7 billion related to BHE and its subsidiaries.

Note 19. Fair value measurements

Our financial assets and liabilities are summarized below as of June 30, 2019 and December 31, 2018, with fair values shown according to the fair value hierarchy (in millions). The carrying values of cash and cash equivalents, U.S. Treasury Bills, receivables and accounts payable, accruals and other liabilities are considered to be reasonable estimates of their fair values.

	Carrying Value Fair Value			Quoted Prices (Level 1)		Significant Other Observable Inputs (Level 2)		Uno	gnificant observable Inputs Level 3)	
June 30, 2019										
Investments in fixed maturity securities:										
U.S. Treasury, U.S. government corporations										
and agencies	\$	4,584	\$	4,584	\$	2,972	\$	1,612	\$	_
States, municipalities and political subdivisions		160		160		_		160		_
Foreign governments		7,965		7,965		5,788		2,177		_
Corporate bonds		6,744		6,744		_		6,741		3
Mortgage-backed securities		509		509		_		509		_
Investments in equity securities		200,516		200,516		200,165		50		301
Investment in Kraft Heinz common stock		13,522		10,102		10,102		_		_
Loans and finance receivables		16,807		16,969		_		1,697		15,272
Derivative contract assets (1)		150		150		_		19		131
Derivative contract liabilities:										
Railroad, utilities and energy (1)		120		120		4		94		22
Equity index put options		1,470		1,470		_		_		1,470
Notes payable and other borrowings:										
Insurance and other		36,025		38,453		_		38,428		25
Railroad, utilities and energy		63,882		72,862		_		72,862		_
<u>December 31, 2018</u>										
Investments in fixed maturity securities:										
U.S. Treasury, U.S. government corporations										
and agencies	\$	4,223	\$	4,223	\$	2,933	\$	1,290	\$	_
States, municipalities and political subdivisions		189		189		_		189		_
Foreign governments		7,502		7,502		5,417		2,085		
Corporate bonds		7,440		7,440		_		7,434		6
Mortgage-backed securities		544		544		_		544		_
Investments in equity securities		172,757		172,757		172,253		203		301
Investment in Kraft Heinz common stock		13,813		14,007		14,007		_		_
Loans and finance receivables		16,280		16,377		_		1,531		14,846
Derivative contract assets (1)		172		172		2		52		118
Derivative contract liabilities:										
Railroad, utilities and energy (1)		111		111		1		101		9
Equity index put options		2,452		2,452		_		_		2,452
Notes payable and other borrowings:										
Insurance and other		34,975		35,361		_		35,335		26
Railroad, utilities and energy		62,515		66,422		_		66,422		_

⁽¹⁾ Assets are included in other assets and liabilities are included in accounts payable, accruals and other liabilities.

Note 19. Fair value measurements (Continued)

The fair values of substantially all of our financial instruments were measured using market or income approaches. The hierarchy for measuring fair value consists of Levels 1 through 3, which are described below.

<u>Level 1</u> – Inputs represent unadjusted quoted prices for identical assets or liabilities exchanged in active markets.

<u>Level 2</u> – Inputs include directly or indirectly observable inputs (other than Level 1 inputs) such as quoted prices for similar assets or liabilities exchanged in active or inactive markets; quoted prices for identical assets or liabilities exchanged in inactive markets; other inputs that may be considered in fair value determinations of the assets or liabilities, such as interest rates and yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates; and inputs that are derived principally from or corroborated by observable market data by correlation or other means. Pricing evaluations generally reflect discounted expected future cash flows, which incorporate yield curves for instruments with similar characteristics, such as credit ratings, estimated durations and yields for other instruments of the issuer or entities in the same industry sector.

<u>Level 3</u> – Inputs include unobservable inputs used in the measurement of assets and liabilities. Management is required to use its own assumptions regarding unobservable inputs because there is little, if any, market activity in the assets or liabilities and it may be unable to corroborate the related observable inputs. Unobservable inputs require management to make certain projections and assumptions about the information that would be used by market participants in valuing assets or liabilities.

Reconciliations of significant assets and liabilities measured and carried at fair value on a recurring basis with the use of significant unobservable inputs (Level 3) for the six months ended June 30, 2019 and 2018 follow (in millions).

		Gai	ns (losses) include				
	Balance – beginning of year	Earnings	Other comprehensive income	Regulatory assets and liabilities	Acquisitions, dispositions and settlements	Transfers into/out of Level 3	Balance – June 30
Net derivative contract assets (liabilities):							
2019	\$ (2,343)	\$ 1,134	\$ (1)	\$ (23)	\$ (128)	\$ —	\$ (1,361)
2018	(2,069)	256	_	(14)	(79)	_	(1,906)

Quantitative information as of June 30, 2019, with respect to assets and liabilities measured and carried at fair value on a recurring basis with the use of significant unobservable inputs (Level 3) follows (in millions).

	 Fair Value	Principal Valuation Techniques	Unobservable Inputs	Weighted Average
Derivative contract liabilities – Equity index put options	\$ 1,470	Option pricing model	Volatility	16%

Our equity index put option contracts are illiquid and contain contract terms that are not standard in derivatives markets. For example, we are not required to post collateral under most of our contracts and certain of the contracts have relatively long durations. For these and other reasons, we classified these contracts as Level 3 measurements. The methods we use to value these contracts are those that we believe market participants would use in determining exchange prices with respect to our contracts.

We value equity index put option contracts based on the Black-Scholes option valuation model. Inputs to this model include index price, contract duration and dividend and interest rate inputs (including a Berkshire non-performance input) which are observable. However, we believe that the valuation of long-duration options using any model is inherently subjective and, given the lack of observable transactions and prices, acceptable values may be subject to wide ranges. Volatility inputs represent our expectations, which consider the remaining duration of each contract and assume that the contracts will remain outstanding until the expiration dates. Increases or decreases in the volatility inputs will produce increases or decreases in the fair values of the liabilities.

Note 20. Common stock

Changes in Berkshire's issued, treasury and outstanding common stock during the first six months of 2019 are shown in the table below. In addition to our common stock, 1,000,000 shares of preferred stock are authorized, but none are issued.

		s A, \$5 Par 00 shares au			Class B, \$0.0033 Par Val (3,225,000,000 shares author				
	Issued	Treasury	Outstanding	Issued	Treasury	Outstanding			
Balance December 31, 2018	742,213	(12,897)	729,316	1,373,558,983	(6,138,909)	1,367,420,074			
Conversions of Class A common stock to Class B common stock and exercises of replacement									
stock options	(5,919)	_	(5,919)	9,144,369	_	9,144,369			
Treasury stock acquired		(1,539)	(1,539)		(8,285,970)	(8,285,970)			
Balance at June 30, 2019	736,294	(14,436)	721,858	1,382,703,352	(14,424,879)	1,368,278,473			

Each Class A common share is entitled to one vote per share. Class B common stock possesses dividend and distribution rights equal to one-fifteen-hundredth (1/1,500) of such rights of Class A common stock. Each Class B common share possesses voting rights equivalent to one-ten-thousandth (1/10,000) of the voting rights of a Class A share. Unless otherwise required under Delaware General Corporation Law, Class A and Class B common shares vote as a single class. Each share of Class A common stock is convertible, at the option of the holder, into 1,500 shares of Class B common stock. Class B common stock is not convertible into Class A common stock. On an equivalent Class A common stock basis, there were 1,634,044 shares outstanding as of June 30, 2019 and 1,640,929 shares outstanding as of December 31, 2018.

Since we have two classes of common stock, we provide earnings per share data on the Consolidated Statements of Earnings for average equivalent Class A shares outstanding and average equivalent Class B shares outstanding. Class B shares are economically equivalent to one-fifteen-hundredth (1/1,500) of a Class A share. Average equivalent Class A shares outstanding represents average Class A shares outstanding plus one-fifteen-hundredth (1/1,500) of the average Class B shares outstanding. Average equivalent Class B shares outstanding represents average Class B shares outstanding plus 1,500 times average Class A shares outstanding.

For several years, Berkshire had a common stock repurchase program, which permitted Berkshire to repurchase its Class A and Class B shares at prices no higher than a 20% premium over the book value of the shares. On July 17, 2018, Berkshire's Board of Directors authorized an amendment to the program, permitting Berkshire to repurchase shares any time that Warren Buffett, Berkshire's Chairman of the Board and Chief Executive Officer, and Charlie Munger, Vice Chairman of the Board, believe that the repurchase price is below Berkshire's intrinsic value, conservatively determined. The program continues to allow share repurchases in the open market or through privately negotiated transactions and does not specify a maximum number of shares to be repurchased. However, repurchases will not be made if they would reduce the total value of Berkshire's consolidated cash, cash equivalents and U.S. Treasury Bills holdings below \$20 billion. The repurchase program does not obligate Berkshire to repurchase any specific dollar amount or number of Class A or Class B shares and there is no expiration date to the program.

Note 21. Income taxes

Our consolidated effective income tax rates for the second quarter and first six months of 2019 were 20.2% and 20.9%, respectively, and 20.0% and 18.9% in the second quarter and first six months of 2018, respectively. Our effective income tax rate normally reflects recurring benefits from dividends-received deductions applicable to investments in equity securities and production tax credits related to wind-powered electricity generation placed in service in the U.S. Our periodic effective income tax rate will also vary due to the changes in mix of pre-tax earnings and underlying income tax rates applicable in the various taxing jurisdictions. In the first quarter of 2019, we recorded income tax expense of \$377 million for uncertain tax positions related to investments in certain tax equity investment funds that generated income tax benefits from 2015 through 2018. We now believe that it is more likely than not those income tax benefits are not valid.

Note 22. Accumulated other comprehensive income

A summary of the net changes in after-tax accumulated other comprehensive income attributable to Berkshire Hathaway shareholders and amounts reclassified out of accumulated other comprehensive income for the six months ending June 30, 2019 and 2018 follows (in millions).

	Unrealized appreciation of investments, net		Foreign currency translation		Defined benefit pension plans		Other	 ecumulated other nprehensive income
<u>2019</u>								
Balance at December 31, 2018	\$	370	\$	(4,603)	\$	(816)	\$ 34	\$ (5,015)
Other comprehensive income, net before reclassifications		163		145		45	(44)	309
Reclassifications into net earnings:								
Reclassifications before income taxes		4		_		31	6	41
Applicable income taxes		(1)				(9)	(3)	(13)
Balance at June 30, 2019	\$	536	\$	(4,458)	\$	(749)	\$ (7)	\$ (4,678)
<u>2018</u>								
Balance at December 31, 2017	\$	62,093	\$	(3,114)	\$	(420)	\$ 12	\$ 58,571
Reclassifications to retained earnings upon adoption of new								
accounting standards		(61,340)		(65)		36	(6)	(61,375)
Other comprehensive income, net before reclassifications		(144)		(705)		(8)	5	(852)
Reclassifications into net earnings:								
Reclassifications before income taxes		(265)		_		84	(8)	(189)
Applicable income taxes		56				(22)	3	37
Balance at June 30, 2018	\$	400	\$	(3,884)	\$	(330)	\$ 6	\$ (3,808)

Note 23. Contingencies and Commitments

We are parties in a variety of legal actions that routinely arise out of the normal course of business, including legal actions seeking to establish liability directly through insurance contracts or indirectly through reinsurance contracts issued by Berkshire subsidiaries. Plaintiffs occasionally seek punitive or exemplary damages. We do not believe that such normal and routine litigation will have a material effect on our financial condition or results of operations. Berkshire and certain of its subsidiaries are also involved in other kinds of legal actions, some of which assert or may assert claims or seek to impose fines and penalties. We believe that any liability that may arise from other pending legal actions will not have a material effect on our consolidated financial condition or results of operations.

On April 30, 2019, Berkshire committed to invest a total of \$10 billion in connection with Occidental Petroleum Corporation's ("Occidental") proposal to acquire Anadarko Petroleum Corporation ("Anadarko"). The acquisition transaction between Occidental and Anadarko is subject to approval by Anadarko shareholders, who are scheduled to vote on the acquisition on August 8, 2019. If approved by Anadarko shareholders, we expect the acquisition and our investment will be completed shortly thereafter.

If completed, Berkshire's investment will include newly issued Occidental Cumulative Perpetual Preferred Stock with an aggregate liquidation value of \$10 billion, together with warrants to purchase up to 80 million shares of Occidental common stock at an exercise price of \$62.50 per share. The preferred stock will accrue dividends at 8% per annum and will be redeemable at the option of Occidental commencing on the tenth anniversary of issuance at a redemption price equal to 105% of the liquidation preference plus any accumulated and unpaid dividends, or mandatorily under certain specified capital return events. Dividends will be paid in cash or, at Occidental's option, in shares of Occidental common stock. The warrants issued with the preferred stock may be exercised in whole or in part until one year after the redemption of the preferred stock.

Note 24. Revenues from contracts with customers

On January 1, 2018, we adopted ASC 606 "Revenues from Contracts with Customers." Under ASC 606, revenues are recognized when a good or service is transferred to a customer. A good or service is transferred when (or as) the customer obtains control of that good or service. Revenues are based on the consideration we expect to receive in connection with our promises to deliver goods and services to our customers.

The following tables summarize customer contract revenues disaggregated by reportable segment and the source of the revenue for the second quarter and first six months of 2019 and 2018 (in millions). Other revenues included in consolidated revenues were primarily insurance premiums earned, interest, dividend and other investment income and leasing revenues which are not within the scope of ASC 606.

