UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM 10-Q

(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, 2022

OR

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

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
0.625% Senior Notes due 2023	BRK23A	New York Stock Exchange
1.300% Senior Notes due 2024	BRK24	New York Stock Exchange
0.000% Senior Notes due 2025	BRK25	New York Stock Exchange
1.125% Senior Notes due 2027	BRK27	New York Stock Exchange
2.150% Senior Notes due 2028	BRK28	New York Stock Exchange
1.500% Senior Notes due 2030	BRK30	New York Stock Exchange
2.000% Senior Notes due 2034	BRK34	New York Stock Exchange
1.625% Senior Notes due 2035	BRK35	New York Stock Exchange
2.375% Senior Notes due 2039	BRK39	New York Stock Exchange
0.500% Senior Notes due 2041	BRK41	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 req	uired to be filed by Section 13 or 15(d) of the Securities
•		iod that the registrant was required to file such reports),
and (2) has been subject to such filing requirements fo	r the past 90 days. Yes	⊠ No □
	this chapter) during the p	ally every Interactive Data File required to be submitted preceding 12 months (or for such shorter period that the

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. Accelerated filer П Non-accelerated filer Smaller reporting company □ Emerging growth company \square 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 □ No 🗵 Number of shares of common stock outstanding as of July 26, 2022: Class A -599,924 Class B -1,301,126,370

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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, 2022 (Unaudited)		2021
ASSETS			
Insurance and Other:			
Cash and cash equivalents*	\$ 26,534	\$	85,319
Short-term investments in U.S. Treasury Bills	74,803		58,535
Investments in fixed maturity securities	21,136		16,434
Investments in equity securities	327,662		350,719
Equity method investments	17,494		17,375
Loans and finance receivables	21,877		20,751
Other receivables	39,678		35,388
Inventories	24,560		20,954
Property, plant and equipment	20,517		20,834
Equipment held for lease	15,125		14,918
Goodwill	46,951		47,117
Other intangible assets	27,992		28,486
Deferred charges - retroactive reinsurance	10,213		10,639
Other	 16,302		15,854
	 690,844		743,323
Railroad, Utilities and Energy:			
Cash and cash equivalents*	4,074		2,865
Receivables	4,815		4,177
Property, plant and equipment	156,771		155,530
Goodwill	26,667		26,758
Regulatory assets	4,259		3,963
Other	 22,430		22,168
	 219,016		215,461
	\$ 909,860	\$	958,784

^{*} Includes U.S. Treasury Bills with maturities of three months or less when purchased of \$1.4 billion at June 30, 2022 and \$61.7 billion at December 31, 2021.

BERKSHIRE HATHAWAY INC. and Subsidiaries CONSOLIDATED BALANCE SHEETS

(dollars in millions)

		June 30, 2022 Jnaudited)	De	ecember 31, 2021
LIABILITIES AND SHAREHOLDERS' EQUITY	,	ĺ		
Insurance and Other:				
Unpaid losses and loss adjustment expenses	\$	88,560	\$	86,664
Unpaid losses and loss adjustment expenses under retroactive reinsurance contracts		37,234		38,256
Unearned premiums		25,727		23,512
Life, annuity and health insurance benefits		22,562		22,452
Other policyholder liabilities		8,998		9,330
Accounts payable, accruals and other liabilities		31,387		30,376
Aircraft repurchase liabilities and unearned lease revenues		5,907		5,849
Notes payable and other borrowings		42,640		39,272
		263,015		255,711
Railroad, Utilities and Energy:				
Accounts payable, accruals and other liabilities		16,193		15,696
Regulatory liabilities		7,290		7,214
Notes payable and other borrowings		76,441		74,990
		99,924		97,900
Income taxes, principally deferred		77,268		90,243
Total liabilities		440,207		443,854
Shareholders' equity:				
Common stock		8		8
Capital in excess of par value		35,204		35,592
Accumulated other comprehensive income		(6,175)		(4,027)
Retained earnings		496,126		534,421
Treasury stock, at cost		(63,934)		(59,795)
Berkshire Hathaway shareholders' equity		461,229		506,199
Noncontrolling interests		8,424		8,731
Total shareholders' equity		469,653		514,930
	\$	909,860	\$	958,784

and Subsidiaries

CONSOLIDATED STATEMENTS OF EARNINGS

(dollars in millions except per share amounts)
(Unaudited)

	Second Quarter			First Si	First Six Months			
		2022		021	2022		2021	
Revenues:								
Insurance and Other:								
Insurance premiums earned	\$	18,087	\$	17,163 \$	35,579	\$	33,587	
Sales and service revenues		40,220		36,743	78,082		70,441	
Leasing revenues		1,887		1,447	3,559		2,771	
Interest, dividend and other investment income		2,861		1,898	4,723		3,749	
		63,055		57,251	121,943		110,548	
Railroad, Utilities and Energy:								
Freight rail transportation revenues		6,612		5,778	12,556		11,156	
Energy operating revenues		4,935		4,302	9,753		9,150	
Service revenues and other income		1,578		1,783	2,738		2,859	
		13,125		11,863	25,047		23,165	
Total revenues		76,180		69,114	146,990		133,713	
Investment and derivative contract gains (losses)		(66,919)		27,394	(68,897)	33,094	
Costs and expenses:								
Insurance and Other:								
Insurance losses and loss adjustment expenses		13,620		12,175	26,952		23,139	
Life, annuity and health insurance benefits		1,282		1,459	2,605		2,939	
Insurance underwriting expenses		2,461		3,065	5,228		6,079	
Cost of sales and services		31,633		28,761	61,418		55,291	
Cost of leasing		1,498		982	2,730		1,864	
Selling, general and administrative expenses		3,762		5,045	8,013		8,955	
Interest expense		302		298	566		574	
interest expense	_	54,558		51,785	107,512		98,841	
Railroad, Utilities and Energy:	_	34,330		31,703	107,312	_	70,041	
Freight rail transportation expenses		4,260		3,588	8,185		7,098	
Utilities and energy cost of sales and other expenses		3,844		3,220	7,435		6,809	
Other expenses		1,527		1,563	2,683		2,656	
Interest expense		785		778	1,555		1,552	
interest expense	_	10,416		9,149	19,858	_	18,115	
Total costs and expenses	_	64,974		60,934	127,370	_	116,956	
Earnings (loss) before income taxes and equity method earnings	_	(55,713)		35,574	(49,277	_	49,851	
Equity method earnings Equity method earnings		231		147	607	,	398	
Earnings (loss) before income taxes	_	(55,482)		35,721	(48,670	<u> </u>	50,249	
S		(12,106)		7,296	(10,879	_		
Income tax expense (benefit)	_						9,984	
Net earnings (loss)		(43,376)		28,425	(37,791		40,265	
Earnings attributable to noncontrolling interests	ф.	379	Φ.	331	504		460	
Net earnings (loss) attributable to Berkshire Hathaway shareholders		(43,755)		28,094 \$	· · · · · · · · · · · · · · · · · · ·	_	39,805	
Net earnings (loss) per average equivalent Class A share	\$	(29,754)		18,488 \$			26,078	
Net earnings (loss) per average equivalent Class B share*	\$	(19.84)		12.33 \$,		17.39	
Average equivalent Class A shares outstanding		1,470,577		,519,576	1,472,628		1,526,392	
Average equivalent Class B shares outstanding	2	2,205,865,262	2,279	,363,382	2,208,942,539	2	2,289,587,640	

^{*} Class B shares are economically equivalent to one-fifteen-hundredth of a Class A share. Accordingly, net earnings (loss) per average equivalent Class B share outstanding is equal to one-fifteen-hundredth of the equivalent Class A amount. See Note 17.

and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(dollars in millions)

(Unaudited)

	Second Quarter					First Six	x Months		
		2022		2021		2022		2021	
Net earnings (loss)	\$	(43,376)	\$	28,425	\$	(37,791)	\$	40,265	
Other comprehensive income:									
Unrealized appreciation of investments		(211)		12		(447)		(75)	
Applicable income taxes		44		(2)		95		18	
Foreign currency translation		(1,751)		312		(2,067)		27	
Applicable income taxes		63		(11)		52		(14)	
Defined benefit pension plans		15		43		41		104	
Applicable income taxes		(4)		(9)		(9)		(29)	
Other, net		68		13		155		7	
Other comprehensive income, net		(1,776)		358		(2,180)		38	
Comprehensive income		(45,152)		28,783		(39,971)		40,303	
Comprehensive income attributable to noncontrolling interests		350		202		472		338	
Comprehensive income attributable to Berkshire Hathaway shareholders	\$	(45,502)	\$	28,581	\$	(40,443)	\$	39,965	

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(dollars in millions)

(Unaudited)
Berkshire Hathaway shareholders' equity

	and exc	mon stock capital in ess of par value	A	Accumulated other omprehensive income	Retained earnings	Treasury stock	Non- controlling interests	Total
For the second quarter and first six months of 2022								
Balance at December 31, 2021	\$	35,600	\$	(4,027)	\$534,421	\$ (59,795)	\$ 8,731	\$514,930
Net earnings		_		_	5,460	_	125	5,585
Other comprehensive income, net		_		(401)	_		(3)	(404)
Acquisition of common stock		_		_	_	(3,111)	_	(3,111)
Transactions with noncontrolling interests		(6)					(129)	(135)
Balance at March 31, 2022	\$	35,594	\$	(4,428)	\$539,881	\$ (62,906)	\$ 8,724	\$516,865
Net earnings (loss)		_		_	(43,755)	_	379	(43,376)
Other comprehensive income, net		_		(1,747)	_	_	(29)	(1,776)
Acquisition of common stock		_		_	_	(1,028)	_	(1,028)
Transactions with noncontrolling interests		(382)	_				(650)	(1,032)
Balance at June 30, 2022	\$	35,212	\$	(6,175)	<u>\$496,126</u>	<u>\$ (63,934</u>)	\$ 8,424	\$469,653
For the second quarter and first six months of 2021								
Balance at December 31, 2020	\$	35,634	\$	(4,243)	\$444,626	\$ (32,853)	\$ 8,172	\$451,336
Net earnings		_		_	11,711	_	129	11,840
Other comprehensive income, net		_		(327)	_		7	(320)
Acquisition of common stock		_		_	_	(6,565)	_	(6,565)
Transactions with noncontrolling interests		4	_				(119)	(115)
Balance at March 31, 2021	\$	35,638	\$	(4,570)	\$456,337	\$ (39,418)	\$ 8,189	\$456,176
Net earnings		_		_	28,094		331	28,425
Other comprehensive income, net		_		351	_	_	7	358
Acquisition of common stock		_		_	_	(6,028)	_	(6,028)
Transactions with noncontrolling interests		5					(136)	(131)
Balance at June 30, 2021	\$	35,643	\$	(4,219)	<u>\$484,431</u>	<u>\$ (45,446</u>)	\$ 8,391	\$478,800

and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS

(dollars in millions)

(Unaudited)

		First Six Months				
		2022		2021		
Cash flows from operating activities:						
Net earnings (loss)	\$	(37,791)	\$	40,265		
Adjustments to reconcile net earnings (loss) to operating cash flows:						
Investment (gains) losses		68,589		(32,384)		
Depreciation and amortization		5,413		5,345		
Other		(2,586)		33		
Changes in operating assets and liabilities:						
Unpaid losses and loss adjustment expenses		1,505		2,357		
Deferred charges - retroactive reinsurance		426		473		
Unearned premiums		2,384		2,375		
Receivables and originated loans		(6,372)		(4,825)		
Other assets		(4,686)		(909)		
Other liabilities		1,467		(664)		
Income taxes		(12,988)		7,493		
Net cash flows from operating activities		15,361		19,559		
Cash flows from investing activities:						
Purchases of equity securities		(57,269)		(3,589)		
Sales of equity securities		12,044		8,596		
Purchases of U.S. Treasury Bills and fixed maturity securities		(100,355)		(99,731)		
Sales of U.S. Treasury Bills and fixed maturity securities		54,637		10,814		
Redemptions and maturities of U.S. Treasury Bills and fixed maturity securities		23,681		77,541		
Purchases of loans and finance receivables		(22)		(56)		
Collections of loans and finance receivables		130		218		
Acquisitions of businesses, net of cash acquired		(103)		(104)		
Purchases of property, plant and equipment and equipment held for lease		(6,833)		(5,663)		
Other		(83)		541		
Net cash flows from investing activities		(74,173)		(11,433)		
Cash flows from financing activities:						
Proceeds from borrowings of insurance and other businesses		6,972		2,949		
Repayments of borrowings of insurance and other businesses		(1,440)		(2,481)		
Proceeds from borrowings of railroad, utilities and energy businesses		3,189		1,464		
Repayments of borrowings of railroad, utilities and energy businesses		(1,374)		(2,546)		
Changes in short term borrowings, net		(85)		(65)		
Acquisition of treasury stock		(4,191)		(12,560)		
Other		(1,464)		(339)		
Net cash flows from financing activities		1,607		(13,578)		
Effects of foreign currency exchange rate changes		(277)		(112)		
Increase (decrease) in cash and cash equivalents and restricted cash		(57,482)		(5,564)		
Cash and cash equivalents and restricted cash at beginning of year*		88,706		48,396		
Cash and cash equivalents and restricted cash at end of second quarter*	\$	31,224	\$	42,832		
*Cash and cash equivalents and restricted cash are comprised of:						
Beginning of year—						
Insurance and Other	\$	85,319	\$	44,714		
Railroad, Utilities and Energy		2,865		3,276		
Restricted cash included in other assets		522		406		
	\$	88,706	\$	48,396		
End of second quarter—						
Insurance and Other	\$	26,534	\$	38,924		
Railroad, Utilities and Energy	Ť	4,074		3,374		
Restricted cash included in other assets		616		534		
	\$	31,224	\$	42,832		
	Ψ	31,227	Ψ	12,032		

and Subsidiaries

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2022

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.