	Mar	nufacturing	McLane Company		Service and Retail		BNSF	Ha	erkshire athaway Energy	Insurance, Corporate and other		Total
Three months ending June 30, 2019		<u></u>										
Manufactured products:												
Industrial and commercial products	\$	6,503	\$ —	\$	46	\$	_	\$	_	\$ —	\$	6,549
Building products		4,143	_		_		_		_	_		4,143
Consumer products		3,669	_		_		_		_	_		3,669
Grocery and convenience store distribution		_	8,042		_		_		_	_		8,042
Food and beverage distribution		_	4,321		_		_		_	_		4,321
Auto sales		_	_		2,125		_		_	_		2,125
Other retail and wholesale distribution		534	_		3,092		_		_	_		3,626
Service		429	23		1,044		5,837		1,223	_		8,556
Electricity and natural gas				_					3,429		_	3,429
Total		15,278	12,386		6,307		5,837		4,652	_		44,460
Other revenue		913	25	_	1,133		14		318	16,735	_	19,138
	\$	16,191	\$ 12,411	\$	7,440	\$	5,851	\$	4,970	\$ 16,735	\$	63,598
Six months ending June 30, 2019												
Manufactured products:												
Industrial and commercial products	\$	12,962	\$ —	\$	92	\$	_	\$	_	\$ —	\$	13,054
Building products		7,695	_		_		_		_	_		7,695
Consumer products		6,959	_		_		_		_	_		6,959
Grocery and convenience store distribution		_	16,077		_		_		_	_		16,077
Food and beverage distribution		_	8,446		_		_		_	_		8,446
Auto sales		_	_		4,062		_		_	_		4,062
Other retail and wholesale distribution		1,078	_		6,013		_			_		7,091
Service		777	43		2,034		11,550		1,948	_		16,352
Electricity and natural gas									7,116			7,116
Total		29,471	24,566		12,201		11,550		9,064	_		86,852
Other revenue		1,779	44		2,242		26		578	32,755		37,424
	\$	31,250	\$ 24,610	<u>\$</u>	14,443	\$	11,576	<u>\$</u>	9,642	\$ 32,755	<u>\$1</u>	24,276

Note 24. Revenues from contracts with customers (Continued)

	Man	ufacturing		Lane npany	Service and Retail		BNSF		BNSF		Berkshire Hathaway Energy					Total
Three months ending June 30, 2018																
Manufactured products:																
Industrial and commercial products	\$	6,789	\$	_	\$	54	\$	_	\$	_	\$	_	\$	6,843		
Building products		3,431		_		_		_		_		_		3,431		
Consumer products		4,154		_		_				_		_		4,154		
Grocery and convenience store distribution				8,261								_		8,261		
Food and beverage distribution				4,127		_				_		_		4,127		
Auto sales				_		2,073						_		2,073		
Other retail and wholesale distribution		519				2,942				_		_		3,461		
Service		279		20		1,023		5,831		1,186		_		8,339		
Electricity and natural gas		_		_		_				3,566		_		3,566		
Total		15,172	1:	2,408		6,092		5,831		4,752				44,255		
Other revenue		739		19		1,194		14		298	1.	5,681		17,945		
	\$	15,911	\$ 13	2,427	\$	7,286	\$	5,845	\$	5,050	\$ 1.	5,681	\$	62,200		
Six months ending June 30, 2018																
Manufactured products:																
Industrial and commercial products	\$	13,343	\$	_	\$	108	\$	_	\$	_	\$	_	\$	13,451		
Building products		6,351		_		_		_		_		_		6,351		
Consumer products		7,850		_		_		_		_		_		7,850		
Grocery and convenience store distribution		_	1	6,419		_		_		_		_		16,419		
Food and beverage distribution		_		8,124		_		_		_		_		8,124		
Auto sales				_		4,004						_		4,004		
Other retail and wholesale distribution		1,017		_		5,654		_		_		_		6,671		
Service		497		37		1,973		11,411		1,886		_		15,804		
Electricity and natural gas		_		_		_		_		7,090		_		7,090		
Total		29,058	2.	4,580		11,739		11,411		8,976		_		85,764		
Other revenue		1,551		36		2,334		24		586	3	0,378		34,909		
	\$	30,609	\$ 2	4,616	\$	14,073	\$	11,435	\$	9,562	\$ 3	0,378	\$1	20,673		

A summary of the transaction price allocated to the significant unsatisfied remaining performance obligations relating to contracts with expected durations in excess of one year as of June 30, 2019 follows (in millions).

	Performanc expected to		
	Less than 12 months	ater than months	Total
Electricity and natural gas	\$ 935	\$ 5,411	\$ 6,346
Other sales and service contracts	1.211	2.116	3.327

Note 25. Business segment data

Our operating businesses include a large and diverse group of insurance, manufacturing, service and retailing businesses. We organize our reportable business segments in a manner that reflects how management views those business activities. Certain businesses are grouped together for segment reporting based upon similar products or product lines, marketing, selling and distribution characteristics, even though those business units are operated under separate local management. The accompanying business segment information for the 2018 periods reflects certain reclassifications to conform to presentations as of December 31, 2018. Specifically, business units that previously were reported as the finance and financial products segment in the 2018 periods were reclassified to manufacturing (Clayton Homes and UTLX), services and retailing (CORT and XTRA leasing) and corporate and other (principally investment income).

Revenues and earnings before income taxes by segment for the second quarter and first six months of 2019 and 2018 were as follows (in millions).

Second Quarter

First Six Months

		2019		2018	_	2019		2018
Revenues of Operating Businesses:		2019		2016	_	2019	_	2018
Insurance:								
Underwriting:								
GEICO	\$	8,869	\$	8,284	\$	17,491	\$	16,199
Berkshire Hathaway Reinsurance Group		3,707		3,912		7,253		7,452
Berkshire Hathaway Primary Group		2,287		1,953		4,438		3,871
Investment income		1,654		1,399		3,141		2,612
Total insurance		16,517		15,548		32,323		30,134
BNSF		5,893		5,878		11,655		11,502
Berkshire Hathaway Energy		4,970		5,050		9,642		9,562
Manufacturing		16,206		15,927		31,276		30,649
McLane Company		12,411		12,427		24,610		24,616
Service and retailing		7,462		7,307		14,487		14,122
		63,459		62,137		123,993		120,585
Reconciliation of segments to consolidated amount:								
Corporate, eliminations and other		139		63		283		88
	\$	63,598	\$	62,200	\$	124,276	\$	120,673
				· · · · · · · · · · · · · · · · · · ·				
		Second	Quar	ter		First Six	Mor	nths
		2019		2018		2019		2018
Earnings Before Income Taxes of Operating Businesses:								
Insurance:								
Underwriting:								
GEICO	\$	393	\$	673	\$	1,163	\$	1,350
Berkshire Hathaway Reinsurance Group		(104)		297		(357)		39
Berkshire Hathaway Primary Group		167		234		137		333
Investment income		1,649		1,392		3,134		2,597
Total insurance		2,105		2,596		4,077		4,319
BNSF		2,103		2,370		4,077		
DINOI.		1,773		1,655		3,438		3,168
Berkshire Hathaway Energy								3,168 1,073
		1,773		1,655		3,438		
Berkshire Hathaway Energy		1,773 593		1,655 586		3,438 1,133		1,073
Berkshire Hathaway Energy Manufacturing		1,773 593 2,527		1,655 586 2,529		3,438 1,133 4,721		1,073 4,736
Berkshire Hathaway Energy Manufacturing McLane Company	_	1,773 593 2,527 59		1,655 586 2,529 67		3,438 1,133 4,721 170		1,073 4,736 127
Berkshire Hathaway Energy Manufacturing McLane Company	_	1,773 593 2,527 59 745		1,655 586 2,529 67 763		3,438 1,133 4,721 170 1,366		1,073 4,736 127 1,336
Berkshire Hathaway Energy Manufacturing McLane Company Service and retailing	_	1,773 593 2,527 59 745	_	1,655 586 2,529 67 763		3,438 1,133 4,721 170 1,366		1,073 4,736 127 1,336
Berkshire Hathaway Energy Manufacturing McLane Company Service and retailing Reconciliation of segments to consolidated amount:	_	1,773 593 2,527 59 745 7,802	_	1,655 586 2,529 67 763 8,196		3,438 1,133 4,721 170 1,366 14,905	_	1,073 4,736 127 1,336 14,759
Berkshire Hathaway Energy Manufacturing McLane Company Service and retailing Reconciliation of segments to consolidated amount: Investment and derivative gains (losses)	_	1,773 593 2,527 59 745 7,802		1,655 586 2,529 67 763 8,196		3,438 1,133 4,721 170 1,366 14,905		1,073 4,736 127 1,336 14,759 (1,653)
Berkshire Hathaway Energy Manufacturing McLane Company Service and retailing Reconciliation of segments to consolidated amount: Investment and derivative gains (losses) Interest expense, not allocated to segments		1,773 593 2,527 59 745 7,802 10,048 (107)		1,655 586 2,529 67 763 8,196 6,362 (115)		3,438 1,133 4,721 170 1,366 14,905 30,370 (216)		1,073 4,736 127 1,336 14,759 (1,653) (235)

Results of Operations

Net earnings attributable to Berkshire Hathaway shareholders are disaggregated in the table that follows. Amounts are after deducting income taxes and exclude earnings attributable to noncontrolling interests (in millions).

	Second Quarter					First Six Months				
		2019		2018		2019		2018		
Insurance – underwriting	\$	353	\$	943	\$	742	\$	1,350		
Insurance – investment income		1,366		1,142		2,603		2,154		
Railroad		1,338		1,309		2,591		2,454		
Utilities and energy		607		581		1,212		1,166		
Manufacturing, service and retailing		2,487		2,486		4,687		4,613		
Investment and derivative gains (losses)		7,934		5,118		24,040		(1,308)		
Other		(12)		432		(141)		444		
Net earnings attributable to Berkshire Hathaway shareholders	\$	14,073	\$	12,011	\$	35,734	\$	10,873		

Through our subsidiaries, we engage in a number of diverse business activities. We manage our operating businesses on an unusually decentralized basis. There are essentially no centralized or integrated business functions and there is minimal involvement by our corporate headquarters in the day-to-day business activities of the operating businesses. Our senior corporate management team participates in and is ultimately responsible for significant capital allocation decisions, investment activities and the selection of the Chief Executive to head each of the operating businesses. The business segment data (Note 25 to the accompanying Consolidated Financial Statements) should be read in conjunction with this discussion.

Our insurance businesses generated after-tax earnings from underwriting of \$353 million in the second quarter and \$742 million in the first six months of 2019. In 2019, insurance underwriting included gains from primary insurance and losses from reinsurance. Earnings from insurance underwriting in 2019 included lower gains from reductions of claim liability estimates for prior years' property/casualty loss events than in 2018. After-tax earnings from insurance investments increased 19.6% in the second quarter and 20.8% in the first six months of 2019 over the same periods in 2018. These increases reflected higher average short-term interest rates and increased dividend income.

After-tax earnings of our railroad business increased 2.2% in the second quarter and 5.6% in the first six months of 2019 compared to 2018. Earnings in 2019 were negatively affected by persistent flooding conditions in the first half and severe winter weather in the first quarter. These conditions contributed to lower freight volumes and higher operating costs. Earnings in 2019 benefited from higher rates per car/unit, a curtailment gain related to an amendment to defined benefit retirement plans and ongoing operating cost control initiatives.

After-tax earnings of our utilities and energy business increased 4.5% in the second quarter and 3.9% in the first six months of 2019 compared to the corresponding 2018 periods. Earnings from our manufacturing, service and retailing businesses were essentially unchanged in the second quarter and increased 1.6% in the first six months over the same periods in 2018. Operating results of our underlying business operations in 2019 were mixed, with several of these businesses experiencing lower earnings in 2019 attributable to a variety of factors.

After-tax investment and derivative gains were \$7.9 billion in the second quarter and \$24.0 billion in the first six months of 2019, compared to an after-tax gain of \$5.1 billion in the second quarter and an after-tax loss of \$1.3 billion in the first six months of 2018. Investment and derivative gains/losses in 2019 included significant unrealized gains from market price changes on our holdings of equity securities. After-tax unrealized gains on equity securities were approximately \$7.1 billion in the second quarter and \$22.2 billion in the first six months of 2019. After-tax investment gains in 2019 also included after-tax realized gains on sales of equity and fixed maturity securities of \$662 million in the second quarter and \$1,054 million in the first six months. In 2018, investments in equity securities produced after-tax unrealized gains of \$4.3 billion in the second quarter and an after-tax loss of approximately \$2.7 billion in the first six months due to changes in market prices. After-tax realized gains on sales of equity and fixed maturity securities in 2018 were \$512 million in the second quarter and \$1.3 billion in the first six months.

We believe that investment and derivative gains/losses, whether realized from dispositions or settlements or unrealized from changes in market prices of equity securities, are generally meaningless in understanding our reported results or evaluating our economic performance of our businesses. These gains and losses have caused and will continue to cause significant volatility in our periodic earnings.