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. Given the size of our equity security investment portfolio, changes in market prices and the related changes in unrealized gains and losses on equity securities will produce significant volatility in our interim and annual earnings. In addition, gains and losses from the periodic revaluation of certain assets and liabilities denominated in foreign currencies and the magnitude of asset impairment charges may cause significant variations in periodic net earnings.

To varying degrees, the COVID-19 pandemic continues to affect our operating businesses. Significant government and private sector actions have been taken since 2020 to control the spread and mitigate the economic effects of the virus. Actions in the latter part of 2021 and during 2022 included temporary business closures or restrictions of business activities in various parts of the world in response to the emergence of variants of the virus. Notwithstanding these efforts, significant disruptions of supply chains and higher costs have persisted in 2022. Further, the development of geopolitical conflicts in 2022 have contributed to disruptions of supply chains, resulting in cost increases for commodities, goods and services in many parts of the world. The economic effects from these events over longer terms cannot be reasonably estimated at this time. Accordingly, significant estimates used in the preparation of our financial statements, including those associated with evaluations of certain long-lived assets, goodwill and other intangible assets for impairment, expected credit losses on amounts owed to us and the estimations of certain losses assumed under insurance and reinsurance contracts, may be subject to significant adjustments in future periods.

Note 2. New accounting pronouncements

In August 2018, the Financial Accounting Standards Board issued Accounting Standards Update 2018-12 "Targeted Improvements to the Accounting for Long-Duration Contracts" ("ASU 2018-12"). ASU 2018-12 requires reassessment of cash flow assumptions at least annually and revision of discount rate assumptions each reporting period in valuing policyholder liabilities of long-duration contracts. Under ASU 2018-12, the effects from changes in cash flow assumptions are reflected in earnings and the effects from changes in discount rate assumptions are reflected in other comprehensive income. Currently, the cash flow and discount rate assumptions are set at the contract inception date and not subsequently changed, except under limited circumstances. ASU 2018-12 is to be applied retrospectively to the earliest period presented in the financial statements, will require new disclosures and is effective for fiscal years beginning after December 15, 2022, with early adoption permitted.

We will adopt ASU 2018-12 as of January 1, 2023 using the modified retrospective method, whereby revised cash flow and discount rate assumptions as of January 1, 2021 (the transition date) are applied to contracts then in-force, with liabilities then remeasured as provided under the standard. The cumulative effects from discount rate assumption changes as of the transition date will be recorded in accumulated other comprehensive income and the cumulative effect from cash flow assumption changes will be recorded in retained earnings. While we have not finalized our assessment of the impact of the adoption as of the transition date, we currently believe that the changes in discount rate assumptions will have a greater effect on our recorded liabilities than changes in cash flow assumptions. We currently estimate that as of January 1, 2021, the adoption of ASU 2018-12 will reduce our consolidated shareholders' equity between \$6 billion and \$7 billion from the amount previously reported, primarily due to the low interest rate environment at that time. However, the ultimate impact of adopting ASU 2018-12 will be based on the discount rate and cash flow assumptions determined as of the January 1, 2023 adoption date. We, therefore, continue to evaluate 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, 2022 and December 31, 2021 are summarized by type below (in millions).

	Amortized Cost		Unrealized Gains			Unrealized Losses	Fair Value	
June 30, 2022								
U.S. Treasury, U.S. government corporations and agencies	\$	8,893	\$	7	\$	(159)	\$	8,741
Foreign governments		10,935		14		(122)		10,827
Corporate bonds		993		257		(3)		1,247
Other		293		30		(2)		321
	\$	21,114	\$	308	\$	(286)	\$	21,136
December 31, 2021					_			
U.S. Treasury, U.S. government corporations and agencies	\$	3,286	\$	22	\$	(5)	\$	3,303
Foreign governments		10,998		29		(33)		10,994
Corporate bonds		1,363		412		(1)		1,774
Other		317		47		(1)		363
	\$	15,964	\$	510	\$	(40)	\$	16,434

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, 2022, approximately 94% 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, 2022 are summarized below by contractual maturity dates. Amounts are in millions. Actual maturities may differ from contractual maturities due to prepayment rights held by issuers.

			Due	after one	Due	after five			Mortga	ge-	
	D	ue in one	yea	r through	year	rs through	Due	after	backe	d	
	ye	ar or less	fi	ve years	te	en years	ten	years	securiti	es	Total
Amortized cost	\$	10,305	\$	10,057	\$	460	\$	84	\$ 2	208	\$ 21,114
Fair value		10,220		9,888		702		92	2	234	21,136

Note 4. Investments in equity securities

Investments in equity securities as of June 30, 2022 and December 31, 2021 are summarized as follows (in millions).

Net Unrealized								
C	Cost Basis Gains				Fair Value			
\$	36,837	\$	39,655	\$	76,492			
	41,785		118,294		160,079			
	71,100		19,991		91,091			
\$	149,722	\$	177,940	\$	327,662			
	\$ \$	\$ 36,837 41,785 71,100	* 36,837 \$ 41,785 71,100	Cost Basis Gains \$ 36,837 \$ 39,655 41,785 118,294 71,100 19,991	Cost Basis Gains \$ 36,837 \$ 39,655 \$ 41,785 \$ 71,100 19,991			

^{*} Approximately 69% of the aggregate fair value was concentrated in five companies (American Express Company – \$21.0 billion; Apple Inc. – \$125.1 billion; Bank of America Corporation – \$32.2 billion; The Coca-Cola Company – \$25.2 billion and Chevron Corporation – \$23.7 billion).

	Net Unrealized							
	Cost Basis	Gains	Fair Value					
<u>December 31, 2021*</u>								
Banks, insurance and finance	\$ 26,822	\$ 62,236	\$ 89,058					
Consumer products	36,076	154,945	191,021					
Commercial, industrial and other	41,707	28,933	70,640					
	\$ 104,605	\$ 246,114	\$ 350,719					

^{*} Approximately 73% of the aggregate fair value was concentrated in four companies (American Express Company – \$24.8 billion; Apple Inc. – \$161.2 billion; Bank of America Corporation – \$46.0 billion and The Coca-Cola Company – \$23.7 billion).

Note 4. Investments in equity securities (*Continued*)

As of June 30, 2022, we owned 151.6 million shares of American Express Company ("American Express") common stock representing 20.2% of the American Express outstanding common stock. Since 1995, we have been party to an agreement with American Express whereby we agreed to vote a significant portion of our shares in accordance with the recommendations of the American Express Board of Directors and agreed to passivity commitments to the Board of Governors of the Federal Reserve System, which collectively restrict our ability to exercise significant influence over the operating and financial policies of American Express. Accordingly, we have not applied the equity method of accounting with respect to our investment in American Express and continue to record our investment at fair value.

Our equity security investments also include Occidental Petroleum Corporation ("Occidental") Cumulative Perpetual Preferred Stock with an aggregate liquidation value of \$10 billion and warrants to purchase up to 83.86 million shares of Occidental common stock at an exercise price of \$59.62 per share. The preferred stock accrues dividends at 8% per annum and is redeemable at the option of Occidental commencing in 2029 at a redemption price equal to 105% of the liquidation preference, plus any accumulated and unpaid dividends and is mandatorily redeemable under specified events. Dividends on the preferred stock are payable in cash or, at Occidental's option, in shares of Occidental common stock. The warrants are exercisable in whole or in part until one year after the redemption of the preferred stock. During the first six months of 2022, we also acquired approximately 17% of the outstanding common stock of Occidental, which had a fair value of \$9.3 billion as of June 30, 2022.

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 manufactures and markets food and beverage products, including condiments and sauces, cheese and dairy, meals, refreshment beverages, coffee and other grocery products. Berkshire currently owns 26.6% of the outstanding shares of Kraft Heinz common stock.

We recorded equity method earnings from our investment in Kraft Heinz of \$71 million in the second quarter and \$277 million in the first six months of 2022. We recorded an equity method loss of \$7 million in the second quarter and earnings of \$143 million in the first six months of 2021. We received dividends on the common stock of \$260 million in the first six months of both 2022 and 2021, which were recorded as reductions to the carrying value of our investment.

Shares of Kraft Heinz common stock are publicly traded and the fair value of our investment was approximately \$12.4 billion at June 30, 2022 and \$11.7 billion at December 31, 2021. The carrying value of our investment was approximately \$13.0 billion at June 30, 2022 and \$13.1 billion at December 31, 2021. As of June 30, 2022, the carrying value of our investment exceeded the fair value based on the quoted market price by 5% of the carrying value. We evaluated our investment in Kraft Heinz for impairment as of June 30, 2022. Based on the prevailing facts and circumstances, we concluded recognition of an impairment loss in earnings was not required.

Summarized consolidated financial information of Kraft Heinz follows (in millions).

	June 25, 2022	D	December 25, 2021
Assets	\$ 91,676	\$	93,394
Liabilities	42,674		43,942

	Secon	d Qua	rter	First Six M			Months	
_	2022		2021		2022		2021	
Sales \$	6,554	\$	6,615	\$	12,599	\$	13,009	
Net earnings (loss) attributable to Kraft Heinz common shareholders	265		(27)		1,041		536	

Other investments that we account for pursuant to the equity method include Berkadia Commercial Mortgage LLC ("Berkadia"), Pilot Travel Centers LLC ("Pilot"), Electric Transmission Texas, LLC ("ETT") and Iroquois Gas Transmission System L.P. ("Iroquois"). The aggregate carrying value of these investments was approximately \$4.5 billion as of June 30, 2022 and \$4.3 billion as of December 31, 2021. We recorded equity method earnings from these entities in the first six months of \$330 million in 2022 and \$255 million in 2021. We received aggregate distributions in the first six months of \$137 million in 2022 and \$982 million in 2021, including a special distribution received from Pilot of \$849 million in the first quarter of 2021. Additional information concerning these investments follows.

Note 5. Equity method investments (Continued)

We own a 50% interest in Berkadia, with Jefferies Financial Group Inc. ("Jefferies") owning the other 50% interest. Berkadia provides capital solutions, investment sales advisory and mortgage servicing for multifamily and commercial real estate. A source of funding for Berkadia's operations is through commercial paper, which was \$1.47 billion at June 30, 2022 and is limited to \$1.5 billion. Berkadia's 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. Berkshire Hathaway Energy ("BHE") subsidiaries own 50% noncontrolling interests in ETT, an owner and operator of electric transmission assets in Texas, and Iroquois, which owns and operates a natural gas pipeline located in New York and Connecticut.

We own a 38.6% interest in Pilot, headquartered in Knoxville, Tennessee. Pilot operates travel centers in North America through more than 800 retail locations across 44 U.S. states and six Canadian provinces and is a leading supplier of fuel to third parties. The Haslam family currently owns a 50.1% interest in Pilot and a third party owns the remaining 11.3% interest. We have an agreement to acquire an additional 41.4% interest in Pilot in 2023, with the Haslam family retaining a 20% interest. As a result, Berkshire will become the majority owner of Pilot in 2023.

Note 6. Investment and derivative contract gains/losses

Investment and derivative contract gains/losses in the second quarter and first six months of 2022 and 2021 are summarized as follows (in millions).

	Second Quarter			First Six	Months	
	2022		2021	2022		2021
Investment gains (losses):						
Equity securities:						
Change in unrealized investment gains (losses) during the period on securities held at the end of the period	\$ (66,860)	\$	27,014	\$ (68,548)	\$	31,548
Investment gains on securities sold during the period	32		144	34		670
	(66,828)		27,158	(68,514)		32,218
Fixed maturity securities:						
Gross realized gains	6		15	12		35
Gross realized losses	(27)		(12)	(76)		(13)
Other	(5)		12	(11)		144
Investment gains (losses)	(66,854)		27,173	(68,589)		32,384
Derivative contract gains (losses)	(65)		221	(308)		710
	\$ (66,919)	\$	27,394	\$ (68,897)	\$	33,094

Equity securities gains and losses include unrealized gains and losses from changes in fair values during the period on equity securities we still own, as well as gains and losses on securities we sold during the period. As reflected in the Consolidated Statements of Cash Flows, we received proceeds from sales of equity securities of approximately \$12.0 billion in the first six months of 2022 and \$8.6 billion in the first six months of 2021. In the preceding table, investment gains and losses on equity securities sold during the period represent the difference between the sales proceeds and the fair value of the equity securities sold at the beginning of the applicable period or, if later, the purchase date. Taxable gains/losses on equity securities sold are generally the difference between the proceeds from sales and original cost. Equity securities sold produced taxable gains of \$76 million in the second quarter of 2022 and taxable losses of \$663 million in the first six months of 2022 compared to taxable gains of \$228 million in the second quarter and \$2.0 billion in the first six months of 2021.

Our derivative contract gains and losses derive from equity index put option contracts written prior to March 2008 on four major equity indexes. As of June 30, 2022, we had six open contracts, which had an aggregate fair value liability of \$186 million and an aggregate notional value of \$2.5 billion.

Note 7. Loans and finance receivables

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

	J	une 30, 2022	De	cember 31, 2021
Loans and finance receivables before allowances and discounts	\$	23,238	\$	22,065
Allowances for credit losses		(803)		(765)
Unamortized acquisition discounts and points		(558)		(549)
	\$	21,877	\$	20,751

Loans and finance receivables are principally manufactured home loans, and to a lesser extent, site-built home loans and commercial loans. Reconciliations of the allowance for credit losses on loans and finance receivables for the first six months of 2022 and 2021 follow (in millions).

	 First Six Months				
	2022		2021		
Balance at beginning of year	\$ 765	\$	712		
Provision for credit losses	50		49		
Charge-offs, net of recoveries	 (12)		(22)		
Balance at June 30	\$ 803	\$	739		

As of June 30, 2022, approximately 99% of manufactured and site-built home loans were evaluated collectively for impairment. As of June 30, 2022, we considered approximately 97% of these loans to be current as to payment status. A summary of performing and non-performing home loans before discounts and allowances by year of loan origination as of June 30, 2022 follows (in millions).

	Origination Year											
		2022		2021		2020		2019		2018	Prior	Total
Performing	\$	3,322	\$	3,807	\$	2,972	\$	2,098	\$	1,588	\$ 7,480	\$ 21,267
Non-performing		1		4		7		7		6	43	68
	\$	3,323	\$	3,811	\$	2,979	\$	2,105	\$	1,594	\$ 7,523	\$ 21,335

We are also party to two commercial loan agreements with an aggregate carrying value of \$1.9 billion at June 30, 2022 and December 31, 2021. The larger of these loans is with Seritage Growth Properties ("Seritage"), which had a carrying value of \$1.44 billion as of June 30, 2022 and December 31, 2021. The Seritage loan is pursuant to a \$2.0 billion term loan facility and the outstanding loan is secured by mortgages on its real estate properties. The Seritage loan agreement, as amended, allows optional loan prepayments without penalty and further provides Seritage with the option to extend the maturity of the loan to July 31, 2025, if the outstanding principal has been reduced to \$800 million by the original expiration date of July 31, 2023. Each of these commercial loans is current as to payment status.

Note 8. Other receivables

Other receivables are comprised of the following (in millions).

	June 30, 2022	December 31, 2021
Insurance and other:		
Insurance premiums receivable	\$ 17,391	\$ 15,050
Reinsurance recoverables	4,836	4,900
Trade receivables	14,511	12,971
Other	3,648	3,146
Allowances for credit losses	(708)	(679)
	\$ 39,678	\$ 35,388
Railroad, utilities and energy:		
Trade receivables	\$ 4,167	\$ 3,678
Other	789	650
Allowances for credit losses	(141)	(151)
	\$ 4,815	\$ 4,177

Note 8. Other receivables (Continued)

Provisions for credit losses in the first six months with respect to receivables summarized above were \$211 million in 2022 and \$209 million in 2021. Charge-offs, net of recoveries, in the first six months were \$189 million in 2022 and \$171 million in 2021.

Note 9. Inventories

Inventories are comprised of the following (in millions).

	J	une 30, 2022	De	2021
Raw materials	\$	6,558	\$	5,743
Work in process and other		3,750		3,192
Finished manufactured goods		5,396		4,530
Goods acquired for resale		8,856		7,489
	\$	24,560	\$	20,954

Note 10. Property, plant and equipment

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

	 June 30, 2022	De	cember 31, 2021
Land, buildings and improvements	\$ 14,055	\$	14,070
Machinery and equipment	26,082		26,063
Furniture, fixtures and other	 4,872		4,640
	45,009		44,773
Accumulated depreciation	 (24,492)		(23,939)
	\$ 20,517	\$	20,834

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, 2022	December 31, 2021		
Railroad:				
Land, track structure and other roadway	\$ 65,821	\$	65,843	
Locomotives, freight cars and other equipment	15,957		13,822	
Construction in progress	1,186		1,027	
	82,964		80,692	
Accumulated depreciation	(16,988)		(14,978)	
	65,976		65,714	
Utilities and energy:				
Utility generation, transmission and distribution systems	90,810		90,223	
Interstate natural gas pipeline assets	17,547		17,423	
Independent power plants and other assets	14,488		13,695	
Construction in progress	4,774		4,196	
	127,619		125,537	
Accumulated depreciation	(36,824)		(35,721)	
	90,795		89,816	
	\$ 156,771	\$	155,530	

Depreciation expense for the first six months of 2022 and 2021 is summarized below (in millions).

	 First Six Months				
	2022		2021		
Insurance and other	\$ 1,127	\$	1,148		
Railroad, utilities and energy	3,091		2,990		
	\$ 4,218	\$	4,138		

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, 2022	D	December 31, 2021
Railcars	\$ 9,558	\$	9,448
Aircraft	9,798		9,234
Other	5,116		5,053
	24,472		23,735
Accumulated depreciation	(9,347)		(8,817)
	\$ 15,125	\$	14,918

Depreciation expense for equipment held for lease in the first six months was \$593 million in 2022 and \$570 million in 2021. Fixed and variable operating lease revenues for the second quarter and first six months of 2022 and 2021 are summarized below (in millions).

	 Second	<u>•</u>	First Six Months					
	 2022		2021		2022		2021	
Fixed lease revenue	\$ 1,264	\$	1,105	\$	2,452	\$	2,167	
Variable lease revenue	623		342		1,107		604	
	\$ 1,887	\$	1,447	\$	3,559	\$	2,771	

Note 12. Goodwill and other intangible assets

Reconciliations of the changes in the carrying value of goodwill for the first six months of 2022 and for the year ended December 31, 2021 follow (in millions).

		December 31, 2021			
Balance at beginning of year	\$	73,875	\$	73,734	
Business acquisitions		35		353	
Other, including foreign currency translation		(292)		(212)	
Balance at end of period*	\$	73,618	\$	73,875	

^{*} Net of accumulated goodwill impairments of \$11.0 billion as of June 30, 2022 and December 31, 2021.

The gross carrying amounts and related accumulated amortization of other intangible assets are summarized as follows (in millions).

	June 30, 2022						December 31, 2021					
	Gross carrying amount		Accumulated amortization		Net carrying value		Gross carrying amount		Accumulated amortization		c	Net arrying value
Insurance and other:												
Customer relationships	\$	27,308	\$	6,763	\$	20,545	\$	27,335	\$	6,450	\$	20,885
Trademarks and trade names		5,174		811		4,363		5,176		802		4,374
Patents and technology		4,846		3,598		1,248		4,763		3,484		1,279
Other		3,304		1,468		1,836		3,390		1,442		1,948
	\$	40,632	\$	12,640	\$	27,992	\$	40,664	\$	12,178	\$	28,486
Railroad, utilities and energy:												
Customer relationships	\$	678	\$	412	\$	266	\$	678	\$	396	\$	282
Trademarks, trade names and other		1,014		168		846		1,015		146		869
	\$	1,692	\$	580	\$	1,112	\$	1,693	\$	542	\$	1,151

Note 12. Goodwill and other intangible assets (Continued)

Intangible asset amortization expense in the first six months was \$602 million in 2022 and \$637 million in 2021. Intangible assets with indefinite lives were \$18.4 billion as of June 30, 2022 and \$18.5 billion as of December 31, 2021 and primarily related to certain customer relationships and trademarks and trade names.

Note 13. Unpaid losses and loss adjustment expenses

Our liabilities for unpaid losses and loss adjustment expenses (also referred to as "claim liabilities") under property and casualty insurance and reinsurance contracts are based upon estimates of the ultimate claim costs associated with claim occurrences as of the balance sheet date and include estimates for incurred-but-not-reported ("IBNR") claims. A reconciliation of the changes in claim liabilities, excluding liabilities under retroactive reinsurance contracts (see Note 14), for each of the six-month periods ending June 30, 2022 and 2021 follows (in millions).

	 2022	2021
Balances at beginning of year:		
Gross liabilities	\$ 86,664	79,854
Reinsurance recoverable on unpaid losses	 (2,960)	(2,912)
Net liabilities	 83,704	76,942
Incurred losses and loss adjustment expenses:		
Current accident year	27,427	23,651
Prior accident years	 (887)	(1,064)
Total	 26,540	22,587
Paid losses and loss adjustment expenses:		
Current accident year	(10,085)	(8,406)
Prior accident years	 (13,820)	(11,169)
Total	 (23,905)	(19,575)
Foreign currency effect	(568)	31
Balances at June 30:		
Net liabilities	85,771	79,985
Reinsurance recoverable on unpaid losses	 2,789	2,973
Gross liabilities	\$ 88,560	82,958

Incurred losses and loss adjustment expenses shown in the preceding table were recorded in earnings and related to insured events occurring in the current year ("current accident year") and events occurring in all prior years ("prior accident years"). Incurred and paid losses and loss adjustment expenses are net of reinsurance recoveries. In the first six months, we recorded net reductions of estimated ultimate liabilities for prior accident years of \$887 million in 2022 and \$1.1 billion in 2021, which produced corresponding reductions in incurred losses and loss adjustment expenses in those periods. These reductions, as percentages of the net liabilities at the beginning of each year, were 1.1% in 2022 and 1.4% in 2021.

Estimated ultimate liabilities for prior accident years from primary insurance in the first six months were reduced by \$313 million in 2022 and \$1.1 billion in 2021. The reductions in each period derived primarily from private passenger automobile, medical professional liability and workers' compensation claims and in 2022 were partly offset by increases in ultimate liabilities for other casualty claims. Estimated ultimate liabilities for prior years attributable to property and casualty reinsurance in the first six months decreased \$574 million in 2022 and increased \$35 million in 2021.

Note 14. 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, when applicable, after 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 charges for each of the six-month periods ending June 30, 2022 and 2021 follow (in millions).

		202	22	2021				
	and loss charges - adjustment retroactive expenses reinsurance		Unpaid losses and loss adjustment expenses	Deferred charges - retroactive reinsurance				
Balances at beginning of year	\$	38,256	\$ (10,639)	\$ 40,966	\$ (12,441)			
Incurred losses and loss adjustment expenses:								
Current year contracts		_	_	82	_			
Prior years' contracts		(14)	426	(3)	473			
Total		(14)	426	79	473			
Paid losses and loss adjustment expenses		(1,008)	_	(808)	_			
Balances at June 30	\$	37,234	\$ (10,213)	\$ 40,237	\$ (11,968)			
Incurred losses and loss adjustment expenses, net of deferred charges	\$	412		\$ 552				

In the preceding table, classifications of incurred losses and loss adjustment expenses are based on the inception dates of the contracts, which reflect when our exposure to losses began. Incurred losses and loss adjustment expenses in the first six months for prior years' contracts were \$412 million in 2022 and \$470 million in 2021 and included recurring amortization of deferred charges and the effect of changes in the timing and amount of expected future loss payments. Currently, our largest retroactive reinsurance contract is between our subsidiary, National Indemnity Company, and certain subsidiaries of American International Group, Inc. (collectively, "AIG"). Our estimated claim liabilities with regard to the AIG contract were approximately \$15.2 billion at June 30, 2022 and \$15.8 billion at December 31, 2021. Deferred charges related to the AIG contract were \$4.24 billion at June 30, 2022 and \$4.45 billion at December 31, 2021.