Insurance—Underwriting

Our management views our insurance businesses as possessing two distinct activities – underwriting and investing. Underwriting decisions are the responsibility of the unit managers, while investing decisions are the responsibility of Berkshire's Chairman and CEO, Warren E. Buffett and Berkshire's corporate investment managers. Accordingly, we evaluate performance of underwriting operations without any allocation of investment income or investment gains/losses. We consider investment income as a component of our aggregate insurance operating results. However, we consider investment gains and losses, whether realized or unrealized as non-operating, based on our long-held philosophy of acquiring securities and holding those securities for long periods. Accordingly, we believe that such gains and losses are not necessarily meaningful in understanding the operating results of our insurance operations.

The timing and amount of catastrophe losses can produce significant volatility in our periodic underwriting results, particularly with respect to our reinsurance businesses. Generally, we consider pre-tax losses in excess of \$100 million from a current year event as significant.

Changes in estimates for unpaid losses and loss adjustment expenses, including amounts established for occurrences in prior years, can also significantly affect our periodic underwriting results. Unpaid loss estimates, including estimates under retroactive reinsurance contracts, were \$112.3 billion as of June 30, 2019. Our periodic underwriting results may also include significant foreign currency transaction gains and losses arising from the changes in the valuation of non-U.S. Dollar denominated reinsurance liabilities of our U.S. based insurance subsidiaries due to foreign currency exchange rate fluctuations.

We engage in both primary insurance and reinsurance of property/casualty, life and health risks. In primary insurance activities, we assume defined portions of the risks of loss from persons or organizations that are directly subject to the risks. In reinsurance activities, we assume defined portions of similar or dissimilar risks that other insurers or reinsurers have subjected themselves to in their own insuring activities. Our insurance and reinsurance businesses are GEICO, Berkshire Hathaway Reinsurance Group ("BHRG") and Berkshire Hathaway Primary Group.

Underwriting results of our insurance businesses are summarized below (dollars in millions).

	Second Quarter					First Six Months			
	2019			2018		2019		2018	
Pre-tax underwriting gain (loss):									
GEICO	\$	393	\$	673	\$	1,163	\$	1,350	
Berkshire Hathaway Reinsurance Group		(104)		297		(357)		39	
Berkshire Hathaway Primary Group		167		234		137		333	
Pre-tax underwriting gain (loss)		456		1,204		943		1,722	
Income taxes and noncontrolling interests		103		261		201		372	
Net underwriting gain	\$	353	\$	943	\$	742	\$	1,350	
Effective income tax rate		22.1%		21.4%		22.3%		21.4%	

GEICO

GEICO writes private passenger automobile insurance, offering coverages to insureds in all 50 states and the District of Columbia. GEICO markets its policies mainly by direct response methods where most customers apply for coverage directly to the company via the Internet or over the telephone. A summary of GEICO's underwriting results follows (dollars in millions).

	Second Quarter				First Six Months				
	2019		201	8	201	19	2018		
	Amount	<u>%</u>	Amount	<u>%</u>	Amount	%	Amount		
Premiums written	\$ 8,703		\$ 8,237		\$17,966		\$16,926		
Premiums earned	\$ 8,869	100.0	\$ 8,284	100.0	\$17,491	100.0	\$ 16,199	100.0	
Losses and loss adjustment expenses	7,276	82.0	6,505	78.5	13,832	79.1	12,580	77.7	
Underwriting expenses	1,200	13.6	1,106	13.4	2,496	14.3	2,269	14.0	
Total losses and expenses	8,476	95.6	7,611	91.9	16,328	93.4	14,849	91.7	
Pre-tax underwriting gain	\$ 393		\$ 673		\$ 1,163		\$ 1,350		

Insurance—Underwriting (Continued)

GEICO (Continued)

Premiums written and earned in the second quarter of 2019 increased 5.7% and 7.1%, respectively, and in the first six months of 2019 increased 6.1% and 8.0%, respectively, compared to the same periods in 2018. The increases reflected voluntary auto policies-in-force growth of 4.5% and increased premiums per auto policy of approximately 1.7% over the past twelve months. The increase in voluntary auto policies-in-force primarily resulted from an increase in new business sales of 8.6%. The increase in premiums per policy was attributable to rate increases, coverage changes and changes in state and risk mix. Voluntary auto policies-in-force increased approximately 570,000 during the first six months of 2019.

Losses and loss adjustment expenses in the second quarter of 2019 increased 11.9% to \$7.3 billion and in the first six months of 2019 increased 10.0% to \$13.8 billion. GEICO's ratios of losses and loss adjustment expenses to premiums earned (the "loss ratio") in the second quarter and first six months of 2019 were 82.0% and 79.1%, respectively, increases of 3.5 percentage points over the second quarter and 1.4 percentage points over the first six months of 2018.

GEICO reduced ultimate claim loss estimates for prior years' loss events by \$54 million in the first six months of 2019 compared to \$430 million in the first six months of 2018, which produced corresponding pre-tax underwriting gains. The comparative reduction in gains in the first six months pertained to both physical damage and liability claims. Claims frequencies in the first six months of 2019 for property damage and collision coverages and personal injury protection coverage were down (two to four percent range) compared to 2018 and were flat for bodily injury coverage. Average claims severities in the first six months of 2019 were higher for property damage and collision coverages (four to six percent range) and bodily injury coverage (six to eight percent range).

Underwriting expenses in the first six months of 2019 were \$2.5 billion, an increase of \$227 million (10.0%) over 2018. GEICO's expense ratio (underwriting expenses to premiums earned) in the first six months of 2019 was 14.3%, an increase of 0.3 percentage points compared to 2018. The underwriting expense increase was primarily attributable to increases in advertising expenses, insurance premium taxes and employee-related costs, which reflected wage and staffing increases.

Berkshire Hathaway Reinsurance Group

We offer excess-of-loss and quota-share reinsurance coverages on property and casualty risks and life and health reinsurance to insurers and reinsurers worldwide through several subsidiaries, led by National Indemnity Company ("NICO"), Berkshire Hathaway Life Insurance Company of Nebraska ("BHLN") and General Reinsurance Corporation, General Reinsurance AG and General Re Life Corporation (collectively, "General Re"). We also periodically assume property and casualty risks under retroactive reinsurance contracts written through NICO. In addition, we write periodic payment annuity contracts predominantly through BHLN.

With the exception of our retroactive reinsurance and periodic payment annuity product lines, we strive to generate pre-tax underwriting profits. Time-value-of-money concepts are important elements in establishing prices for retroactive reinsurance and periodic payment annuity premiums due to the expected long durations of the liabilities. We expect to incur pre-tax underwriting losses from these products through deferred charge amortization and discount accretion charges. We receive premiums at the inception of these contracts, which are then available for investment. A summary of BHRG's premiums and pre-tax underwriting results follows (dollars in millions).

		Second	Quarter		First Six Months					
	Premiun	ns earned	Pre-tax un gain (0	Premiun	ns earned	Pre-tax und gain (l	0		
	2019	2018	2019	2018	2019	2018	2019	2018		
Property/casualty	\$ 2,301	\$ 2,296	\$ 198	\$ 338	\$ 4,623	\$ 4,322	\$ 158	\$ 468		
Retroactive reinsurance	91	_	(238)	(147)	94	_	(561)	(458)		
Life/health	1,086	1,314	11	120	2,113	2,548	291	216		
Periodic payment annuity	229	302	(75)	(14)	423	582	(245)	(187)		
	\$ 3,707	\$ 3,912	\$ (104)	\$ 297	\$ 7,253	\$ 7,452	\$ (357)	\$ 39		

Insurance—Underwriting (Continued)

Berkshire Hathaway Reinsurance Group (Continued)

Property/casualty

A summary of property/casualty reinsurance underwriting results follows (dollars in millions).

	Second Quarter				First Six Months				
	201	2019		8	201	9	2018		
	Amount	%	Amount	%	Amount	%	Amount	%	
Premiums written	\$ 2,327		\$ 2,089		\$ 5,869		\$ 5,435		
Premiums earned	\$ 2,301	100.0	\$ 2,296	100.0	\$ 4,623	100.0	\$ 4,322	100.0	
Losses and loss adjustment expenses	1,455	63.2	1,410	61.4	3,229	69.8	2,801	64.8	
Underwriting expenses	648	28.2	548	23.9	1,236	26.8	1,053	24.4	
Total losses and expenses	2,103	91.4	1,958	85.3	4,465	96.6	3,854	89.2	
Pre-tax underwriting gain (loss)	<u>\$ 198</u>		\$ 338		<u>\$ 158</u>		\$ 468		

Property/casualty premiums written increased 11.4% in the second quarter and 8.0% in the first six months of 2019, as compared to the same periods in 2018. Premiums earned in the second quarter were relatively unchanged and in the first six months of 2019 increased \$301 million (7.0%), versus 2018. The increase in year-to-date premiums earned was primarily attributable to new business, net of non-renewals, and increased participations for renewal business. Premiums earned in the first six months included \$861 million in 2019 and \$910 million in 2018 from a 10-year, 20% quota-share contract entered into by NICO with Insurance Australia Group Limited, which expires in 2025.

Losses and loss adjustment expenses in the second quarter and first six months of 2019 increased \$45 million (3.2%) and \$428 million (15.3%), respectively, compared to the same periods in 2018. Losses and loss adjustment expenses in the first six months of 2019 included a net increase in estimated ultimate claim liabilities attributable to prior years' loss events of approximately \$269 million compared to a net decrease of \$286 million in 2018. Such increases and decreases were approximately 1% of the related net unpaid claim liabilities as of the beginning of the applicable year. Losses and loss adjustment expenses in the first six months of 2019 also reflected an overall 7.4 percentage point decline in the loss ratio attributable to the current accident year as compared to 2018. There were no significant catastrophe loss events affecting our reinsurance operations during the first six months of 2019 or 2018.

Retroactive reinsurance

There were no significant retroactive reinsurance contracts written in the first six months of 2019 or 2018. Pre-tax underwriting losses in 2019 and 2018 derived from deferred charge amortization and changes in the estimated timing and amount of future claim payments, as well as from foreign currency gains and losses arising from the periodic re-measurement of liabilities related to contracts written by our U.S. subsidiaries that are denominated in foreign currencies. Underwriting results included pre-tax gains of \$41 million in the second quarter and pre-tax losses of \$11 million in the first six months of 2019 associated with the re-measurement of such liabilities due to changes in foreign currency exchange rates. Foreign currency re-measurement gains in 2018 were \$124 million in the second quarter and \$64 million in the first six months. Pre-tax underwriting losses before foreign currency gains/losses in the second quarter and first six months were \$279 million and \$550 million, respectively, in 2019 compared to \$271 million and \$522 million, respectively, in 2018. Deferred charge amortization in the first six months included \$316 million in 2019 and \$299 million in 2018 related to an aggregate excess-of-loss retroactive reinsurance agreement with various subsidiaries of American International Group, Inc.

Gross unpaid losses assumed under retroactive reinsurance contracts were \$41.5 billion at June 30, 2019 and \$41.8 billion at December 31, 2018. Unamortized deferred charge assets related to such reinsurance contracts were \$13.6 billion at June 30, 2019 and \$14.1 billion at December 31, 2018. Deferred charge assets will be charged to pre-tax earnings over the expected remaining claims settlement periods through periodic amortization.

Insurance—Underwriting (Continued)

Berkshire Hathaway Reinsurance Group (Continued)

Life/health

A summary of our life/health reinsurance underwriting results follows (dollars in millions).

		Second Quarter				First Six Months					
	201	2019		8	20:	19	2018				
	Amount	%	Amount	%	Amount	%	Amount	%			
Premiums written	\$ 1,092		\$ 1,330		\$ 2,119		\$ 2,567				
Premiums earned	\$ 1,086	100.0	\$ 1,314	100.0	\$ 2,113	100.0	\$ 2,548	100.0			
Life and health insurance benefits	863	79.5	1,024	77.9	1,461	69.1	1,960	76.9			
Underwriting expenses	212	19.5	170	13.0	361	17.1	372	14.6			
Total benefits and expenses	1,075	99.0	1,194	90.9	1,822	86.2	2,332	91.5			
Pre-tax underwriting gain (loss)	<u>\$ 11</u>		<u>\$ 120</u>		\$ 291		<u>\$ 216</u>				

Life/health premiums earned were \$1.1 billion in the second quarter and \$2.1 billion in first six months of 2019, decreases of \$228 million (17.4%) and \$435 million (17.1%), respectively, compared to corresponding 2018 periods. The decreases were primarily attributable to the effects of an amendment to a reinsurance contract in the first quarter of 2019, partially offset by volume growth in the Asia life markets.

In the first quarter of 2019, BHLN amended a yearly-renewable-term life reinsurance contract with a major U.S. reinsurer. The amendment effectively eliminates BHLN's future exposures under the contract. BHLN recorded a reduction in earned premiums on this contract of \$49 million in the first six months of 2019, largely attributable to the contract amendment. Premiums earned from this contract in the first six months of 2018 were \$442 million and approximately \$1.0 billion for the year ending December 31, 2018.

The life/health business produced pre-tax underwriting gains of \$11 million in the second quarter and \$291 million in the first six months of 2019. Underwriting results in the first six months of 2019 included a one-time pre-tax gain of approximately \$160 million attributable to the BHLN contract amendment, which resulted in reductions of benefits incurred and premiums earned. Pre-tax life/health underwriting results also included gains from the run-off of variable annuity contracts of \$12 million in the second quarter and \$101 million in the first six months of 2019 compared to \$55 million in the second quarter and \$100 million in the first six months of 2018. Underwriting results from this business reflect changes in estimated liabilities for guaranteed benefits, which result from changes in securities markets and interest rates and from the periodic amortization of expected profit margins. In 2019, pre-tax life/health underwriting results also reflected an increase in the second quarter in disability benefit liabilities in Australia, attributable to higher claims experience and changes to various underlying assumptions, an increase in U.S. individual life claims incurred due to higher than expected severity, and higher losses from the run-off of U.S. long-term care business.