Note 15. 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, 2022.

	Weighted Average Interest Rate	June 30, 2022	December 31, 2021
Insurance and other:			
Berkshire Hathaway Inc. ("Berkshire"):			
U.S. Dollar denominated due 2023-2047	3.3%	\$ 6,225	\$ 6,820
Euro denominated due 2023-2041	1.0%	7,189	7,792
Japanese Yen denominated due 2023-2060	0.6%	6,706	6,797
Berkshire Hathaway Finance Corporation ("BHFC"):			
U.S. Dollar denominated due 2027-2052	3.6%	14,455	10,758
Great Britain Pound denominated due 2039-2059	2.5%	2,093	2,325
Euro denominated due 2030-2034	1.8%	1,304	_
Other subsidiary borrowings due 2022-2045	4.1%	4,375	4,438
Subsidiary short-term borrowings	3.7%	293	342
		\$ 42,640	\$ 39,272

Note 15. Notes payable and other borrowings (Continued)

In January 2022, Berkshire repaid \$600 million of maturing senior notes and issued ¥128.5 billion (approximately \$1.1 billion) of senior notes with maturity dates ranging from 2027 to 2052 and a weighted average interest rate of 0.5%. 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. BHFC borrowings are fully and unconditionally guaranteed by Berkshire. In March 2022, BHFC issued \$4.5 billion of senior notes with maturity dates ranging from 2027 to 2052 with a weighted average interest rate of 3.4% and €1.25 billion (approximately \$1.4 billion) of senior notes maturing in 2030 and 2034 with a weighted average interest rate of 1.8%. In May 2022, BHFC repaid \$775 million of maturing senior notes.

The carrying values of Berkshire and BHFC non-U.S. Dollar denominated senior notes (€8.15 billion, £1.75 billion and ¥914 billion par at June 30, 2022) reflect the applicable exchange rates as of each 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 exchange rates resulted in pre-tax gains of \$1.4 billion in the second quarter and \$2.1 billion in the first six months of 2022 as compared to pre-tax losses of \$45 million in the second quarter and pre-tax gains of \$675 million in the first six months of 2021.

Berkshire also guarantees debt of other subsidiaries, aggregating approximately \$3.8 billion at June 30, 2022. 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 June 30, Interest Rate 2022				ecember 31, 2021
4.3%	\$	13,992	\$	13,003
4.1%		37,125		36,759
2.8%		1,948		2,009
4.5%		23,376		23,219
	\$	76,441	\$	74,990
	Average Interest Rate 4.3% 4.1% 2.8%	Average Interest Rate 4.3% \$ 4.1% 2.8%	Average June 30, 2022 4.3% \$ 13,992 4.1% 37,125 2.8% 1,948 4.5% 23,376	Average June 30, 2022 4.3% \$ 13,992 \$ 4.1% 37,125 2.8% 1,948 4.5% 23,376

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 such debt. These borrowing arrangements generally contain various covenants, which pertain to leverage ratios, interest coverage ratios and/or debt service coverage ratios. In April 2022, BHE issued \$1.0 billion of 4.6% senior notes due in 2053. During the first six months of 2022, BHE subsidiaries issued approximately \$1.3 billion of term debt with a weighted average interest rate of 3.5% and maturity dates ranging from 2024 to 2052.

BNSF's borrowings are primarily senior unsecured debentures. In June 2022, BNSF issued \$1.0 billion of 4.45% debentures due in 2053. During the first six months of 2022, BNSF repaid \$800 million of term debt. As of June 30, 2022, 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.

Our subsidiaries have unused lines of credit and commercial paper capacity to support short-term borrowing programs and provide additional liquidity. Unused lines of credit were approximately \$10.3 billion at June 30, 2022, which included approximately \$8.8 billion related to BHE and its subsidiaries.

Note 16. Fair value measurements

Our financial assets and liabilities are summarized below as of June 30, 2022 and December 31, 2021, with fair values shown according to the fair value hierarchy (in millions). The carrying values of cash and cash equivalents, U.S. Treasury Bills, other 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)	o	ignificant Other bservable Inputs Level 2)	Significant Unobservable Inputs (Level 3)	
June 30, 2022									
Investments in fixed maturity securities:									
U.S. Treasury, U.S. government corporations									
and agencies	\$	8,741	\$	8,741	\$ 8,704	\$	37	\$	_
Foreign governments		10,827		10,827	10,367		460		_
Corporate bonds		1,247		1,247	_		1,247		_
Other		321		321	_		321		_
Investments in equity securities		327,662		327,662	315,715		7		11,940
Investment in Kraft Heinz common stock		12,959		12,412	12,412		_		_
Loans and finance receivables		21,877		22,827	_		2,048		20,779
Derivative contract assets (1)		669		669	27		541		101
Derivative contract liabilities (1)		617		617	14		345		258
Notes payable and other borrowings:									
Insurance and other		42,640		39,474	_		39,430		44
Railroad, utilities and energy		76,441		73,513	_		73,513		_
<u>December 31, 2021</u>									
Investments in fixed maturity securities:									
U.S. Treasury, U.S. government corporations									
and agencies	\$	3,303	\$	3,303	\$ 3,261	\$	42	\$	_
Foreign governments		10,994		10,994	10,286		708		_
Corporate bonds		1,774		1,774	_		1,774		_
Other		363		363	_		363		_
Investments in equity securities		350,719		350,719	339,225		8		11,486
Investment in Kraft Heinz common stock		13,112		11,683	11,683		_		_
Loans and finance receivables		20,751		22,174	_		2,178		19,996
Derivative contract assets (1)		329		329	6		230		93
Derivative contract liabilities (1)		376		376	2		150		224
Notes payable and other borrowings:									
Insurance and other		39,272		42,339	_		42,292		47
Railroad, utilities and energy		74,990		87,065	_		87,065		_

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

Note 16. 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, 2022 and 2021 follow (in millions).

	be	alance at eginning of year	inc	Gains luded in arnings	Acquisitions, dispositions and settlements	insfers out f Level 3	llance at une 30
Investments in equity securities:							
2022	\$	11,480	\$	455	\$ —	\$ 	\$ 11,935
2021		8,978		1,559	1,100	_	11,637
Equity index put option contract liabilities:							
2021		(1,065)		710	_	_	(355)

Quantitative information as of June 30, 2022 with respect to significant assets and liabilities measured and carried at fair value on a recurring basis with the use of significant unobservable inputs (Level 3) follows (dollars in millions).

	Fair Value	Principal Valuation Techniques	Unobservable Inputs	Weighted Average
Investments in equity securities:				
Preferred stock	\$ 10,051	Discounted cash flow	Expected duration	7 years
			Discount for transferability restrictions and subordination	372 bps
Common stock warrants	1,884	Warrant pricing model	Expected duration	7 years
			Volatility	38%

Investments in equity securities in the preceding table include our investments in certain preferred stocks and common stock warrants that do not have readily determinable market values as defined under GAAP. These investments are subject to contractual restrictions on transferability and may contain provisions that prevent us from economically hedging our investments. We applied discounted cash flow techniques in valuing the preferred stock and we made assumptions regarding the expected duration of the investment and the effects of subordination in liquidation. In valuing the common stock warrants, we used a warrant valuation model. While most of the inputs to the model are observable, we made assumptions regarding the expected duration and volatility of the warrants.

Note 17. Common stock

Changes in Berkshire's issued, treasury and outstanding common stock during the first six months of 2022 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 Value (3,225,000,000 shares authorized)					
	Issued	Treasury	Outstanding	Issued	Treasury	Outstanding			
Balances at December 31, 2021	665,901	(48,788)	617,113	1,488,292,852	(197,818,349)	1,290,474,503			
Conversions of Class A common stock to Class B									
common stock	(11,544)	_	(11,544)	17,316,000	_	17,316,000			
Treasury stock acquired		(4,402)	(4,402)		(6,850,133)	(6,850,133)			
Balances at June 30, 2022	654,357	(53,190)	601,167	1,505,608,852	(204,668,482)	1,300,940,370			

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 equal 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 1,468,461 shares outstanding as of June 30, 2022 and 1,477,429 shares outstanding as of December 31, 2021.

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 the average Class A shares outstanding.

Berkshire's common stock repurchase program permits Berkshire to repurchase its Class A and Class B 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 \$30 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 18. Income taxes

Our consolidated effective income tax rates were 21.8% in the second quarter and 22.4% in the first six months of 2022 compared to 20.4% in the second quarter and 19.9% in the first six months of 2021. Our effective income tax rate normally reflects recurring benefits from dividends-received deductions applicable to investments in certain 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, including investment gains or losses with respect to our investments in equity securities, the amount of non-deductible goodwill impairment charges and other expenses and the underlying income tax rates applicable in the various taxing jurisdictions.

Note 19. Accumulated other comprehensive income

A summary of the net changes in after-tax accumulated other comprehensive income attributable to Berkshire Hathaway shareholders for the six months ending June 30, 2022 and 2021 follows (in millions).

First six months of 2022	Unrealized appreciation of fixed maturity securities, net		Foreign currency translation		_	efined benefit ension plans	_	Other	Accumulated other comprehensive income		
Balance at beginning of year	\$	369	\$	(4,092)	\$	(347)	\$	43	\$	(4,027)	
Other comprehensive income, net		(352)		(1,971)		27		148		(2,148)	
Balance at end of period	\$	17	\$	(6,063)	\$	(320)	\$	191	\$	(6,175)	
First six months of 2021											
Balance at beginning of year	\$	536	\$	(3,082)	\$	(1,645)	\$	(52)	\$	(4,243)	
Other comprehensive income, net		(58)		(1)		73		10		24	
Balance at end of period	\$	478	\$	(3,083)	\$	(1,572)	\$	(42)	\$	(4,219)	

Note 20. Supplemental cash flow information

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

	First Six Months				
	2022		2021		
Cash paid during the period for:					
Income taxes	\$ 1,951	\$	2,508		
Interest:					
Insurance and other	567		699		
Railroad, utilities and energy	1,564		1,580		

Note 21. 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 as a result of other pending legal actions will not have a material effect on our consolidated financial condition or results of operations.

Berkshire and Alleghany Corporation ("Alleghany") entered into a definitive agreement and plan of merger dated as of March 20, 2022, whereby Berkshire will acquire all of Alleghany's outstanding common stock for cash of approximately \$11.6 billion. The Alleghany shareholders voted to approve and adopt the agreement and plan of merger on June 9, 2022. The acquisition of Alleghany is expected to close in the fourth quarter of 2022 and is subject to the receipt of various regulatory approvals and customary closing conditions. Alleghany owns property and casualty reinsurance and insurance businesses as well as a diverse portfolio of non-financial businesses.

In June 2022, BHE acquired the BHE common stock held by Greg Abel, Berkshire's Vice Chairman - non-insurance operations, for \$870 million. The purchase was pursuant to the terms of a shareholders agreement between Berkshire, BHE and BHE's non-controlling shareholders. Berkshire recorded a charge of \$362 million to capital in excess of par value for the excess of the consideration paid over the carrying value of the acquired noncontrolling interest.

Note 22. Revenues from contracts with customers

We recognize revenue 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 2022 and 2021 (in millions). Other revenues, which are not considered to be revenues from contracts with customers under GAAP, are primarily insurance premiums earned, interest, dividend and other investment income and leasing revenues.

	Man	ufacturing	ing McLane		Service and Retailing BNSF		Berkshire Hathaway Energy		Insurance, Corporate and other	Total	
Three months ending June 30, 2022											
Manufactured products:											
Industrial and commercial products	\$	6,142	\$ _	- \$	48	\$	_	\$	_	\$ —	\$ 6,190
Building products		5,970	_	-	_		_		_	_	5,970
Consumer products		5,509	_	-	_		_		_	_	5,509
Grocery and convenience store distribution		_	7,979)	_		_		_	_	7,979
Food and beverage distribution		_	5,002	,	_		_		_	_	5,002
Auto sales		_	_	-	2,675		_		_	_	2,675
Other retail and wholesale distribution		818	_	-	4,265		_		_	_	5,083
Service		302	248	;	1,078		6,596		1,561	_	9,785
Electricity and natural gas									4,740		4,740
Total		18,741	13,229)	8,066		6,596		6,301	_	52,933
Other revenues		995	33		1,527		16		212	20,464	23,247
	\$	19,736	\$ 13,262	\$	9,593	\$	6,612	\$	6,513	\$ 20,464	<u>\$ 76,180</u>
Six months ending June 30, 2022											
Manufactured products:											
Industrial and commercial products	\$	12,074	\$ —	- \$	97	\$	_	\$	_	\$ —	\$ 12,171
Building products		11,389	_		_		_		_	_	11,389
Consumer products		10,602	_		_		_		_	_	10,602
Grocery and convenience store distribution		_	15,685	i	_		_			_	15,685
Food and beverage distribution		_	9,564	•	_		_		_	_	9,564
Auto sales		_	_		5,202		_		_	_	5,202
Other retail and wholesale distribution		1,540	_	•	8,440		_		_	_	9,980
Service		566	462	,	2,084		12,527		2,673	_	18,312
Electricity and natural gas									9,454		9,454
Total		36,171	25,711		15,823		12,527		12,127	_	102,359
Other revenues		1,950	65		2,861		29		364	39,362	44,631
	\$	38,121	\$ 25,776	\$	18,684	\$	12,556	\$	12,491	\$ 39,362	<u>\$146,990</u>

Note 22. Revenues from contracts with customers (Continued)

	Man	ufacturing	McLane		Service and Retailing BNSF		BNSF Berkshire Hathaway Energy		Insurance, Corporate and other		Total	
Three months ending June 30, 2021												
Manufactured products:												
Industrial and commercial products	\$	5,586	\$ —	\$	49	\$	_	\$	_	\$ —	- \$	5,635
Building products		5,114	_		_		_		_	_	-	5,114
Consumer products		4,604	_		_		_		_	_	-	4,604
Grocery and convenience store distribution		_	7,729		_		_		_	_	-	7,729
Food and beverage distribution		_	4,356		_		_		_	_	-	4,356
Auto sales		_	_		2,750		_		_	_	-	2,750
Other retail and wholesale distribution		754	_		4,008		_		_	_	-	4,762
Service		370	183		1,053		5,763		1,593	_	-	8,962
Electricity and natural gas									4,198			4,198
Total		16,428	12,268		7,860		5,763		5,791	_	-	48,110
Other revenues		947	27		1,094		15		294	18,627		21,004
	\$	17,375	\$ 12,295	\$	8,954	\$	5,778	\$	6,085	\$ 18,627	9	69,114
Six months ending June 30, 2021												
Manufactured products:												
Industrial and commercial products	\$	10,949	\$ —	\$	99	\$	_	\$	_	\$ —	- \$	11,048
Building products		9,513	_		_		_		_	_	-	9,513
Consumer products		8,767	_		_		_		_	_	-	8,767
Grocery and convenience store distribution		_	15,171		_		_		_	_	-	15,171
Food and beverage distribution		_	8,360		_		_		_	_	-	8,360
Auto sales		_	_		5,062		_		_	_	-	5,062
Other retail and wholesale distribution		1,457	_		7,664		_		_	_	-	9,121
Service		699	334		1,987		11,128		2,633	_	-	16,781
Electricity and natural gas									8,910			8,910
Total		31,385	23,865		14,812		11,128		11,543	_	-	92,733
Other revenues		1,870	52		2,085		28		466	36,479) _	40,980
	\$	33,255	\$ 23,917	\$	16,897	\$	11,156	\$	12,009	\$ 36,479) {	\$133,713
				_								

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, 2022 and the timing of when the performance obligations are expected to be satisfied follows (in millions).

	Less than	G	reater than		
	 12 months	12 months			Total
Electricity and natural gas	\$ 4,019	\$	22,226	\$	26,245
Other sales and service contracts	1,642		2,789		4,431

Reconciliation of segments to consolidated amount

Investment and derivative gains (losses)

Equity method investments

Corporate, eliminations and other

Interest expense, not allocated to segments

Note 23. 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 and marketing, selling and distribution characteristics, even though those business units are operated under separate local management. Revenues and earnings before income taxes by segment for the second quarter and first six months of 2022 and 2021 were as follows (in millions).

	 Second	Quarte	er	First Six		x Months	
	2022		2021		2022		2021
Revenues of Operating Businesses							
Insurance:							
Underwriting:							
GEICO	\$ 9,807	\$	9,546	\$	19,361	\$	18,469
Berkshire Hathaway Primary Group	3,313		2,755		6,431		5,409
Berkshire Hathaway Reinsurance Group	4,967		4,862		9,787		9,709
Investment income	 2,284		1,459		3,648		2,873
Total insurance	20,371		18,622		39,227		36,460
BNSF	6,640		5,809		12,608		11,210
ВНЕ	6,518		6,085		12,501		12,009
Manufacturing	19,772		17,412		38,193		33,325
McLane	13,262		12,295		25,777		23,917
Service and retailing	9,617		8,977		18,732		16,935
	76,180		69,200		147,038		133,856
Reconciliation of segments to consolidated amount							
Corporate, eliminations and other	_		(86)				(143
	\$ 76,180	\$	69,114	\$	146,990	\$	133,713
						-	
	Second (Onarta	o r		First Siv	ix Months	
	 2022	Quart	2021	2022		WIOII	2021
Earnings (Loss) Before Income Taxes of Operating Businesses							
Insurance:							
Underwriting:							
GEICO	(407)	\$	626	\$	(665)	\$	1,649
GEICO	\$ (487)	J)	020	Ψ			
	\$ 242	Þ	166	Ψ	334		372
Berkshire Hathaway Primary Group	\$ 242	Ф	166	Ψ			
	\$ 242 967	Ą	166 (327)	Ψ	1,123		(590
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income	\$ 242 967 2,283	.	166 (327) 1,456	Ψ 	1,123 3,644		(590 2,868
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income Total insurance	\$ 242 967 2,283 3,005	.	166 (327) 1,456 1,921	Ψ 	1,123 3,644 4,436		(590 2,868 4,299
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income Total insurance BNSF	\$ 242 967 2,283	.	166 (327) 1,456	Ψ 	1,123 3,644 4,436 3,960		(590 2,868 4,299 3,638
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income Total insurance BNSF BHE	 242 967 2,283 3,005 2,151 564		166 (327) 1,456 1,921 1,979 739	Ψ 	1,123 3,644 4,436 3,960 1,240		(590 2,868 4,299 3,638 1,422
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income Total insurance BNSF BHE Manufacturing	\$ 242 967 2,283 3,005 2,151 564 3,028		166 (327) 1,456 1,921 1,979 739 2,714	Ψ 	1,123 3,644 4,436 3,960 1,240 5,852		(590 2,868 4,299 3,638 1,422 5,150
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income Total insurance BNSF BHE Manufacturing McLane	 242 967 2,283 3,005 2,151 564 3,028 76		166 (327) 1,456 1,921 1,979 739 2,714 84	Ψ —	1,123 3,644 4,436 3,960 1,240 5,852 158		(590 2,868 4,299 3,638 1,422 5,150 187
Berkshire Hathaway Primary Group Berkshire Hathaway Reinsurance Group Investment income Total insurance BNSF BHE Manufacturing	 242 967 2,283 3,005 2,151 564 3,028		166 (327) 1,456 1,921 1,979 739 2,714		1,123 3,644 4,436 3,960 1,240 5,852		(590 2,868 4,299 3,638 1,422 5,150

(66,919)

(100)

231

1,283

(55,482)

27,394

(144)

147

(299)

35,721

(68,897)

(204)

607

1,844

(48,670)

33,094

(258)

398

195

50,249

Results of Operations

Net earnings/loss 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	Qua	rter	First Six Months				
	 2022		2021		2022		2021	
Insurance – underwriting	\$ 581	\$	376	\$	628	\$	1,140	
Insurance – investment income	1,906		1,219		3,076		2,427	
Railroad	1,664		1,516		3,035		2,767	
Utilities and energy	766		740		1,516		1,443	
Manufacturing, service and retailing	3,249		3,004		6,274		5,623	
Investment and derivative contract gains (losses)	(53,038)		21,408		(54,618)		26,101	
Other	1,117		(169)		1,794		304	
Net earnings (loss) attributable to Berkshire Hathaway shareholders	\$ (43,755)	\$	28,094	\$	(38,295)	\$	39,805	

Through our subsidiaries, we engage in numerous diverse business activities. We manage our operating businesses on an unusually decentralized basis. There are few centralized or integrated business functions. 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 23 to the accompanying Consolidated Financial Statements) should be read in conjunction with this discussion.

In varying degrees, the COVID-19 pandemic continues to affect our operating businesses. Significant government and private sector actions have been taken since 2020 to control the spread and mitigate the economic effects of the virus. Actions in the latter part of 2021 and during 2022 included periodic temporary business closures or restrictions of business activities in various parts of the world in response to the emergence of variants of the virus. Notwithstanding these efforts, significant disruptions of supply chains and higher costs have persisted. Further, geopolitical conflicts, including the Russia-Ukraine conflict, have developed in 2022. While direct losses to-date have not been material to consolidated results, these events had indirect impacts by contributing to the disruptions of global supply chains, resulting in cost increases for goods and services in parts of the world where we operate. We cannot reliably predict future economic effects of these events on our businesses or when our operations will normalize. Nor can we reliably predict how these events will alter the future consumption patterns of consumers and businesses we serve.

Insurance underwriting after-tax earnings increased \$205 million (54.5%) in the second quarter and decreased \$512 million (44.9%) in the first six months of 2022 versus 2021. In each period, underwriting earnings from GEICO declined, primarily attributable to increases in claims frequencies and severities and lower reductions of ultimate claim estimates for prior years' losses. Underwriting earnings in 2022 from reinsurance activities increased compared to 2021, reflecting foreign currency exchange rate gains arising from the remeasurement of non-U.S. Dollar denominated liabilities on insurance contracts of our U.S. insurance subsidiaries due to strengthening of the U.S. Dollar and improved life results. After-tax earnings from insurance investment income increased 56.4% in the second quarter and 26.7% in the first six months of 2022 compared to 2021, attributable to increased dividend income and higher interest rates.

After-tax earnings of our railroad business increased 9.8% in the second quarter and 9.7% in the first six months of 2022 compared to 2021. These increases reflected higher revenue per car/unit, partly offset by lower overall freight volumes and higher fuel costs. After-tax earnings of our utilities and energy business increased 3.5% in the second quarter and 5.1% in the first six months of 2022 compared to 2021. The increases reflected higher earnings from tax equity investments and from the natural gas pipeline and Northern Powergrid businesses, partly offset by lower earnings from the U.S. regulated utilities and real estate brokerage businesses. After-tax earnings from our manufacturing, service and retailing businesses increased 8.2% in the second quarter and 11.6% in the first six months of 2022 versus 2021. Results were mixed among our various businesses. While customer demand for products and services was relatively good in the first six months of 2022, we continue to experience the negative effects of higher materials, freight, labor and other input costs.

Investment and derivative contract gains and losses in 2022 and 2021 predominantly derived from our investments in equity securities and includes unrealized gains and losses from market price changes during the period. We believe that investment and derivative gains/losses, whether realized from dispositions or unrealized from changes in market prices of equity securities, are generally meaningless in understanding our reported quarterly or annual results or in evaluating the economic performance of our businesses. These gains and losses have caused and will continue to cause significant volatility in our periodic earnings. Other earnings included after-tax foreign currency exchange gains related to non-U.S. Dollar denominated debt of \$1.1 billion in the second quarter and \$1.6 billion in the first six months of 2022, compared to after-tax losses of \$45 million and after-tax gains of \$480 million in the second quarter and first six months of 2021, respectively.

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 and losses. We consider investment income as an integral component of our aggregate insurance operating results. However, we consider investment gains and losses, whether realized or unrealized, as non-operating. We believe that such gains and losses are not meaningful in understanding the quarterly or annual operating results of our insurance businesses.

The timing and magnitude of catastrophe losses can produce significant volatility in our periodic underwriting results, particularly with respect to our reinsurance businesses. Generally, we consider incurred losses exceeding \$100 million from a current year catastrophic event to be significant. Significant catastrophe events in the first six months included floods in Australia and South Africa in 2022 and Winter Storm Uri in 2021.

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 approximately \$126 billion as of June 30, 2022. 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 liabilities of our U.S. based insurance subsidiaries due to foreign currency exchange rate fluctuations.

Underwriting results of certain of our commercial insurance and reinsurance businesses have been affected by estimated losses and costs associated with the COVID-19 pandemic. While the effects of the pandemic on underwriting results in the first six months of 2022 were insignificant, results in future periods may be affected by legal and regulatory actions pertaining to insurance coverage, which we cannot reasonably estimate at this time.

We provide primary insurance and reinsurance products covering property and casualty risks, as well as life and health risks. Our insurance and reinsurance businesses are GEICO, Berkshire Hathaway Primary Group and Berkshire Hathaway Reinsurance Group. Underwriting results of our insurance businesses are summarized below (dollars in millions).