Periodic payment annuity

Periodic payment annuity premiums earned in the first six months of 2019 were \$423 million, a decrease of \$159 million (27.3%) compared to 2018. Periodic payment business is price sensitive. The volumes written can change rapidly due to changes in prices, which are affected by prevailing interest rates, the perceived risks and durations associated with the expected annuity payments, and the level of competition.

Periodic payment annuity contracts normally produce pre-tax underwriting losses deriving from the recurring discount accretion of annuity liabilities. Underwriting results also include the impact of mortality and interest rate changes, as well as re-measurement gains and losses related to foreign currency denominated liabilities of certain contracts written by our U.S. subsidiaries. Pre-tax underwriting results in 2019 included pre-tax re-measurement gains of \$37 million in the second quarter and \$9 million in the first six months due to changes in foreign currency exchange rates. Re-measurement gains were \$106 million in the second quarter and \$36 million in the first six months of 2018.

Before foreign currency re-measurement gains, pre-tax underwriting losses from periodic payment annuity contracts were \$112 million in the second quarter and \$254 million in the first six months of 2019 compared to losses of \$120 million in the second quarter and \$223 million in the first six months of 2018. Discounted annuity liabilities were \$12.9 billion at June 30, 2019 and \$12.5 billion at December 31, 2018, reflecting a weighted average discount rate of approximately 4.1%.

Insurance—Underwriting (Continued)

Berkshire Hathaway Primary Group

The Berkshire Hathaway Primary Group ("BH Primary") provides a variety of commercial insurance solutions, including healthcare malpractice, workers' compensation, automobile, general liability, property and various specialty coverages for small, medium and large clients. The largest of these insurers are Berkshire Hathaway Specialty Insurance ("BH Specialty"), Berkshire Hathaway Homestate Companies ("BHHC"), MedPro Group, Berkshire Hathaway GUARD Insurance Companies ("GUARD"), and National Indemnity Company ("NICO Primary"). Other BH Primary insurers include U.S. Liability Insurance Company, Applied Underwriters, Central States Indemnity Company and MLMIC Insurance Company, acquired October 1, 2018.

A summary of BH Primary underwriting results follows (dollars in millions).

	Second Quarter				First Six Months				
	2019	2019		8	20	19	2018		
	Amount	<u>%</u>	Amount	%	Amount	%	Amount	<u>%</u>	
Premiums written	\$ 2,370		\$ 2,110		\$ 4,711		\$ 4,271		
Premiums earned	\$ 2,287	100.0	\$ 1,953	100.0	\$ 4,438	100.0	\$ 3,871	100.0	
Losses and loss adjustment expenses	1,568	68.6	1,214	62.2	3,138	70.7	2,465	63.7	
Underwriting expenses	552	24.1	505	25.9	1,163	26.2	1,073	27.7	
Total losses and expenses	2,120	92.7	1,719	88.1	4,301	96.9	3,538	91.4	
Pre-tax underwriting gain (loss)	<u>\$ 167</u>		\$ 234		\$ 137		\$ 333		

Premiums written in the second quarter and first six months of 2019 increased 12.3% and 10.3%, respectively, compared to the same periods in 2018. The comparative year-to-date increase was primarily attributable to BH Specialty (23.8%) and GUARD (23.6%), while aggregate premiums written in 2019 by other BH Primary operations were relatively unchanged from 2018. The increases in premiums earned in 2019 reflected volume increases over the past year, as well as the impact of the MLMIC acquisition.

BH Primary produced pre-tax underwriting gains of \$137 million in the first six months of 2019 and \$333 million in the first six months of 2018. BH Primary's aggregate loss ratios for the first six months were 70.7% in 2019 and 63.7% in 2018. Losses and loss adjustment expenses incurred in the first six months included reductions for prior years' loss events of \$144 million in 2019 and \$338 million in 2018. The net gains from the reductions of prior accident years' liabilities in 2019 were generally lower compared to 2018 across the various BH Primary operations, due in part to additional estimated claim liabilities recorded in the first quarter of 2019 for legacy casualty exposures.

BH Primary units write significant levels of commercial and professional liability and workers' compensation insurance and the related claim costs may be subject to higher severity and longer claim-tails. Accordingly, we could experience significant increases in claims liabilities in the future attributable to higher than expected claim settlements, adverse litigation outcomes or judicial rulings and other factors not currently anticipated.

Insurance—Investment Income

A summary of net investment income attributable to our insurance operations follows (dollars in millions).

	Second Quarter			er	First Six I			ths
		2019		2018		2019		2018
Interest and other investment income	\$	577	\$	399	\$	1,090	\$	851
Dividend income		1,072		993		2,044		1,746
Investment income before income taxes and noncontrolling interests		1,649		1,392		3,134		2,597
Income taxes and noncontrolling interests		283		250		531		443
Net investment income	\$	1,366	\$	1,142	\$	2,603	\$	2,154
Effective income tax rate		17.0%		17.9%		16.8%	_	17.0%

Insurance—Investment Income (Continued)

Interest and other investment income in the second quarter and first six months of 2019 increased \$178 million (44.6%) and \$239 million (28.1%), respectively, as compared to the same periods in 2018. The comparative increases were primarily due to higher interest rates on short-term investments and interest from a term loan with Seritage Growth Properties. For the first six months, the increase in interest income was partially offset by lower income earned from limited partnership investments. Dividend income in 2019 increased \$79 million (8.0%) in the second quarter and \$298 million (17.1%) in the first six months compared to the corresponding 2018 periods. The increases in dividend income were attributable to an overall increase in investment levels over the past year and higher dividend rates. We continue to hold large cash, cash equivalent and U.S. Treasury Bills balances. We believe that maintaining ample liquidity is paramount and we insist on safety over yield with respect to short-term investments.

Invested assets of our insurance businesses derive from shareholder capital, including reinvested earnings, and from net liabilities under insurance contracts or "float." The major components of float are unpaid losses and loss adjustment expenses, including liabilities under retroactive reinsurance contracts, life, annuity and health benefit liabilities, unearned premiums and other liabilities due to policyholders, less premium and reinsurance receivables, deferred charges assumed under retroactive reinsurance contracts and deferred policy acquisition costs. Float was approximately \$125 billion at June 30, 2019 and \$123 billion at December 31, 2018. Our average cost of float was negative in the first six months of 2019 as our underwriting operations generated pre-tax earnings of \$943 million.

A summary of cash and investments held in our insurance businesses as of June 30, 2019 and December 31, 2018 follows (in millions).

	 June 30, 2019	De	cember 31, 2018
Cash, cash equivalents and U.S. Treasury Bills	\$ 72,436	\$	64,548
Equity securities	193,452		166,385
Fixed maturity securities	19,784		19,690
Other	2,382		2,288
	\$ 288,054	\$	252,911

Fixed maturity securities as of June 30, 2019 were as follows (in millions).

	An	nortized cost	Unrea gai		arrying value
U.S. Treasury, U.S. government corporations and agencies	\$	4,535	\$	42	\$ 4,577
States, municipalities and political subdivisions		151		6	157
Foreign governments		7,900		62	7,962
Corporate bonds, investment grade		5,711		487	6,198
Corporate bonds, non-investment grade		394		25	419
Mortgage-backed securities		405		66	471
	\$	19,096	\$	688	\$ 19,784

U.S. government securities are rated AA+ or Aaa by the major rating agencies. Approximately 88% of all state, municipal and political subdivisions, foreign government securities and mortgage-backed securities were rated AA or higher. Non-investment grade securities represent securities rated below BBB- or Baa3. Foreign government securities include obligations issued or unconditionally guaranteed by national or provincial government entities.

Railroad ("Burlington Northern Santa Fe")

Burlington Northern Santa Fe, LLC ("BNSF") operates one of the largest railroad systems in North America, with approximately 32,500 route miles of track in 28 states. BNSF also operates in three Canadian provinces. BNSF classifies its major business groups by type of product shipped and include consumer products, coal, industrial products and agricultural products. A summary of BNSF's earnings follows (dollars in millions).

	Second	Quarter	First Six	Months
	2019	2018	2019	2018
Revenues	\$ 5,893	\$ 5,878	\$ 11,655	\$ 11,502
Operating expenses:				
Compensation and benefits	1,334	1,328	2,734	2,643
Fuel	775	830	1,486	1,597
Purchased services	687	714	1,400	1,406
Depreciation and amortization	595	575	1,186	1,146
Equipment rents, materials and other	462	520	876	1,030
Total operating expenses	3,853	3,967	7,682	7,822
Interest expense	267	256	535	512
	4,120	4,223	8,217	8,334
Pre-tax earnings	1,773	1,655	3,438	3,168
Income taxes	435	346	847	714
Net earnings	\$ 1,338	\$ 1,309	\$ 2,591	\$ 2,454
Effective income tax rate	24.5 %	6 20.9%	24.6%	22.5%

BNSF's revenues in the second quarter and first six months of 2019 were \$5.9 billion and \$11.7 billion, respectively, representing increases of \$15 million (0.3%) and \$153 million (1.3%) versus the corresponding periods in 2018. During the first six months of 2019, revenues reflected a 6.3% comparative increase in average revenue per car/unit, driven by increased rates per car/unit. Aggregate year-to-date volumes were 5.0 million cars, representing a decrease of 4.5% from volumes in the first half of 2018.

Pre-tax earnings were \$1.8 billion and \$3.4 billion in the second quarter and first six months of 2019, respectively, increases of 7.1% and 8.5%, respectively, compared to the corresponding periods in 2018. BNSF experienced severe winter weather and flooding on parts of the network in the first half of 2019, which negatively affected revenues, expenses and service levels. BNSF's earnings in the first six months of 2019 also included a revenue increase related to the favorable outcome of an arbitration hearing and a reduction to expense for a curtailment gain arising from an amendment to the defined benefit retirement plans in the first quarter, as well as lower operating expenses attributable to lower volume and cost control initiatives.

Revenues from consumer products were \$1.9 billion in the second quarter and \$3.9 billion in the first six months of 2019, representing a decrease of 3.8% in the second quarter and an increase of 1.7% in the first six months from the corresponding periods in 2018. The changes reflect higher average revenue per car/unit for both periods offset by volume decreases of 6.3% in the second quarter and 6.0% in the first six months. The volume decreases were driven by reduced consumer demand and higher available truck capacity, as well as from lower international intermodal market share and decreased imports.

Revenues from industrial products were \$1.6 billion in the second quarter and \$3.0 billion for the first six months of 2019, increases of 6.4% and 7.4%, respectively, from comparable 2018 periods. The increases were attributable to higher average revenue per car/unit on flat volume in the second quarter and a 0.6% volume increase in the first six months of 2019. Volume changes were primarily due to strength in the energy sector, which drove higher demand for petroleum products and liquefied petroleum gas, offset by lower sand volumes and reduced car loadings due to the challenging weather conditions in 2019.

Revenues from agricultural products in 2019 increased 3.3% in the second quarter to \$1.2 billion and were unchanged in the first six months at \$2.3 billion, when compared to the same periods in 2018. The comparative results reflected higher revenue per car/unit, offset by volume decreases of 4.2% in the second quarter and 5.7% in the first six months. Volumes decreased due to export competition from non-U.S. sources, trade policy, and the challenging weather conditions in 2019.

Revenues from coal in 2019 decreased 3.1% in the second quarter to \$883 million and 5.8% in the first six months to \$1.8 billion compared to 2018. The decreases reflected lower average revenue per car/unit, a volume increase of 1.1% in the second quarter, and a volume decrease of 4.8% in the first six months. Volumes in the first half of 2019 were impacted by the weather conditions, and volumes in the second quarter of 2019 increased due to customer demand.

Railroad ("Burlington Northern Santa Fe") (Continued)

Total operating expenses in the second quarter and first six months of 2019 were \$3.9 billion and \$7.7 billion, respectively, decreases of \$114 million (2.9%) and \$140 million (1.8%), respectively, compared to the same periods in 2018. Our ratio of operating expenses to revenues decreased 2.1 percentage points to 65.4% in the second quarter and 2.1 percentage points to 65.9% in the first six months of 2019 versus the corresponding prior year periods. BNSF's expenses reflected lower volume-related costs, the effects of several cost control initiatives, and a retirement plan curtailment gain, partially offset by the unfavorable impact of the adverse weather conditions.

Compensation and benefits expense increased \$6 million (0.5%) for the second quarter and \$91 million (3.4%) for the first six months of 2019. The increases were primarily due to wage inflation and higher employee counts. Fuel expenses decreased \$55 million (6.6%) for the second quarter and \$111 million (7.0%) for the first six months of 2019, primarily due to lower average fuel prices and lower volumes. Equipment rents, materials and other expense decreased \$58 million (11.2%) for the second quarter and \$154 million (15.0%) for the first six months compared to 2018. The decrease in the first six months was principally driven by a \$120 million curtailment gain from the amendment to the company-sponsored defined benefit retirement plans.