	Second Qu	uarter		onths	
	2022	2021		2022	2021
Pre-tax underwriting earnings (loss):					
GEICO	\$ (487) 5	\$ 626	\$	(665) \$	1,649
Berkshire Hathaway Primary Group	242	166		334	372
Berkshire Hathaway Reinsurance Group	967	(327)		1,123	(590)
Pre-tax underwriting earnings	722	465		792	1,431
Income taxes and noncontrolling interests	141	89		164	291
Net underwriting earnings	\$ 581	\$ 376	\$	628 \$	1,140
Effective income tax rate	19.4%	19.0%		20.7%	20.3%

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							
	2022	2	202	1	202	2	202	1				
	Amount	%	Amount	Amount %		%	Amount	%				
Premiums written	\$ 9,416		\$ 9,230		\$19,681		\$19,236					
Premiums earned	\$ 9,807	100.0	\$ 9,546	100.0	\$19,361	100.0	\$18,469	100.0				
Losses and loss adjustment expenses	9,105	92.8	7,617	79.8	17,649	91.2	14,080	76.2				
Underwriting expenses	1,189	12.2	1,303	13.6	2,377	12.2	2,740	14.9				
Total losses and expenses	10,294	105.0	8,920	93.4	20,026	103.4	16,820	91.1				
Pre-tax underwriting earnings (loss)	<u>\$ (487)</u>		\$ 626		\$ (665)		\$ 1,649					

Insurance—Underwriting (Continued)

GEICO (Continued)

GEICO's pre-tax underwriting loss in the first half of 2022 reflected increased claims severities, primarily due to significant cost inflation in automobile markets, which began to accelerate in the second half of 2021. Increases in used car prices are producing increased claims severities on total losses and shortages of car parts are contributing to increased claims severities on partial losses. In addition, injury claims severities continue to trend higher than general inflation rates.

Premiums written increased \$186 million (2.0%) in the second quarter and \$445 million (2.3%) in the first six months of 2022 compared to 2021. The increases were primarily attributable to increases in average premiums per auto policy due to rate increases, partially offset by a decrease in policies in-force. Premiums earned increased \$261 million (2.7%) in the second quarter and \$892 million (4.8%) in the first six months of 2022 compared to 2021. Premiums earned in the first six months of 2021 included a reduction of approximately \$460 million attributable to the remaining impact of the GEICO Giveback program that provided a 15% premium credit to new and renewing voluntary auto and motorcycle policies written between April 8, 2020 and October 7, 2020.

Losses and loss adjustment expenses increased \$1.5 billion (19.5%) in the second quarter and \$3.6 billion (25.3%) in the first six months of 2022 compared to 2021. GEICO's ratio of losses and loss adjustment expenses to premiums earned was 92.8% in the second quarter and 91.2% in the first six months of 2022, increases of 13.0 percentage points and 15.0 percentage points, respectively, compared to the same periods in 2021, which reflected increases in claims frequencies and severities for the current year and lower reductions of loss estimates for prior years' loss events.

Claims frequencies in the first six months of 2022 were higher for all coverages, including property damage (four to five percent range), collision (ten to eleven percent range), bodily injury (six to seven percent range) and personal injury (seven to eight percent range). Average claims severities in the first six months of 2022 were higher for property damage coverage (eleven to twelve percent range), collision coverage (nineteen to twenty percent range) and bodily injury coverage (nine to eleven percent range). Losses and loss adjustment expenses reflected reductions in the ultimate loss estimates for prior years' loss events of \$207 million in the first six months of 2022 compared to \$846 million in the first six months of 2021. The reductions in 2022 reflected decreases for bodily and personal injury coverages, partially offset by increases for collision and property damage coverages, while the reductions in 2021 were across all major coverages.

Underwriting expenses decreased \$114 million (8.7%) in the second quarter and \$363 million (13.2%) in the first six months of 2022 compared to 2021, reflecting lower advertising costs in both periods and lower employee-related costs in the first six months. GEICO's expense ratio (underwriting expense to premiums earned) was 12.2% in the second quarter and first six months of 2022, decreases of 1.4 percentage points and 2.7 percentage points, respectively, compared to the same periods in 2021, attributable to both the decreases in expenses as well as the increases in earned premiums.

Berkshire Hathaway Primary Group

The Berkshire Hathaway Primary Group ("BH Primary") provides a variety of commercial insurance solutions, including healthcare professional liability, workers' compensation, automobile, general liability, property and specialty coverages for small, medium and large clients. BH Primary's larger insurers include Berkshire Hathaway Specialty Insurance ("BH Specialty"), Berkshire Hathaway Homestate Companies ("BHHC"), MedPro Group, Berkshire Hathaway GUARD Insurance Companies ("GUARD"), National Indemnity Company ("NICO Primary") and U.S. Liability Insurance Company ("USLI"). A summary of BH Primary underwriting results follows (dollars in millions).

		Second	Quarter		First Six Months							
	202	2	202	1	202	2	202	1				
	Amount	%	Amount	<u>%</u>	Amount	<u>%</u>	Amount	<u>%</u>				
Premiums written	\$ 3,504		\$ 2,943		\$ 6,896		\$ 5,851					
Premiums earned	\$ 3,313	100.0	\$ 2,755	100.0	\$ 6,431	100.0	\$ 5,409	100.0				
Losses and loss adjustment expenses	2,243	67.7	1,955	71.0	4,517	70.2	3,804	70.3				
Underwriting expenses	828	25.0	634	23.0	1,580	24.6	1,233	22.8				
Total losses and expenses	3,071	92.7	2,589	94.0	6,097	94.8	5,037	93.1				
Pre-tax underwriting earnings	<u>\$ 242</u>		<u>\$ 166</u>		\$ 334		\$ 372					

Premiums written increased \$561 million (19.1%) in the second quarter and \$1.0 billion (17.9%) in the first six months of 2022 compared to 2021, reflecting year-to-date increases at BH Specialty (26%), USLI (17%) and BHHC (14%). The increases were primarily on property and casualty coverages in the U.S. across several markets.

Insurance—Underwriting (Continued)

Berkshire Hathaway Primary Group (Continued)

BH Primary's loss ratio was 67.7% in the second quarter and 70.2% in the first six months of 2022, a decrease of 3.3 percentage points in the second quarter and relatively unchanged in the first six months compared to 2021. Losses and loss adjustment expenses from significant catastrophe events were \$75 million in the first six months of 2022 compared to \$156 million in 2021. Losses and loss adjustment expenses also included net reductions in estimated ultimate liabilities for prior years' loss events of \$106 million in the first six months of 2022 compared to \$253 million in 2021. BH Primary insurers write significant levels of workers' compensation, commercial and professional liability insurance and the related claim costs may be subject to high severity and long claim-tails. 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.

Underwriting expenses increased \$194 million (30.6%) in the second quarter and \$347 million (28.1%) in the first six months of 2022 compared to the same periods in 2021. The expense ratio increased 2.0 percentage points in the second quarter and 1.8 percentage points in the first six months compared to 2021. These increases reflected costs associated with new business development and changes in business mix.

Berkshire Hathaway Reinsurance Group

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

Generally, we strive to generate underwriting profits. However, time-value-of-money concepts are important elements in establishing prices for retroactive reinsurance and periodic payment annuity business due to the expected long durations of the claim liabilities. We expect to incur pre-tax underwriting losses from such business, primarily 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										
	Premiums earned			Pre-tax underwriting earnings (loss)				remiun	ıs ea	rned	Pre-tax underwrite earnings (loss)							
	2022	2021	2	2022 2021		2021		2021		2021		022		2021		2022		2021
Property/casualty	\$ 3,531	\$ 3,354	\$	976	\$	202	\$ (6,930	\$	6,748	\$	1,381	\$	368				
Life/health	1,265	1,299		75		(169)	2	2,513		2,604		63		(341)				
Retroactive reinsurance	_	82		(52)		(220)		_		82		(242)		(462)				
Periodic payment annuity	168	123		(27)		(144)		337		267		(130)		(280)				
Variable annuity	3	4		(5)		4		7		8		51		125				
	\$ 4,967	\$ 4,862	\$	967	\$	(327)	\$ 9	9,787	\$	9,709	\$	1,123	\$	(590)				

Property/casualty

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

		Second	Quarter		First Six Months							
	202	2	202	1	202	22	202	1				
	Amount	<u>%</u>	Amount	Amount %			_Amount_					
Premiums written	\$ 4,159		\$ 3,426		\$ 8,545		\$ 7,809					
Premiums earned	\$ 3,531	100.0	\$ 3,354	100.0	\$ 6,930	100.0	\$ 6,748	100.0				
Losses and loss adjustment expenses	2,067	58.5	2,296	68.5	4,374	63.1	4,703	69.7				
Underwriting expenses	488	13.9	856	25.5	1,175	17.0	1,677	24.8				
Total losses and expenses	2,555	72.4	3,152	94.0	5,549	80.1	6,380	94.5				
Pre-tax underwriting earnings	\$ 976		\$ 202		\$ 1,381		\$ 368					

Insurance—Underwriting (Continued)

Berkshire Hathaway Reinsurance Group (Continued)

Property/casualty (Continued)

Premiums written increased \$733 million (21.4%) in the second quarter and \$736 million (9.4%) in the first six months of 2022 compared to the same periods in 2021, reflecting net increases from new property business and rates, partially offset by unfavorable foreign currency translation effects. Losses and loss adjustment expenses decreased \$229 million (10.0%) in the second quarter and \$329 million (7.0%) in the first six months, while the loss ratio declined 10.0 percentage points in the second quarter and 6.6 percentage points in the first six months of 2022 compared to 2021. Losses incurred arising from significant catastrophe events were \$443 million in the second quarter and \$758 million in the first six months of 2022, which were partially offset by reductions in estimated ultimate liabilities for losses occurring in prior years of \$437 million in the second quarter and \$574 million in the first six months. Losses incurred from significant catastrophe events were \$108 million in the second quarter and \$418 million in the first six months of 2021. Changes in estimated ultimate liabilities for prior years' loss events were relatively insignificant in the second quarter and first six months of 2021.

Underwriting expenses as percentages of premiums earned decreased 11.6 percentage points in the second quarter and 7.8 percentage points in the first six months of 2022 compared to 2021, primarily attributable to foreign currency effects and changes in business mix. Underwriting expenses included foreign currency exchange gains of \$308 million in the second quarter and \$389 million in the first six months of 2022, primarily related to a third quarter 2021 intercompany reinsurance agreement in which a non-U.S. based Berkshire subsidiary ceded non-U.S. Dollar denominated liabilities to a U.S. based Berkshire subsidiary. Under U.S. GAAP, the effects of exchange rate changes from the remeasurement of liabilities assumed by the U.S. subsidiary are reflected in earnings as its functional currency is the U.S. Dollar. The net foreign currency exchange rate effects from translating the financial statements of the non-U.S. subsidiary to the U.S. Dollar are included in other comprehensive income.

Life/health

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

		Second	Quarter		First Six Months							
	202	2	202	1	202	2	202	1				
	Amount	<u>%</u>	Amount %		Amount	<u>%</u>	Amount	<u>%</u>				
Premiums written	\$ 1,249		\$ 1,296		\$ 2,492		\$ 2,597					
Premiums earned	\$ 1,265	100.0	\$ 1,299	100.0	\$ 2,513	100.0	\$ 2,604	100.0				
Life and health insurance benefits	964	76.2	1,235	95.1	2,015	80.2	2,486	95.5				
Underwriting expenses	226	17.8	233	17.9	435	17.3	459	17.6				
Total benefits and expenses	1,190	94.0	1,468	113.0	2,450	97.5	2,945	113.1				
Pre-tax underwriting earnings (loss)	<u>\$ 75</u>		<u>\$ (169)</u>		<u>\$ 63</u>		<u>\$ (341)</u>					

Life/health premiums written decreased \$47 million (3.6%) in the second quarter and \$105 million (4.0%) in the first six months of 2022 compared to the same periods in 2021, primarily due to lower volumes in the Asia Pacific and North America regions and from unfavorable foreign currency translation effects. Life and health benefits declined \$271 million (21.9%) in the second quarter and \$471 million (18.9%) in the first six months of 2022 compared to 2021, attributable to lower mortality. Underwriting results in 2021 were negatively affected by significant, pandemic-related increases in mortality in the U.S., South Africa, India and Latin America.