BNSF's effective income tax rate was 24.5% and 24.6% for the second quarter and first six months of 2019, respectively, as compared to 20.9% and 22.5%, respectively, for the corresponding periods in 2018. The effective income tax rates in 2018 included the impact of various state income tax rate reductions enacted during the second quarter.

Utilities and Energy ("Berkshire Hathaway Energy Company")

We currently own 90.9% of the outstanding common stock of Berkshire Hathaway Energy Company ("BHE"), which operates a global energy business. BHE's domestic regulated utility interests are comprised of PacifiCorp, MidAmerican Energy Company ("MEC") and NV Energy. In Great Britain, BHE subsidiaries operate two regulated electricity distribution businesses referred to as Northern Powergrid. BHE also owns two domestic regulated interstate natural gas pipeline companies. Other energy businesses include a regulated electricity transmission-only business in Alberta, Canada ("AltaLink, L.P.") and a diversified portfolio of mostly renewable independent power projects. In addition, BHE also operates the largest residential real estate brokerage firm and one of the largest residential real estate brokerage franchise networks in the United States.

The rates our regulated businesses charge customers for energy and services are based in large part on the costs of business operations, including income taxes and a return on capital, and are subject to regulatory approval. To the extent such costs are not allowed in the approved rates, operating results will be adversely affected. The legislation known as the Tax Cuts and Jobs Act of 2017 ("TCJA") was enacted in December 2017, which reduced the U.S. federal statutory corporate income tax rate from 35% to 21%. In 2018, BHE's regulated subsidiaries began passing the benefits of lower income tax expense attributable to the TCJA to customers through various regulatory mechanisms, including lower rates, higher depreciation and reductions to rate base. Revenues and earnings of BHE are summarized below (dollars in millions).

		Second	l Quarter		First Six Months				
	Reve	enues	E	arnings		Reve	enues	Earni	ngs
	2019	2018	2019	20	18	2019	2018	2019	2018
PacifiCorp	\$ 1,191	\$ 1,198	\$ 206	\$	212	\$ 2,472	\$ 2,400	\$ 428	\$ 385
MidAmerican Energy Company	684	730	53		56	1,556	1,497	137	96
NV Energy	731	760	104		95	1,359	1,385	140	135
Northern Powergrid	244	248	80		50	507	523	179	159
Natural gas pipelines	219	242	63		53	595	621	301	272
Other energy businesses	570	595	78		114	1,034	1,095	71	134
Real estate brokerage	1,331	1,277	115		107	2,119	2,041	91	97
Corporate interest	_		(106) ((101)	_	_	(214)	(205)
	\$ 4,970	\$ 5,050				\$ 9,642	\$ 9,562		
Pre-tax earnings			593		586			1,133	1,073
Income tax benefit			(80)	(63)			(210)	(230)
Net earnings			673		649			1,343	1,303
Noncontrolling interests			66		68			131	137
Net earnings attributable to Berkshire Hathaway shareholders			\$ 607	\$	581			\$ 1.212	\$ 1.166
Effective income tax rate			(13.5)% (10.7)%)		(18.5)%	(21.4)%

Utilities and Energy ("Berkshire Hathaway Energy Company") (Continued)

PacifiCorp

PacifiCorp operates a regulated electric utility in portions of several Western states, including Utah, Oregon and Wyoming. Revenues in the second quarter of 2019 were \$1.2 billion, relatively unchanged from 2018, and were \$2.5 billion in the first six months, an increase of 3% over the first six months of 2018. Retail revenues in the first six months of 2019 increased \$83 million compared to 2018, reflecting a 1.4% increase in volumes and higher average rates (\$48 million) from lower net tax deferrals related to the TCJA (largely offset by higher income tax expense) and business mix changes. Wholesale and other revenues in the first six months of 2019 decreased \$34 million due to lower volumes.

Pre-tax earnings were \$206 million in the second quarter of 2019, a decline of \$6 million (3%) from 2018, and were \$428 million in the first six months, an increase of \$43 million (11%) as compared to 2018. Utility margin (operating revenues less cost of fuel and energy) was \$783 million in the second quarter of 2019, a decrease of 1% versus 2018, and \$1,577 million in the first six months, an increase of 2% compared to 2018. PacifiCorp's after-tax earnings were \$168 million in the second quarter of 2019, a decrease of \$17 million (9%) compared to 2018, and were \$348 million in the first six months of 2019, an increase of \$15 million (5%) over 2018. The changes reflected the changes in utility margin, higher depreciation and lower net interest and finance expenses.

MidAmerican Energy Company

MEC operates a regulated electric and natural gas utility primarily in Iowa and Illinois. Revenues were \$684 million in the second quarter of 2019, a decrease of 6% compared to 2018, and were \$1,556 million in the first six months, an increase of 4% versus 2018. Electric operating revenues decreased \$51 million in the second quarter of 2019 versus 2018. The decrease was attributable to lower retail revenues (\$38 million), reflecting a decrease in aggregate volumes of 3.7% and lower average rates from sales mix and lower recoveries through bill riders, and decreased wholesale and other revenue (\$13 million). For the second quarter of 2019, natural gas revenues decreased \$16 million compared to 2018, primarily due to decreased volumes. Electric operating revenues increased \$22 million in the first six months of 2019 versus 2018. The increase was attributable to higher retail revenues (\$17 million), reflecting an increase in aggregate volumes of 0.5% and higher average rates from higher recoveries through bill riders, substantially offset by sales mix.

Pre-tax earnings were \$53 million in the second quarter of 2019, a decline of \$3 million (5%) versus 2018, and were \$137 million in the first six months, an increase of \$41 million (43%) compared to 2018. Electric utility margin in the second quarter of 2019 decreased \$24 million (5%) to \$447 million and increased \$43 million (5%) in the first six months to \$875 million. MEC's after-tax earnings are greater than its pre-tax earnings due to the significant production tax credits related to its wind-powered generating facilities. MEC's after-tax earnings were \$153 million in the second quarter of 2019 and \$343 million in the first six months, increases of \$50 million (49%) and \$137 million (67%), respectively, compared to the same periods in 2018, reflecting increases in tax credits recognized.

NV Energy

NV Energy operates regulated electric and natural gas utilities in Nevada. Revenues were \$731 million in the second quarter and \$1,359 million in the first six months of 2019, decreases of 4% and 2%, respectively, compared to the same periods in 2018. Electric operating revenues decreased \$31 million in the second quarter and \$29 million in the first six months versus 2018. The decreases in electric revenues were attributable to lower retail revenue of \$35 million in the second quarter and \$45 million in the first six months, reflecting lower customer volumes of 3.9% in the second quarter and lower rates resulting from decreased pass-through cost adjustments and reductions related to the TCJA that were effective April 1, 2018, partially offset by increased wholesale and other revenue of \$4 million in the second quarter and \$16 million year-to-date compared to 2018.

Pre-tax earnings increased \$9 million (9%) in the second quarter and \$5 million (4%) in the first six months of 2019 as compared to 2018. Electric utility margin was \$394 million in the second quarter and \$716 million in the first six months of 2019, decreases of \$19 million and \$26 million, respectively, compared to 2018, primarily due to lower retail operating revenues. However, the declines in electric utility margin in 2019 were more than offset by lower operating expenses and lower net interest and finance expenses. NV Energy's after-tax earnings were \$81 million (5% increase) in the second quarter and \$110 million (unchanged) in the first six months of 2019 versus the corresponding 2018 periods.

Utilities and Energy ("Berkshire Hathaway Energy Company") (Continued)

Northern Powergrid

Revenues decreased \$4 million in the second quarter and \$16 million in the first six months of 2019 compared to 2018, primarily due to the unfavorable foreign currency translation effects of a stronger U.S. Dollar in 2019, partially offset by higher distribution and smart meter revenues. Pre-tax earnings increased \$30 million in the second quarter and \$20 million in the first six months of 2019 as compared to 2018, primarily due to pension settlement losses incurred in 2018, partly offset by lower revenues.

Natural gas pipelines

Revenues in the second quarter and first six months of 2019 declined \$23 million (10%) and \$26 million (4%), respectively, compared to 2018. The declines were primarily due to lower gas sales volumes related to system balancing activities at Northern Natural Gas (largely offset in cost of sales), partially offset by higher transportation revenues of \$16 million in the second quarter and \$27 million in the first six months. Pre-tax earnings were \$63 million in the second quarter and \$301 million in the first six months of 2019, increases of \$10 million (19%) and \$29 million (11%), respectively, compared to 2018. The increases were primarily due to the increases in transportation revenues and favorable margins from system rebalancing activities, partly offset by a comparative increase in operations and maintenance expenses.

Other energy businesses

Other energy revenues declined \$25 million (4%) in the second quarter and \$61 million (6%) in the first six months of 2019 as compared to the same periods in 2018. The declines included comparative year-to-date decreases of 9% from renewable energy and 4% at AltaLink, L.P., mainly due to the unfavorable foreign currency translation effects of a stronger U.S. Dollar in 2019. Pre-tax earnings decreased \$36 million in the second quarter and \$63 million in the first six months of 2019 compared to the same periods in 2018. Pre-tax losses from tax equity renewable energy investments in the second quarter and first six months of 2019 increased \$14 million and \$35 million, respectively, over 2018, largely attributable to new investments. The pre-tax losses from these investments are substantially offset by income tax benefits. Results in 2019 also included lower operating earnings from renewable energy, AltaLink and the non-regulated service business, attributable to higher operating and depreciation expenses from renewable energy, the stronger U.S. Dollar at AltaLink, L.P., and lower non-regulated service business margins. After-tax earnings from other energy activities were \$147 million in the second quarter and \$238 million in the first six months of 2019, decreases of \$10 million and \$16 million, respectively, versus 2018.

Real estate brokerage

Revenues increased 4% in both the second quarter and the first six months of 2019 compared to the same periods in 2018. The increases were attributable to recent business acquisitions and higher mortgage revenues, partly offset by an 8% year-to-date decrease in closed units at existing brokerage businesses. Pre-tax earnings increased 7% in the second quarter and decreased 6% in the first six months of 2019 compared to 2018. The year-to-date decrease was primarily due to lower earnings at existing brokerage businesses and increased interest expense, which more than offset the increase in mortgage net revenues and contributions from acquired businesses.

Corporate interest

Corporate interest includes interest on unsecured debt issued by the BHE holding company. Corporate interest in the first six months of 2019 increased 4% compared to 2018, primarily due to higher average borrowings.

Income taxes

BHE's effective income tax rates for the first six months of 2019 and 2018 were approximately (18.5%) and (21.4%), respectively. BHE's effective income tax rates regularly reflect significant production tax credits from wind-powered electricity generation placed in service by our domestic regulated utilities and other energy businesses. The effective tax rate in the first six months of 2019 increased primarily due to benefits recognized in 2018 related to foreign earnings and the accrued repatriation tax on undistributed foreign earnings in connection with the TCJA, partially offset by an increase in recognized production tax credits and favorable impacts of rate making in 2019.

Manufacturing, Service and Retailing

A summary of revenues and earnings of our manufacturing, service and retailing businesses follows (dollars in millions).

		Second	Quarter		First Six Months						
	Reve	enues	Earniı	ngs *	Reve	enues	Earni	ngs *			
	2019	2018	2019	2018	2019	2018	2019	2018			
Manufacturing	\$16,206	\$15,927	\$ 2,527	\$ 2,529	\$31,276	\$30,649	\$ 4,721	\$ 4,736			
Service and retailing	19,873	19,734	804	830	39,097	38,738	1,536	1,463			
	\$36,079	\$35,661			\$70,373	\$69,387					
Pre-tax earnings			3,331	3,359			6,257	6,199			
Income taxes and noncontrolling interests			844	873			1,570	1,586			
			\$ 2,487	\$ 2,486			\$ 4,687	\$ 4,613			
Effective income tax rate			24.7%	25.5%			24.6%	25.1%			

^{*} Excludes certain acquisition accounting expenses, which were primarily from the amortization of identified intangible assets recorded in connection with our business acquisitions. The after-tax acquisition accounting expenses excluded from earnings in the preceding table were \$188 million in the second quarter and \$380 million in first six months of 2019, compared to \$220 million in the second quarter and \$438 million in the first six months of 2018. These expenses are included in "Other" in the summary of earnings on page 27 and in the "Other" earnings section on page 44.

Manufacturing

Our manufacturing group includes a variety of industrial, building and consumer products businesses. The industrial products group includes specialty chemicals (The Lubrizol Corporation ("Lubrizol")), complex metal products for aerospace, power and general industrial markets (Precision Castparts Corp. ("PCC")), metal cutting tools/systems (IMC International Metalworking Companies ("IMC")), equipment and systems for the livestock and agricultural industries (CTB International ("CTB")), and a variety of industrial products for diverse markets (Marmon, Scott Fetzer and LiquidPower Specialty Products ("LSPI")). Marmon includes UTLX Company ("UTLX"), which provides various products and services (including equipment leasing) for the rail and mobile crane industries.

The building products group includes homebuilding and manufactured housing finance (Clayton Homes), flooring (Shaw), insulation, roofing and engineered products (Johns Manville), bricks and masonry products (Acme Building Brands), paint and coatings (Benjamin Moore) and residential and commercial construction and engineering products and systems (MiTek). The consumer products group includes leisure vehicles (Forest River), several apparel and footwear operations (including Fruit of the Loom, Garan, H.H. Brown Shoe Group and Brooks Sports) and the Duracell Company ("Duracell"), a manufacturer of high performance alkaline batteries. This group also includes custom picture framing products (Larson Juhl) and jewelry products (Richline). A summary of revenues and pre-tax earnings of our manufacturing operations follows (dollars in millions).

		Second	Quarter		First Six Months						
	Reve	enues	Pre-tax	earnings	Reve	enues	Pre-tax earnings				
	2019	2018	2019	2018	2019	2018	2019	2018			
Industrial products	\$ 7,887	\$ 7,851	\$ 1,552	\$ 1,564	\$15,564	\$ 15,470	\$ 2,983	\$ 3,032			
Building products	5,369	4,850	726	649	9,931	8,930	1,208	1,096			
Consumer products	2,950	3,226	249	316	5,781	6,249	530	608			
	\$16,206	\$15,927	\$ 2,527	\$ 2,529	\$31,276	\$30,649	\$ 4,721	\$ 4,736			

Aggregate revenues of our manufacturing businesses in the second quarter of 2019 were \$16.2 billion, an increase of 1.8% compared to 2018 and in the first six months were \$31.3 billion, an increase of 2.0%. Pre-tax earnings in the second quarter and first six months of 2019 were \$2.5 billion and \$4.7 billion, respectively, slightly lower than earnings in the comparable 2018 periods.

Manufacturing, Service and Retailing (Continued)

Industrial products

Revenues of the industrial products group were \$7.9 billion in the second quarter and \$15.6 billion in the first six months of 2019, increases of 0.5% and 0.6%, respectively, over revenues in the comparable 2018 periods. Pre-tax earnings of the group were \$1.55 billion in the second quarter and \$3.0 billion in the first six months of 2019, decreases of 0.8% and 1.6% compared to the second quarter and first six months of 2018, respectively. Pre-tax earnings as a percentage of revenues for the group were 19.2% in the first six months of 2019 compared to 19.6% in 2018.

PCC's revenues were \$2.6 billion in the second quarter and \$5.2 billion in the first six months of 2019, increases of \$32 million (1.2%) and \$111 million (2.2%) compared to 2018. The increases reflected higher demand in aerospace markets in connection with new aircraft programs, partly offset by lower industrial gas turbine products sales and lower sales of certain pipe products, primarily attributable to U.S tariffs.

PCC's pre-tax earnings increased 10.7% in the second quarter and 7.1% in the first six months of 2019 compared to 2018. The earnings increases reflected higher earnings from aerospace products and the impact of costs incurred in 2018 related to the temporary unplanned shutdown of certain metals facilities and metal press outages, partially offset by lower earnings from industrial gas turbine business. While demand for aerospace products continues to be relatively high, we have incurred incremental production and other costs to meet required deliveries to customers, which has negatively affected margins and earnings. However, we expect costs will gradually decline as we increase production capacity where needed and further improve processes and reduce inefficiencies.

Lubrizol's revenues were \$1.7 billion in the second quarter and \$3.4 billion in the first six months of 2019, decreases of \$76 million (4.3%) and \$139 million (3.9%), respectively, as compared to 2018. The declines were primarily due to lower volumes and unfavorable foreign currency translation effects, partly offset by higher average selling prices, which were necessitated by raw material cost increases in 2018 and the first quarter of 2019. Lubrizol's consolidated volume in the second quarter and first six months of 2019 declined 3% and 4%, respectively, from 2018, reflecting reduced volumes in both the Additives and Advanced Materials product lines.

Lubrizol's pre-tax earnings decreased 1.3% in the second quarter and 3.2% in the first six months of 2019 compared to 2018. Earnings in the second quarter and first six months of 2019 were negatively affected by lower sales volumes, unfavorable foreign currency translation effects and increased operating expenses, which were partly offset by improved margins.

Marmon's revenues were \$2.16 billion in the second quarter and \$4.15 billion in the first six months of 2019, increases of \$59 million (2.8%) and \$81 million (2.0%), respectively, as compared to 2018. The increases reflected higher volumes in the Retail Solutions and Electrical Products sectors, increased volumes in railcar repair services in the second quarter, increased volumes in the Transportation Products sector (primarily in the first quarter) and the effects of business acquisitions. These increases were partly offset by lower distribution volumes in the Metals Services sector, unfavorable foreign currency translation effects and the divestiture of an aftermarket parts product line in the Food & Beverage sector in the second quarter of 2018.

Marmon's pre-tax earnings in the second quarter and first six months of 2019 decreased \$52 million (13.4%) and \$62 million (8.9%), respectively, compared to 2018. Pre-tax earnings as a percentage of sales fell to 15.3% in the first six months of 2019 as compared to 17.1% in 2018. Pre-tax earnings in the 2018 periods included a gain of \$44 million realized on the divestiture in the Food & Beverage sector. In 2019, we also experienced lower earnings attributable to lower rail tank car leasing rates coupled with higher rail tank car maintenance expenses in the Rail Products & Leasing sector and declines in the Metals Services and Industrial Products sectors, which were partially offset by earnings increases in the Water, Transportation Products and Retail Solutions sectors and from business acquisitions.

IMC's revenues in the second quarter and first six months of 2019 declined 2.3% and 1.7%, respectively, versus the corresponding 2018 periods, reflecting increased revenues from recent business acquisitions, offset by unfavorable foreign currency translation effects of a stronger U.S. Dollar. IMC's pre-tax earnings declined 10% in the first six months of 2019 versus 2018, attributable to increased average raw material costs, unfavorable foreign currency translation effects and changes in business mix.

CTB's revenues in the second quarter and first six months of 2019 increased 4.2% and 4.1%, respectively, versus the same periods in 2018, primarily due to increased revenues from protein equipment and processing systems, partially offset by unfavorable foreign currency translation effects of a stronger U.S. Dollar. CTB's pre-tax earnings in the second quarter and first six months of 2019 increased 41% and 29% versus 2018, primarily due to the revenue increases, moderation of average costs of certain raw materials, better pricing efficiency and ongoing efforts to control operating expenses.

Manufacturing, Service and Retailing (Continued)

Building products

Revenues of the building products group were \$5.4 billion in the second quarter and \$9.9 billion in the first six months of 2019, increases of \$519 million (10.7%) and \$1.0 billion (11.2%), respectively, compared to second quarter and first six months of 2018. Pre-tax earnings of the group were \$726 million in the second quarter and \$1.2 billion in the first six months of 2019, increases of 11.9% and 10.2%, respectively, over 2018. Pre-tax earnings represented 12.2% and 12.3% of revenues in the first six months of 2019 and 2018, respectively.

Clayton Homes revenues were approximately \$1.9 billion in the second quarter and \$3.4 billion in the first six months of 2019, increases of \$382 million (25%) and \$689 million (25%), respectively, over the same periods in 2018. The comparative increases were primarily due to increased home sales of \$346 million (31%) in the second quarter and \$627 million (32%) year-to-date and a 7% year-to-date increase in interest income from lending activities. The sales increase reflected changes in sales mix. Unit sales of site built homes increased 142% in the second quarter and 148% in the first six months of 2019 over 2018, primarily due to business acquisitions, while manufactured homes sold at retail and wholesale declined 3% in the second quarter and 6% in the first six months of 2019. The increase in income from lending activities was attributable to increased average outstanding loan balances. As of June 30, 2019, aggregate loan balances outstanding were approximately \$15.2 billion, compared to \$14.2 billion as of June 30, 2018.

Pre-tax earnings of Clayton Homes were \$282 million in the second quarter and \$497 million in the first six months of 2019, increases of \$48 million (20%) and \$68 million (16%), respectively, compared to 2018. The increases were primarily attributable to home building activities, which reflected the increases in home sales. A significant part of Clayton Homes' earnings derives from manufactured housing lending activities. Pre-tax earnings from lending and finance activities in the first six months of 2019 increased 2% compared to 2018, reflecting increased interest income and other financial services income, substantially offset by higher interest expense, attributable to higher average borrowings and interest rates, and to higher operating costs.

Aggregate revenues of our other building products businesses increased \$138 million (4%) in the second quarter and \$312 million (5%) in the first six months of 2019 versus 2018. These increases were primarily attributable to higher hard surface flooring products and roofing systems volumes and generally higher average prices, partly offset by lower carpet volumes. Additionally, the increases in average selling prices of these businesses were in response to rising raw material and other production costs over the past year.

Pre-tax earnings of the other building products businesses were \$445 million in the second quarter and \$711 million in the first six months of 2019, increases of 7%, respectively, over the corresponding 2018 periods. The ratio of pre-tax earnings to revenues in the first six months of 2019 was relatively unchanged compared to 2018. As previously noted, rising raw material and production cost increases prevailed over the past year. In particular, the cost increases for steel, titanium dioxide, and certain petrochemicals were significant. Over the first half of 2019, these cost increases moderated.

Consumer products

Consumer products revenues were \$2.95 billion in the second quarter and \$5.8 billion in the first six months of 2019, decreases of \$276 million (8.6%) and \$468 million (7.5%), respectively, versus 2018. Revenues in 2019 declined at Forest River, Duracell and the apparel and footwear businesses. Revenues of Forest River declined 11% in the second quarter and 13% in the first six months versus 2018, primarily attributable to lower unit sales. Revenues of Duracell declined 7% in the first six months of 2019 compared to the prior year period, primarily attributable to customers delaying orders to the third quarter of 2019, lower sales in certain foreign markets and the unfavorable effects of foreign currency translation. Apparel and footwear revenues in the second quarter and first six months of 2019 declined 7% and 1%, respectively, compared to 2018. The declines reflected the unexpected product shipping delays associated with a Brooks Sports distribution center that opened in the second quarter of 2019, which contributed to a 32% comparative decline in its second quarter revenues.

Consumer products pre-tax earnings were \$249 million in the second quarter and \$530 million in the first six months of 2019, decreases of \$67 million (21.2%) and \$78 million (12.8%), respectively, compared to 2018. Pre-tax earnings as a percentage of revenues for the first six months were 9.2% in 2019 and 9.7% in 2018. The declines in pre-tax earnings were primarily attributable to Forest River, Brooks Sports, and Duracell.

Manufacturing, Service and Retailing (Continued)

Service and retailing

A summary of revenues and pre-tax earnings of our service and retailing businesses follows (in millions).

		Second	First Six Months									
	Revenues			Pre-tax	earni	ings	Reve	Pre-tax earnings			ings	
	2019	2018		2019 2018		2019	2018	2019		2018		
Service	\$ 3,436	\$ 3,378	\$	502	\$	533	\$ 6,854	\$ 6,551	\$	974	\$	948
Retailing	4,026	3,929		243		230	7,633	7,571		392		388
McLane Company	12,411	12,427		59		67	24,610	24,616		170		127
	\$19,873	\$19,734	\$	804	\$	830	\$39,097	\$38,738	\$	1,536	\$	1,463

Service

Our service business group offers fractional ownership programs for general aviation aircraft (NetJets) and high technology training to operators of aircraft (FlightSafety). We also distribute electronic components (TTI), franchise and service a network of quick service restaurants (Dairy Queen) and offer third party logistics services that primarily serve the petroleum and chemical industries (Charter Brokerage). Other service businesses include transportation equipment leasing (XTRA) and furniture leasing (CORT), electronic news distribution, multimedia and regulatory filings (Business Wire), publication of newspapers and other publications (Buffalo News and the BH Media Group) and operation of a television station in Miami, Florida (WPLG).

Service group revenues were \$3.44 billion in the second quarter and \$6.85 billion in the first six months of 2019, increases of \$58 million (1.7%) and \$303 million (4.6%), respectively, as compared to 2018. Revenues of TTI increased 2.3% in the second quarter and 8.5% in the first six months of 2019, attributable to increased demand for electronic components in the first quarter and the effects of business acquisitions, partly offset by foreign currency translation effects of a stronger average U.S. Dollar. TTI's revenues slowed considerably in the second quarter, attributable to reduced customer demand and lower sales prices. We currently believe demand and revenues in the third quarter of 2019 will be somewhat lower than in 2018.

The comparative increases in service revenues in 2019 also reflected modest increases at NetJets and our other leasing businesses and decreases in the media businesses and Charter Brokerage, which is curtailing a high revenue, low margin business. The increases in NetJets revenues were primarily due to increases in the number of aircraft on lease and flight hours.

Pre-tax earnings of the service group were \$502 million in the second quarter of 2019, a decrease of \$31 million (5.8%) compared to 2018, and \$974 million in the first six months, an increase of \$26 million (2.7%) over the first six months of 2018. Pre-tax earnings of the group as a percentage of revenues were 14.2% in the first six months of 2019 compared to 14.5% in 2018. The decline in earnings for the second quarter was primarily due to lower earnings from TTI, attributable to generally lower sales margins and increased operating expenses. The decrease was partly offset by increased earnings from NetJets, primarily attributable to increased revenues and improved operating margins. The year-to-date increase primarily reflected increased earnings from NetJets partly offset by lower earnings from TTI.

Manufacturing, Service and Retailing (Continued)

Retailing

Our retailers include Berkshire Hathaway Automotive ("BHA"). BHA includes over 80 auto dealerships that sell new and preowned automobiles and offer repair services and related products. BHA also operates two insurance businesses, two auto auctions and an automotive fluid maintenance products distributor. Our retailing businesses also include four home furnishings retailing businesses (Nebraska Furniture Mart, R.C. Willey, Star Furniture and Jordan's), which sell furniture, appliances, flooring and electronics.