Retroactive reinsurance

Pre-tax underwriting losses in each period derived from the amortization of deferred charges and changes in the estimated timing and amounts of future claim payments. Underwriting results also include foreign currency exchange gains and losses from the effects of changes in foreign currency exchange rates on non-U.S. Dollar denominated liabilities of our U.S. subsidiaries. Foreign currency exchange gains were \$157 million in the first six months of 2022, substantially all of which was in the second quarter. Foreign currency exchange gains/losses were insignificant in the corresponding 2021 periods. Pre-tax underwriting losses before foreign currency exchange effects were \$204 million in the second quarter and \$399 million in the first six months of 2022 compared to \$220 million in the second quarter and \$463 million in the first six months of 2021.

Unpaid losses assumed under retroactive reinsurance contracts declined \$1.0 billion in the first six months of 2022 to \$37.2 billion at June 30, 2022, primarily due to loss payments. Unamortized deferred charges related to retroactive reinsurance contracts declined \$426 million in the first six months of 2022 to \$10.2 billion at June 30, 2022, primarily attributable to periodic amortization. Deferred charge amortization will be included in underwriting earnings over the expected remaining claims settlement periods.

Insurance—Underwriting (Continued)

Berkshire Hathaway Reinsurance Group (Continued)

Periodic payment annuity

Periodic payment annuity premiums earned increased \$45 million (36.6%) in the second quarter and \$70 million (26.2%) in the first six months of 2022 compared to the same periods in 2021. Periodic payment annuity business is both price and demand sensitive and the supply of available business is affected by the timing of underlying legal claim settlements. Our volumes written may 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, as well as 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 gains or losses from the effects of changes in mortality and interest rates and from foreign currency exchange rate changes on non-U.S. Dollar denominated liabilities of our U.S. subsidiaries. Pre-tax underwriting results included foreign currency gains of \$116 million in the second quarter and \$160 million in the first six months of 2022 compared to losses of \$10 million in the second quarter and \$20 million in the first six months of 2021.

Pre-tax underwriting losses before foreign currency exchange effects were \$143 million in the second quarter and \$290 million in the first six months of 2022 and \$134 million in the second quarter and \$260 million in the first six months of 2021. Discounted annuity liabilities were \$15.4 billion at June 30, 2022 and had a weighted average discount rate of approximately 3.9%.

Variable annuity

Variable annuity guarantee reinsurance contracts produced pre-tax losses of \$5 million in the second quarter and gains of \$51 million in the first six months of 2022 compared to pre-tax gains of \$4 million in the second quarter and \$125 million in the first six months of 2021. The results from these contracts are affected by changes in securities markets, interest rates and foreign currency exchange rates, which can be volatile, and from the periodic amortization of expected profit margins. Underwriting earnings in the first six months of 2022 and 2021 were primarily attributable to the net effects of interest rate changes and changes in securities markets which were unfavorable in 2022 and favorable in 2021.

Insurance—Investment Income

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

	 Second	rter		First Six	Moı	nths	Percentage	Change	
	2022		2021	2022			2021	Second Quarter	First Six Months
Dividend income	\$ 2,055	\$	1,298	\$	3,252	\$	2,551	58.3%	27.5%
Interest and other investment income	 228		158		392		317	44.3	23.7
Pre-tax net investment income	2,283		1,456		3,644		2,868	56.8	27.1
Income taxes and noncontrolling interests	377		237		568		441		
Net investment income	\$ 1,906	\$	1,219	\$	3,076	\$	2,427		
Effective income tax rate	16.5%	6 <u> </u>	16.3%	<u> </u>	15.6%	<u>б</u>	15.4%		

Dividend income increased 58.3% in the second quarter and 27.5% in the first six months of 2022 compared to 2021. The increases in 2022 reflected an overall increase in equity security investments during the first six months of 2022. Dividend income also varies from period to period due to changes in the investment portfolio and the frequency and timing of dividends from certain investees. Dividend income included \$13 million in the second quarter and \$29 million in the first six months of 2022 and \$37 million in the second quarter and \$75 million in the first six months of 2021 from investments in preferred stock of Berkshire Hathaway Energy. Such amounts are deducted from earnings of the utilities and energy segment.

Interest and other investment income increased 44.3% in the second quarter and 23.7% in the first six months of 2022 compared to the same periods in 2021. The increases were primarily due to increases in short-term interest rates. We continue to hold substantial balances of cash, cash equivalents and short-term U.S. Treasury Bills. While exceptionally low interest rates prevailed in recent years, interest rates began to increase during 2022. The effects of such increases are expected to be reflected in our earnings as maturing investments are replaced by new investments. We continue to believe that maintaining ample liquidity is paramount and we insist on safety over yield with respect to short-term investments.

Insurance—Investment Income (Continued)

Invested assets of our insurance businesses derive from shareholder capital and from net liabilities under insurance and reinsurance 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, which are reduced by insurance premiums receivable, reinsurance receivables, deferred charges assumed under retroactive reinsurance contracts and deferred policy acquisition costs. Float approximated \$147 billion at June 30, 2022 and December 31, 2021. Our combined insurance operations generated pre-tax underwriting earnings in the first six months of 2022 and 2021, and consequently, the average cost of float for each period was negative. A summary of cash and investments held in our insurance businesses as of June 30, 2022 and December 31, 2021 follows (in millions).

	June 30, 2022	D	2021
Cash, cash equivalents and U.S. Treasury Bills	\$ 58,034	\$	90,688
Equity securities	312,777		334,907
Fixed maturity securities	21,028		16,386
Other	 3,421		4,296
	\$ 395,260	\$	446,277

Fixed maturity securities as of June 30, 2022 were as follows (in millions).

	A1	mortized Cost	_	realized s (Losses)	Carrying Value
U.S. Treasury, U.S. government corporations and agencies	\$	8,884	\$	(152)	\$ 8,732
Foreign governments		10,880		(107)	10,773
Corporate bonds		981		255	1,236
Other		260		27	287
	\$	21,005	\$	23	\$ 21,028

U.S. government obligations are rated AA+ or Aaa by the major rating agencies. Approximately 94% of all foreign government obligations were rated AA or higher by at least one of the major rating agencies as of June 30, 2022. Foreign government securities include obligations issued or unconditionally guaranteed by national or provincial government entities.

Railroad

Burlington Northern Santa Fe, LLC ("BNSF") operates one of the largest railroad systems in North America, with over 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 including consumer products, industrial products, agricultural products and coal. A summary of BNSF's earnings follows (dollars in millions).

	 Second Q)uart	er		First Six M	Months		
	 2022		2021	2022			2021	
Railroad operating revenues	\$ 6,454	\$	5,609	\$	12,231	\$	10,830	
Railroad operating expenses:								
Compensation and benefits	1,213		1,145		2,437		2,309	
Fuel	1,276		693		2,137		1,243	
Purchased services	509		510		1,008		1,015	
Depreciation and amortization	618		608		1,242		1,224	
Equipment rents, materials and other	 460		433		986		924	
Total	4,076		3,389		7,810		6,715	
Railroad operating earnings	2,378		2,220		4,421		4,115	
Other revenues (expenses):								
Other revenues	186		200		377		380	
Other expenses, net	(159)		(180)		(329)		(338)	
Interest expense	(254)		(261)		(509)		(519)	
Pre-tax earnings	2,151		1,979		3,960		3,638	
Income taxes	487		463		925		871	
Net earnings	\$ 1,664	\$	1,516	\$	3,035	\$	2,767	
Effective income tax rate	22.6%		23.4%		23.4%		23.9%	

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Railroad (Continued)

The following table summarizes BNSF's railroad freight volumes by business group (cars/units in thousands).

		Cars/U	Percentage C	Change		
	Second C	Quarter	First Six	Months	Second	First Six
	2022	2021	2022	2021	Quarter	Months
Consumer products	1,379	1,489	2,654	2,882	(7.4)%	(7.9)%
Industrial products	421	438	824	837	(3.9)	(1.6)
Agricultural products	303	313	608	631	(3.2)	(3.6)
Coal	373	384	759	723	(2.9)	5.0
	2,476	2,624	4,845	5,073	(5.6)	(4.5)

Railroad operating revenues increased 15.1% in the second quarter and 12.9% in the first six months of 2022 compared to 2021 primarily due to a 21.9% quarter-to-date and a 17.9% year-to-date increase in average revenue per car/unit resulting from higher fuel surcharge revenue driven by higher fuel prices, along with increased rates per car/unit. Railroad operating revenues reflected lower volumes of 5.6% in the second quarter and 4.5% in the first six months of 2022 compared to 2021. Pre-tax earnings increased 8.7% in the second quarter and 8.9% in the first six months of 2022 compared to 2021.

Operating revenues from consumer products were \$2.5 billion in the second quarter and \$4.5 billion in the first six months of 2022, increases of 17.6% and 14.1%, respectively, from 2021. The increases reflected higher average revenue per car/unit, partially offset by volume decreases of 7.4% in the second quarter and 7.9% in the first six months of 2022 as compared to 2021. The volume decreases were primarily due to lower international intermodal shipments resulting from supply chain disruptions, partially offset by modest increases in domestic intermodal and automotive volumes.

Operating revenues from industrial products were \$1.5 billion in the second quarter and \$2.8 billion in the first six months of 2022, increases of 7.8% and 6.9%, respectively, from 2021. The increases reflected higher average revenue per car/unit, partially offset by volume decreases of 3.9% in the second quarter and 1.6% in the first six months of 2022 as compared to 2021. The volume decreases were primarily due to a decrease in petroleum shipments related to lower demand for crude by rail and network challenges, with the decrease in the first six months partially offset by increased volumes in other product categories.

Operating revenues from agricultural products were \$1.4 billion in the second quarter and \$2.7 billion in the first six months of 2022, increases of 9.1% and 6.4%, respectively, compared to 2021. The increases were primarily attributable to higher average revenue per car/unit, partially offset by decreased volumes of 3.2% in the second quarter and 3.6% in the first six months of 2022 as compared to 2021. The volume decreases were primarily due to lower grain exports, partially offset by higher volumes of renewable diesel and oil feedstocks.

Operating revenues from coal were \$1.0 billion in the second quarter and \$1.9 billion in the first six months of 2022, increases of 30.2% and 29.9%, respectively, from 2021. The increases were primarily attributable to higher average revenue per car/unit. Volumes decreased 2.9% in the second quarter primarily due to network challenges, while volumes increased 5.0% in the first six months of 2022 due to increased electricity generation, higher natural gas prices and improved export demand.

Railroad operating expenses were \$4.1 billion in the second quarter and \$7.8 billion in the first six months of 2022, increases of \$687 million (20.3%) and \$1.1 billion (16.3%), respectively, compared to 2021, primarily due to significant increases in the cost of fuel, as well as higher compensation and benefits expenses. Our ratio of railroad operating expenses to railroad operating revenues increased 2.8 percentage points to 63.2% in the second quarter and 1.9 percentage points to 63.9% in the first six months of 2022 versus the comparable 2021 periods.

Compensation and benefits expenses increased \$68 million (5.9%) in the second quarter and \$128 million (5.5%) in the first six months of 2022 compared to 2021, primarily due to wage inflation, health and welfare costs and lower productivity. Fuel expenses increased \$583 million (84.1%) in the second quarter and \$894 million (71.9%) in the first six months of 2022 compared to 2021, primarily due to higher fuel prices, partially offset by lower volumes.

Utilities and Energy

We currently own 92% of Berkshire Hathaway Energy Company ("BHE"), which operates a global energy business. BHE's domestic regulated utility interests include PacifiCorp, MidAmerican Energy Company ("MEC") and NV Energy. BHE subsidiaries also operate two regulated electricity distribution businesses referred to as Northern Powergrid in Great Britain. BHE's natural gas pipelines consist of five domestic regulated interstate natural gas pipeline systems and a 25% interest in a liquefied natural gas export, import and storage facility ("LNG interest"), which BHE operates and consolidates for financial reporting purposes. 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 and investments. BHE also operates a residential real estate brokerage business and a large network of residential real estate brokerage franchises in the United States.

The rates our regulated businesses charge customers for energy and services are largely based 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. A summary of BHE's net earnings follows (dollars in millions).

	Second (Quar	ter		First Six	Mont	nths	
	2022		2021	2022			2021	
Revenues:								
Energy operating revenue	\$ 4,940	\$	4,301	\$	9,763	\$	9,150	
Real estate operating revenue	1,672		1,763		2,879		2,995	
Other income (loss)	(94)		21		(141)		(136)	
Total revenue	6,518		6,085		12,501		12,009	
Costs and expense:								
Energy cost of sales	1,525		1,110		2,985		2,679	
Energy operating expense	2,343		2,134		4,496		4,170	
Real estate operating costs and expense	1,555		1,584		2,734		2,704	
Interest expense	531		518		1,046		1,034	
Total costs and expense	5,954		5,346		11,261		10,587	
Pre-tax earnings	564		739		1,240		1,422	
Income tax expense (benefit)*	(421)		(212)		(704)		(444)	
Net earnings after income taxes	985		951		1,944		1,866	
Noncontrolling interests of BHE subsidiaries	120		102		229		208	
Net earnings attributable to BHE	865		849		1,715		1,658	
Noncontrolling interests and preferred stock dividends	99		109		199		215	
Net earnings attributable to Berkshire Hathaway shareholders	\$ 766	\$	740	\$	1,516	\$	1,443	
Effective income tax rate	(74.6)%) <u>=</u>	(28.7)%		(56.8)%		(31.2)%	

^{*} Includes significant production tax credits from wind-powered electricity generation.