Other retailing businesses include three jewelry businesses (Borsheims, Helzberg and Ben Bridge), See's Candies (confectionary products), Pampered Chef (high quality kitchen tools), Oriental Trading Company (party supplies, school supplies and toys and novelties) and Detlev Louis Motorrad ("Louis"), a Germany-based retailer of motorcycle accessories.

Retailing group revenues were \$4.0 billion in the second quarter and \$7.6 billion in the first six months of 2019, increases of \$97 million (2.5%) and \$62 million (0.8%), respectively, compared to 2018. BHA's revenues, which represented approximately 64% of our aggregate retailing revenues, increased 3.4% in the second quarter and 2.3% in the first six months of 2019, as compared to 2018. BHA's revenue increases reflected year-to-date increases in pre-owned vehicle sales of 9% and revenues from finance and service contract activities and vehicle repair work of 7%, partly offset by a 3% reduction in new auto sales.

Revenues of our home furnishings businesses declined 3% in the first six months of 2019 versus 2018, attributable to soft consumer demand and unfavorable weather in certain regions. Revenues of See's Candies increased 43% in the second quarter of 2019 and 3% in the first six months as compared to 2018, primarily attributable to the seasonal effects of the timing of the Easter holiday.

Retail group pre-tax earnings were \$243 million in the second quarter and \$392 million in the first six months of 2019, increases of 5.7% and 1.0%, respectively, over the comparable 2018 periods. Comparative pre-tax earnings of BHA increased 20% in the second quarter and 26% in the first six months of 2019, primarily due to finance and service contract activities and increased investment income, partly offset by higher floorplan interest expense.

Pre-tax earnings in the first six months of 2019 from our home furnishings businesses declined 23% versus 2018, reflecting lower revenues and generally higher operating expenses. Pre-tax earnings of See's Candies increased in the second quarter of 2019 compared to 2018, attributable to the revenue increase previously noted.

McLane Company

McLane operates a wholesale distribution business that provides grocery and non-food consumer products to retailers and convenience stores ("grocery") and to restaurants ("foodservice"). McLane also operates businesses that are wholesale distributors of distilled spirits, wine and beer ("beverage"). The grocery and foodservice businesses generate high sales and very low profit margins. These businesses have several significant customers, including Walmart, 7-Eleven, Yum! Brands and others. Grocery sales comprise approximately two-thirds of McLane's consolidated sales with food service comprising most of the remainder. A curtailment of purchasing by any of its significant customers could have an adverse impact on periodic revenues and earnings.

Revenues were \$12.4 billion in the second quarter and \$24.6 billion in the first six months of 2019, relatively unchanged from the corresponding 2018 periods. Revenues in the first six months of 2019 included a 2% decrease in grocery sales and a 4% increase in foodservice sales as compared to 2018. Pre-tax earnings were \$59 million in the second quarter, a decrease of \$8 million (12%) compared to 2018 and \$170 million in the first six months of 2019, an increase of \$43 million (34%) over 2018. Earnings in the second quarter of 2019 were reduced by an increase in LIFO inventory valuation allowances, which partially offset the effects of lower LIFO inventory valuation allowances in the first quarter. Results in 2019 also included increased average gross sales margins, partly offset by increased operating expenses, which were primarily employee-related costs. McLane continues to operate in an intensely competitive business environment, which is negatively affecting its current operating results and contributing to low operating margin rates. We expect these operating conditions will continue over the remainder of 2019.

Investment and Derivative Gains/Losses

A summary of investment and derivative gains/losses follows (dollars in millions).

	Second Quarter					First Six Months				
		2019		2018	2019			2018		
Investment gains (losses)	\$	9,835	\$	5,990	\$	29,387	\$	(1,819)		
Derivative gains (losses)		213		372		983		166		
Gains (losses) before income taxes and noncontrolling interests		10,048		6,362		30,370		(1,653)		
Income taxes and noncontrolling interests		2,114		1,244		6,330		(345)		
Net gains (losses)	\$	7,934	\$	5,118	\$	24,040	\$	(1,308)		
Effective income tax rate		21.0%	,	19.9%		20.8%		18.3%		

Investment gains/losses

Due to a new accounting pronouncement adopted as of January 1, 2018, pre-tax investment gains/losses reported in earnings include unrealized gains and losses arising from changes in market prices of investments in equity securities. Pre-tax investment gains included net unrealized gains of approximately \$9.8 billion in the second quarter and \$29.2 billion in the first six months of 2019 attributable to equity securities we still held at June 30, 2019. By comparison, we recorded pre-tax investment gains of approximately \$5.6 billion in the second quarter and pre-tax losses of approximately \$2.1 billion in the first six months of 2018 with respect to equity securities we still held at June 30, 2018.

Prior to 2018, investment gains/losses on equity securities were recorded when securities were sold based on the cost of the disposed securities. While the new accounting standard does not change the effect on our consolidated shareholders' equity or total comprehensive income, it has significantly increased the volatility of our periodic net earnings due to the magnitude of our equity securities portfolio and the inherent volatility of equity securities prices. Investment gains/losses from periodic changes in securities prices will continue to cause significant volatility in our consolidated earnings.

We believe that investment gains/losses, whether realized from sales or unrealized from changes in market prices, are often meaningless in terms of understanding our reported consolidated earnings or evaluating our periodic economic performance. We continue to believe the amount of investment gains/losses included in earnings, including the changes in market prices for equity securities in any given period, has little analytical or predictive value.

Derivative gains/losses

Derivative contract gains/losses include the changes in fair value of our equity index put option contract liabilities. These liabilities relate to contracts entered into before March 2008. Substantially all of these contracts will expire between August 2019 and February 2023. The periodic changes in the fair values of these liabilities are recorded in earnings and can be significant, reflecting the volatility of underlying equity markets and the changes in the inputs used to measure such liabilities.

As of June 30, 2019, the intrinsic value of our equity index put option contracts was \$791 million and our recorded liabilities at fair value were \$1.47 billion. Our ultimate payment obligations, if any, under our contracts will be determined as of the contract expiration dates based on the intrinsic value as defined under the contracts. Contracts with an aggregate notional value of \$2.2 billion expired in the second quarter of 2019. Contracts with an aggregate notional value of \$10.0 billion will expire over the remainder of 2019. There were no settlement payments required with respect to the contracts that expired in 2019.

Pre-tax gains from equity index put option contracts were \$213 million in the second quarter and \$983 million in the first six months of 2019 compared to pre-tax gains of \$372 million in the second quarter and \$166 million in the first six months of 2018. The gains in 2019 were primarily due to higher equity index values and shorter average remaining contract durations.

A summary of after-tax other earnings/losses follows (in millions).

	Second Quarter					ths		
	2019		2018		2019			2018
Equity method earnings	\$	131	\$	285	\$	297	\$	625
Acquisition accounting expenses		(188)		(220)		(380)		(438)
Corporate interest expense, before foreign currency effects		(72)		(82)		(146)		(159)
Foreign currency exchange rate gains (losses) on Berkshire								
and BHFC non-U.S. Dollar senior notes		(87)		323		47		160
Income tax expense adjustment		_		_		(377)		_
Other		204		126		418		256
Net earnings (losses) attributable to Berkshire Hathaway shareholders	\$	(12)	\$	432	\$	(141)	\$	444

After-tax equity method earnings include Berkshire's share of earnings attributable to Kraft Heinz, Pilot Flying J, Berkadia and Electric Transmission of Texas. As discussed in Note 5 to the accompanying unaudited interim Consolidated Financial Statements, financial statements of Kraft Heinz for the first and second quarters of 2019 were not made available to us. Accordingly, our consolidated financial statements do not include our share of Kraft Heinz's earnings for those periods. After-tax equity method earnings related to our Kraft Heinz investment were \$187 million in the second quarter and \$421 million in the first six months of 2018.

After-tax acquisition accounting expenses include charges arising from the application of the acquisition method in connection with certain of Berkshire's past business acquisitions. Such charges arise primarily from the amortization or impairment of intangible assets recorded in connection with those business acquisitions.

The aggregate par amount of Berkshire's outstanding Euro denominated debt was €6.85 billion during the first six months of 2019 and 2018. In addition, BHFC issued debt of £1.75 billion par amount on June 19, 2019. Changes in foreign currency exchange rates produced non-cash unrealized gains and losses from the periodic revaluation of these liabilities into U.S. Dollars.

The income tax expense adjustment in the first six months of 2019 relates to investments that we made between 2015 and 2018 in certain tax equity investment funds. Our investments in these funds aggregated approximately \$340 million. In December 2018 and during the first quarter of 2019, we learned of allegations by federal authorities of fraudulent income conduct by the sponsor of these funds. As a result of our investigation into these allegations, we now believe that it is more likely than not that the income tax benefits that we recognized are not valid.

Financial Condition

Our consolidated balance sheet continues to reflect significant liquidity and a strong capital base. Consolidated shareholders' equity at June 30, 2019 was \$382.5 billion, an increase of \$33.8 billion since December 31, 2018. Net earnings attributable to Berkshire shareholders in the first six months of 2019 were \$35.7 billion, which included after-tax gains on our investments of approximately \$23.3 billion, which was primarily due to increases in market prices of the equity securities we owned at June 30, 2019.

At June 30, 2019, our insurance and other businesses held cash, cash equivalents and U.S. Treasury Bills of \$119.1 billion, which included \$93.9 billion in U.S. Treasury Bills. Investments in equity and fixed maturity securities (excluding our investment in Kraft Heinz) were \$220.5 billion.

Berkshire parent company debt outstanding at June 30, 2019 was \$16.8 billion, relatively unchanged since December 31, 2018. Berkshire parent company debt of \$750 million matures in August 2019.

Berkshire's insurance and other subsidiary outstanding borrowings were \$19.2 billion at June 30, 2019, which included senior note borrowings of BHFC, a wholly-owned financing subsidiary, of \$12.1 billion. BHFC's borrowings are used to fund loans originated and acquired by Clayton Homes and a portion of assets held for lease by our UTLX railcar leasing business. In the first quarter of 2019, BHFC repaid \$2.7 billion of maturing senior notes and issued \$2.0 billion of 4.25% senior notes due in 2049. In June 2019, BHFC also issued £1.0 billion of 2.375% senior notes due in 2039 and £750 million of 2.625% senior notes due in 2059. BHFC senior notes of \$1.25 billion will mature in August 2019. Berkshire guarantees the full and timely payment of principal and interest with respect to BHFC's senior notes.

Financial Condition (Continued)

Our railroad, utilities and energy businesses (conducted by BNSF and BHE) maintain very large investments in capital assets (property, plant and equipment) and will regularly make significant capital expenditures in the normal course of business. Capital expenditures of these two operations in the first six months of 2019 were \$4.3 billion and we forecast additional capital expenditures of approximately \$7.0 billion over the remainder of 2019.

BNSF's outstanding debt was \$23.2 billion as of June 30, 2019, which was substantially unchanged since December 31, 2018. BNSF debentures of \$750 million will mature in October 2019. In July 2019, BNSF issued \$825 million of 3.55% senior unsecured debentures due in 2050. Outstanding borrowings of BHE and its subsidiaries were \$40.7 billion at June 30, 2019, an increase of \$1.4 billion since December 31, 2018. In the first six months of 2019, BHE and its subsidiaries issued debt aggregating \$3.4 billion with maturity dates ranging from 2029 to 2050 and repaid approximately \$1.7 billion of maturing term debt. The proceeds from these financings were used to repay borrowings, to fund capital expenditures and for other general corporate purposes. BHE subsidiary term debt of \$427 million will mature over the remainder of 2019. Berkshire does not guarantee the repayment of debt issued by BNSF, BHE or any of their subsidiaries and is not committed to provide capital to support BNSF, BHE or any of their subsidiaries.

Berkshire's common stock repurchase program was amended on July 17, 2018, permitting Berkshire to repurchase its Class A and Class B shares at prices below Berkshire's intrinsic value, as conservatively determined by Warren Buffett, Berkshire's Chairman of the Board and Chief Executive Officer, and Charlie Munger, Vice Chairman of the Board. The program allows share repurchases in the open market or through privately negotiated transactions and does not specify a maximum number of shares to be repurchased. The program is expected to continue indefinitely. We will not repurchase our stock if it reduces the total amount of Berkshire's consolidated cash, cash equivalents and U.S. Treasury Bills holdings below \$20 billion. Financial strength and redundant liquidity will always be of paramount importance at Berkshire. In the first six months of 2019, Berkshire repurchased shares of Class A and B common stock for an aggregate cost of \$2.1 billion.

Contractual Obligations

We are party to contracts associated with ongoing business and financing activities, which will result in cash payments to counterparties in future periods. Certain obligations are included in our Consolidated Balance Sheets, such as notes payable, which require future payments on contractually specified dates and in fixed and determinable amounts. Other obligations pertaining to the acquisition of goods or services in the future are not currently reflected in the financial statements, which will be recognized in future periods as the goods are delivered or services are provided. Beginning in 2019, operating lease obligations are included in the consolidated balance sheet due to the adoption of a new accounting pronouncement. The timing and amount of the payments under certain contracts, such as insurance and reinsurance contracts, are contingent upon the outcome of future events. Actual payments will likely vary, perhaps materially, from the estimated liabilities currently recorded in our Consolidated Balance Sheet.

As disclosed in Note 23 to the accompanying Interim Consolidated Financial Statements, we are committed to invest \$10 billion in newly issued preferred stock and common stock warrants of Occidental Petroleum Corporation, subject to the completion of its pending acquisition of Anadarko Petroleum Corporation. In the first six months of 2019, Berkshire subsidiaries issued new term debt. Principal and interest payments associated with these new borrowings are expected as follows: 2019-\$121 million; 2020-2021-\$541 million; 2022-2023-\$541 million; and thereafter-\$13.4 billion.

Except as otherwise disclosed in this Quarterly Report, our contractual obligations as of June 30, 2019 were, in the aggregate, not materially different from those disclosed in the "Contractual Obligations" section of "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in Berkshire's Annual Report on Form 10-K for the year ended December 31, 2018.

Critical Accounting Policies

Certain accounting policies require us to make estimates and judgments that affect the amounts reflected in the Consolidated Financial Statements. Such estimates and judgments necessarily involve varying, and possibly significant, degrees of uncertainty. Accordingly, certain amounts currently recorded in the financial statements will likely be adjusted in the future based on new available information and changes in other facts and circumstances. Reference is made to "Critical Accounting Policies" discussed in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Berkshire's Annual Report on Form 10-K for the year ended December 31, 2018.

Critical Accounting Policies (Continued)

Our Consolidated Balance Sheet as of June 30, 2019 includes estimated liabilities for unpaid losses and loss adjustment expenses from property and casualty insurance and reinsurance contracts of \$112.3 billion. Due to the inherent uncertainties in the process of establishing loss reserve amounts, the actual ultimate claim amounts will likely differ from the currently recorded amounts. A very small percentage change in estimates of this magnitude will result in a material effect on periodic earnings. The effects from changes in these estimates are recorded as a component of insurance losses and loss adjustment expenses in the period of the change.

Our Consolidated Balance Sheet as of June 30, 2019 includes goodwill of acquired businesses of \$81.3 billion. We evaluate goodwill for impairment at least annually and we conducted our most recent annual review during the fourth quarter of 2018. Although we believe that the goodwill reflected in the Consolidated Balance Sheet is not impaired, goodwill may subsequently become impaired due to changes in facts and circumstances affecting the valuation of the reporting unit. A goodwill impairment charge could have a material effect on periodic earnings.

Information concerning new accounting pronouncements is included in Note 2 to the accompanying Consolidated Financial Statements.

Forward-Looking Statements

Investors are cautioned that certain statements contained in this document as well as some statements in periodic press releases and some oral statements of Berkshire officials during presentations about Berkshire or its subsidiaries are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 (the "Act"). Forward-looking statements include statements which are predictive in nature, which depend upon or refer to future events or conditions, which include words such as "expects," "anticipates," "intends," "plans," "believes," "estimates" or similar expressions. In addition, any statements concerning future financial performance (including future revenues, earnings or growth rates), ongoing business strategies or prospects and possible future Berkshire actions, which may be provided by management, are also forward-looking statements as defined by the Act. Forward-looking statements are based on current expectations and projections about future events and are subject to risks, uncertainties and assumptions about Berkshire and its subsidiaries, economic and market factors and the industries in which we do business, among other things. These statements are not guarantees of future performance and we have no specific intention to update these statements.

Actual events and results may differ materially from those expressed or forecasted in forward-looking statements due to a number of factors. The principal risk factors that could cause our actual performance and future events and actions to differ materially from such forward-looking statements include, but are not limited to, changes in market prices of our investments in fixed maturity and equity securities, losses realized from derivative contracts, the occurrence of one or more catastrophic events, such as an earthquake, hurricane, act of terrorism or cyber attack that causes losses insured by our insurance subsidiaries and/or losses to our business operations, changes in laws or regulations affecting our insurance, railroad, utilities and energy and finance subsidiaries, changes in federal income tax laws, and changes in general economic and market factors that affect the prices of securities or the industries in which we do business.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Reference is made to Berkshire's most recently issued Annual Report and in particular the "Market Risk Disclosures" included in "Management's Discussion and Analysis of Financial Condition and Results of Operations." As of June 30, 2019, there were no material changes in the market risks described in Berkshire's Annual Report on Form 10-K for the year ended December 31, 2018.

Item 4. Controls and Procedures

As of the end of the period covered by this Quarterly Report on Form 10-Q, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Chairman (Chief Executive Officer) and the Senior Vice President (Chief Financial Officer), of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Exchange Act Rule 13a-15. Based upon that evaluation, the Chairman (Chief Executive Officer) and the Senior Vice President (Chief Financial Officer) concluded that the Company's disclosure controls and procedures are effective in timely alerting them to material information relating to the Company (including its consolidated subsidiaries) required to be included in the Company's periodic SEC filings. During the quarter, there have been no significant changes in the Company's internal control over financial reporting or in other factors that could significantly affect internal control over financial reporting.

Part II Other Information

Item 1. Legal Proceedings

Berkshire and its subsidiaries are parties in a variety of legal actions that routinely arise out of the normal course of business, including legal actions seeking to establish liability directly through insurance contracts or indirectly through reinsurance contracts issued by Berkshire subsidiaries. Plaintiffs occasionally seek punitive or exemplary damages. We do not believe that such normal and routine litigation will have a material effect on our consolidated financial condition or results of operations. Berkshire and certain of its subsidiaries are also involved in other kinds of legal actions, some of which assert or may assert claims or seek to impose fines and penalties. We believe that any liability that may arise as a result of other pending legal actions will not have a material effect on our consolidated financial condition or results of operations.

Item 1A. Risk Factors

Our significant business risks are described in Item 1A to Form 10-K for the year ended December 31, 2018 to which reference is made herein.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds and Issuer Repurchases of Equity Securities

For several years, Berkshire had a common stock repurchase program, which permitted Berkshire to repurchase its Class A and Class B shares at prices no higher than a 20% premium over the book value of the shares. On July 17, 2018, Berkshire's Board of Directors authorized an amendment to the program, permitting Berkshire to repurchase shares any time that Warren Buffett, Berkshire's Chairman of the Board and Chief Executive Officer, and Charles Munger, Vice Chairman of the Board, believe that the repurchase price is below Berkshire's intrinsic value, conservatively determined. Repurchases may be in the open market or through privately negotiated transactions. Information with respect to Berkshire's Class A and Class B common stock repurchased during the second quarter of 2019 follows.

<u>Period</u>	Total number of shares purchased	verage price aid per share	Total number of shares purchased as part of publicly announced program	Maximum number or value of shares that yet may be repurchased under the program
April 1 through April 10:				
Class A common stock	226	\$ 305,872.16	226	*
May 28 through May 31:				
Class B common stock	1,032,233	\$ 198.90	1,032,233	*
June 3 through June 26:				
Class A common stock	55	\$ 311,292.99	55	*
Class B common stock	733,907	\$ 205.16	733,907	*

^{*} The program does not specify a maximum number of shares to be repurchased or obligate Berkshire to repurchase any specific dollar amount or number of Class A or Class B shares and there is no expiration date to the repurchase program. Berkshire will not repurchase its common stock if the repurchases reduce the total value of Berkshire's consolidated cash, cash equivalents and U.S. Treasury Bills holdings to less than \$20 billion.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

Information regarding the Company's mine safety violations and other legal matters disclosed in accordance with Section 1503(a) of the Dodd-Frank Reform Act is included in Exhibit 95 to this Form 10-Q.

Item 5. Other Information

None

Item 6. Exhibits

- a. Exhibits
- 3(i) Restated Certificate of Incorporation
 Incorporated by reference to Exhibit 3(i) to Form 10-K filed on March 2, 2015.
- 3(ii) By-Laws

Date: August 3, 2019

Incorporated by reference to Exhibit 3(ii) to Form 8-K filed on August 4, 2016.

- 31.1 Rule 13a-14(a)/15d-14(a) Certifications
- 31.2 Rule 13a-14(a)/15d-14(a) Certifications
- 32.1 Section 1350 Certifications
- 32.2 Section 1350 Certifications
- 95 Mine Safety Disclosures
- The following financial information from Berkshire Hathaway Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, formatted in iXBRL (Inline Extensible Business Reporting Language) includes: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Earnings, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Cash Flows, and (vi) the Notes to Consolidated Financial Statements, tagged in summary and detail.

SIGNATURE

Pursuant to the requirement of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned thereunto duly authorized.

BERKSHIRE HATHAWAY INC. (Registrant)

/S/ Marc D. Hamburg

(Signature)
Marc D. Hamburg,
Senior Vice President and
Principal Financial Officer

Quarter ended June 30, 2019

Rule 13a-14(a)/15d-14(a) Certifications CERTIFICATIONS

I, Warren E. Buffett, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Berkshire Hathaway Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2019

/s/ WARREN E. BUFFETT

Chairman—Principal Executive Officer

Quarter ended June 30, 2019

Rule 13a-14(a)/15d-14(a) Certifications CERTIFICATIONS

I, Marc D. Hamburg, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Berkshire Hathaway Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2019

/s/ MARC D. HAMBURG
Senior Vice President—Principal Financial Officer

Section 1350 Certifications

Quarter ended June 30, 2019

I, Warren E. Buffett, Chairman and Chief Executive Officer of Berkshire Hathaway Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that to the best of my knowledge:

- (1) the Quarterly Report on Form 10-Q of the Company for the period ended June 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 3, 2019

/s/ WARREN E. BUFFETT

Warren E. Buffett Chairman and Chief Executive Officer

Section 1350 Certifications

Quarter ended June 30, 2019

- I, Marc D. Hamburg, Senior Vice President and Chief Financial Officer of Berkshire Hathaway Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that to the best of my knowledge:
- (1) the Quarterly Report on Form 10-Q of the Company for the period ended June 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 3, 2019

/s/ MARC D. HAMBURG

Marc D. Hamburg Senior Vice President and Chief Financial Officer

MINE SAFETY VIOLATIONS AND OTHER LEGAL MATTER DISCLOSURES PURSUANT TO SECTION 1503(a) OF THE DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT

PacifiCorp and its subsidiaries operate coal mines and coal processing facilities and Acme Brick and its affiliates operate clay, shale and limestone excavation facilities (collectively, the "mining facilities") that are regulated by the Federal Mine Safety and Health Administration ("MSHA") under the Federal Mine Safety and Health Act of 1977 (the "Mine Safety Act"). MSHA inspects mining facilities on a regular basis. The total number of reportable Mine Safety Act citations, orders, assessments and legal actions for the three months ended June 30, 2019 are summarized in the table below and are subject to contest and appeal. The severity and assessment of penalties may be reduced or, in some cases, dismissed through the contest and appeal process. Amounts are reported regardless of whether PacifiCorp or Acme has challenged or appealed the matter. Mines that are closed or idled are not included in the information below if no reportable events occurred at those locations during the three months ended June 30, 2019. PacifiCorp and Acme have not received any notice of a pattern, or notice of the potential to have a pattern, of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of coal or other mine health or safety hazards under Section 104(e) of the Mine Safety Act during the three months ended June 30, 2019.

		N	Iine Safety A	Act			Legal Actions			
Mining Facilities	Section 104 Significant and Substantial Citations ⁽¹⁾	Section 104(b) Orders ⁽²⁾	Section 104(d) Citations/ Orders ⁽³⁾	Section 110(b)(2) Violations ⁽⁴⁾	Section 107(a) Imminent Danger Orders ⁽⁵⁾	Total Value of Proposed MSHA Assessments (in thousands)	alue of Number opposed of MSHA Mining essments Related		Instituted During Period	Resolved During Period
Coal:										
Bridger (surface)	_	_	_	_	_	\$ —	_	_	_	_
Bridger (underground)	2	_	_	_	_	5	_	_	_	2
Wyodak Coal Crushing										
Facility	_	_	_	_	_	_	_	_	_	_
Clay, shale and limestone:										
Malvern	_	_	_	_	_	_	_		_	_
Wheeler	_	_	_	_	_	_	_	_	_	_
Oklahoma City	_	_	_	_	_	_	_	_	_	_
Tulsa	_	_	_	_	_	_	_	_	_	_
Bennett	_	_	_	_	_	_	_	_	_	_
Denton	_	_	_	_	_	_	_	_	_	_
Elgin	_	_	_	_	_	_	_	_	_	_
Sealy	_	_	_	_	_	_	_	_	_	_
Texas Clay	_	_	_	_	_	_	_	_	_	_
Leeds	_	_	_	_	_	_	_	_	_	_
Montgomery	_	_	_	_	_		_	_	_	_
Cordova	_	_	_	_	_	_	_	_	_	_

⁽i) Citations for alleged violations of mandatory health and safety standards that could significantly or substantially contribute to the cause and effect of a safety or health hazard under Section 104 of the Mine Safety Act.

For alleged failure to totally abate the subject matter of a Mine Safety Act Section 104(a) citation within the period specified in the citation.

⁽⁵⁾ For alleged unwarrantable failure (i.e., aggravated conduct constituting more than ordinary negligence) to comply with a mandatory health or safety standard.

For alleged flagrant violations (i.e., reckless or repeated failure to make reasonable efforts to eliminate a known violation of a mandatory health or safety standard that substantially and proximately caused, or reasonably could have been expected to cause, death or serious bodily injury).

For the existence of any condition or practice in a coal or other mine which could reasonably be expected to cause death or serious physical harm before such condition or practice can be abated.

For the existence of any proposed penalties under Subpart C of the Federal Mine Safety and Health Review Commission's procedural rules. The pending legal actions are not exclusive to citations, notices, orders and penalties assessed by MSHA during the reporting period.