The discussion of BHE's operating results that follows is based on after-tax earnings, reflecting how the energy businesses are managed and evaluated. A summary of net earnings attributable to BHE follows (dollars in millions).

	Second Quarter					First Six	Mor	nths	Percentage Change		
		2022		2021		2022		2021	Second Quarter	First Six Months	
PacifiCorp	\$	83	\$	226	\$	213	\$	395	(63.3)%	(46.1)%	
MidAmerican Energy Company		204		211		445		355	(3.3)	25.4	
NV Energy		93		100		122		134	(7.0)	(9.0)	
Northern Powergrid		71		(25)		182		79	*	130.4	
Natural gas pipelines		188		100		497		483	88.0	2.9	
Other energy businesses		310		229		483		291	35.4	66.0	
Real estate brokerage		84		135		105		219	(37.8)	(52.1)	
Corporate interest and other		(168)		(127)		(332)		(298)	32.3	11.4	
	\$	865	\$	849	\$	1,715	\$	1,658	1.9	3.4	

Not meaningful.

Utilities and Energy (Continued)

PacifiCorp operates a regulated electric utility in portions of several Western states, including Utah, Oregon and Wyoming. After-tax earnings decreased \$143 million in the second quarter and \$182 million in the first six months of 2022 as compared to 2021. The decreases reflected higher operating expenses and lower income tax benefits mainly from lower production tax credits recognized, partially offset by slight increases in utility margin (operating revenue less cost of sales). The increases in operating expenses reflected higher costs associated with wildfires, higher general and plant maintenance costs and incremental costs from additional assets placed in-service.

PacifiCorp's utility margin was \$863 million in the second quarter and \$1.7 billion in the first six months of 2022, increases of \$6 million and \$20 million, respectively, from the comparable periods in 2021. The increases reflected higher operating revenue from favorable retail and wholesale pricing, partially offset by lower operating revenue from decreases in retail customer volumes and higher thermal generation costs. Retail customer volumes decreased 3.3% in the second quarter and 0.7% in the first six months of 2022 compared to 2021, primarily due to the unfavorable impact of weather and lower customer usage, partially offset by an increase in the average number of customers.

MEC operates a regulated electric and natural gas utility primarily in Iowa and Illinois. After-tax earnings decreased \$7 million in the second quarter and increased \$90 million in the first six months of 2022 compared to 2021. The increase for the first six months reflected higher electric utility margin and increased income tax benefits, partly offset by higher operating expenses. The increase in operating expenses included higher costs associated with certain regulatory mechanisms as well as incremental costs associated with additional wind-powered generating facilities placed in-service. The income tax benefit increase was mainly due to higher production tax credits recognized on new wind-powered generating facilities placed in-service, partially offset by the impacts of ratemaking.

MEC's electric utility margin was \$551 million in the second quarter and \$1.0 billion in the first six months of 2022, increases of 14% and 18%, respectively, versus 2021. The increases were attributable to higher operating revenue from increased retail and wholesale customer volumes and favorable wholesale pricing, partially offset by higher purchased power costs. Electric retail customer volumes increased 3.3% in the second quarter and 4.4% in the first six months of 2022 as compared to 2021, primarily due to higher customer usage and the favorable impact of weather.

NV Energy operates regulated electric and natural gas utilities in Nevada. After-tax earnings decreased \$7 million in the second quarter and \$12 million in the first six months of 2022 compared to 2021. The decreases reflected higher operating expenses from increased plant operations and maintenance expenses, higher comparative accruals for earnings sharing and incremental costs from additional assets placed in-service.

NV Energy's electric utility margin was \$404 million in the second quarter and \$710 million in the first six months of 2022, relatively unchanged compared to 2021. Electric retail customer volumes increased 0.4% in the second quarter and 2.0% in the first six months of 2022 compared to 2021, primarily due to an increase in the average number of customers and higher customer usage, partially offset by the unfavorable impact of weather.

Northern Powergrid's after-tax earnings increased \$96 million in the second quarter and \$103 million in the first six months of 2022 as compared to 2021, reflecting the impact on deferred income taxes in 2021 from an increase in the United Kingdom income tax rate, partially offset by unfavorable foreign currency exchange rate movements in 2022. Earnings in each period of 2021 included deferred income tax expense of \$109 million related to the enactment in June 2021 of an increase in the United Kingdom income tax rate from 19% to 25%, effective April 1, 2023.

Natural gas pipelines' after-tax earnings increased \$88 million in the second quarter and \$14 million in the first six months of 2022 compared to 2021. The increases were primarily due to higher earnings at BHE GT&S, largely from favorable state income tax adjustments, the impacts of an agreement in principle related to a general rate case and lower operating expenses. The year-to-date increase was offset by higher margins on natural gas sales and higher transportation revenue in the first quarter of 2021 due to an increase in demand as a result of the February 2021 winter storms.

Other energy businesses' after-tax earnings increased \$81 million in the second quarter and \$192 million in the first six months of 2022 compared to 2021. The increases in earnings were primarily due to increased wind tax equity investment earnings of \$40 million in the second quarter and \$158 million in the first six months of 2022 as well as from higher operating revenue from owned renewable energy projects. The increases in wind tax equity investment earnings reflected increased income tax benefits from projects reaching commercial operation over the past twelve months. The comparative increase in year-to-date earnings also reflected the impact of significant losses in the first quarter of 2021 on pre-existing tax equity investments due to the February 2021 winter storms.

Real estate brokerage after-tax earnings decreased \$51 million in the second quarter and \$114 million in the first six months of 2022 compared to 2021. The decreases in earnings were primarily attributable to lower earnings from mortgage services due to a decrease in funded volume and in refinancing activity, and lower earnings from brokerage and settlement services from a decrease in closed units at existing companies.

Utilities and Energy (Continued)

Corporate interest and other after-tax losses increased \$41 million in the second quarter and \$34 million in the first six months of 2022 compared to 2021, reflecting lower federal income tax credits recognized, partially offset by higher earnings from non-regulated energy services in the first six months.

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	Mor	Percentage	Change	
	2022			2021	2022			2021	Second Quarter	First Six Months
Revenues										
Manufacturing	\$	19,772	\$	17,412	\$	38,193	\$	33,325	13.6%	14.6%
Service and retailing		22,879		21,272		44,509		40,852	7.6	9.0
	\$	42,651	\$	38,684	\$	82,702	\$	74,177		
Pre-tax earnings										
Manufacturing	\$	3,028	\$	2,714	\$	5,852	\$	5,150	11.6%	13.6%
Service and retailing		1,275		1,270		2,492		2,311	0.4	7.8
		4,303		3,984		8,344		7,461		
Income taxes and noncontrolling interests		1,054		980		2,070		1,838		
Net earnings*	\$	3,249	\$	3,004	\$	6,274	\$	5,623		
Effective income tax rate		24.0%	5	24.1 %	6	24.3%	ó	24.1%		
Pre-tax earnings as a percentage of revenues		10.1%	, — =	10.3%	6 <u> </u>	10.1%		10.1%		

^{*} Excludes certain acquisition accounting expenses, primarily related to the amortization of identifiable intangible assets recorded in connection with our business acquisitions. The after-tax acquisition accounting expenses excluded from earnings were \$162 million in the second quarter and \$323 million in the first six months of 2022 and \$183 million in the second quarter and \$363 million in the first six months of 2021. These expenses are included in "Other" in the summary of earnings on page 24 and in the "Other" earnings section on page 40.

Manufacturing

Our manufacturing group includes a variety of industrial, building and consumer products businesses. A summary of revenues and pre-tax earnings of these operations follows (dollars in millions).

		Second	Quart	er	First Six Months			
	2022		2021		2022			2021
Revenues								
Industrial products	\$	7,714	\$	7,186	\$	15,189	\$	13,858
Building products		7,710		6,402		14,422		12,030
Consumer products		4,348		3,824		8,582		7,437
	\$	19,772	\$	17,412	\$	38,193	\$	33,325
Pre-tax earnings								
Industrial products	\$	1,270	\$	1,242	\$	2,486	\$	2,384
Building products		1,307		973		2,451		1,743
Consumer products		451		499		915		1,023
	\$	3,028	\$	2,714	\$	5,852	\$	5,150
Pre-tax earnings as a percentage of revenues								
Industrial products	16.59)	17.3%	6 16.4%)	17.2%
Building products		17.0%)	15.2%	6 17.0%)	14.5%
Consumer products		10.4%	13.0%		6 10.7%)	13.8%

Manufacturing, Service and Retailing (Continued)

Industrial products

The industrial products group includes metal products for aerospace, power and general industrial markets (Precision Castparts Corp. ("PCC")), specialty chemicals (The Lubrizol Corporation ("Lubrizol")), metal cutting tools/systems (IMC International Metalworking Companies ("IMC")) and Marmon, which consists of more than 100 autonomous manufacturing and service businesses, internally aggregated into eleven groups, and includes leasing for the rail, intermodal tank container and mobile crane industries. The industrial products group also includes equipment and systems for the livestock and agricultural industries (CTB International) and a variety of industrial products for diverse markets (Scott Fetzer and LiquidPower Specialty Products).

Revenues of the industrial products group increased \$528 million (7.3%) in the second quarter and \$1.3 billion (9.6%) in the first six months of 2022 compared to 2021. Pre-tax earnings increased \$28 million (2.3%) in the second quarter and \$102 million (4.3%) in the first six months of 2022 compared to 2021. Pre-tax earnings as a percentage of revenues for the group were 16.4% for the first six months of 2022, a decrease of 0.8 percentage points compared to 2021. Operating results in 2022 were negatively affected by a combination of higher materials and energy costs, manufacturing inefficiencies attributable to supply chain disruptions and labor shortages and asset impairment charges, which largely offset the impacts of increased average selling prices and increased demand for certain product categories. Operating results of this group's international businesses were also negatively impacted in 2022 by the stronger U.S. Dollar.

PCC's revenues were \$1.8 billion in the second quarter and \$3.6 billion in the first six months of 2022, increases of 13.3% in the second quarter and 13.0% in the first six months compared to 2021. PCC derives significant revenues and earnings from sales of aerospace products. The revenue increases in 2022 were primarily attributable to higher demand for aerospace products, and to a lesser extent, general industrial products.

While commercial air travel increased in both the U.S. and international markets, traffic remains below pre-COVID-19 pandemic levels, especially for international routes. Long-term industry forecasts continue to show growth and strong demand for air travel and aerospace products. However, further recovery likely will continue to be uneven, attributable in part to travel restrictions imposed from time-to-time to control the spread of variants of the COVID-19 virus, as well as from the changes in supply chain conditions, including the availability of workers.

Commercial aircraft delivery rates by original equipment manufacturers of narrow-body aircraft have rebounded since the onset of the pandemic. However, deliveries of wide-body aircraft remain relatively low, in part attributable to the pause in the Boeing 787 program, as it works through production quality issues.

PCC's pre-tax earnings increased \$7 million in the second quarter and \$24 million in the first six months of 2022 compared to 2021, reflecting the impact of increased revenues, substantially offset by a year-to-date reduction in pension plan income of \$29 million, materials and utilities cost inflation and manufacturing inefficiencies attributable to worker shortages. PCC management continues to take actions to improve operations, maintain safety and prepare for increased demand for PCC's products. Growth in PCC's revenues and earnings will be predicated on the ability to increase production levels to match the significant growth in aerospace demand, as well as resolution of the quality issues associated with the Boeing 787.

Lubrizol's revenues were approximately \$1.7 billion in the second quarter and \$3.4 billion in the first six months of 2022, increases of 3.5% in the second quarter and 0.5% in the first six months compared to 2021. The revenue increases reflected higher average selling prices, partially offset by lower volumes. Sales volumes through the first half of 2022 were restricted by raw material supply constraints and unplanned temporary maintenance shutdowns, which limited Lubrizol's production capabilities. The increase in average selling prices was due to escalating prices for raw materials, including oil feedstocks, as well as for utilities, packaging, shipping and freight costs.

Lubrizol's pre-tax earnings increased 60.2% in the second quarter and were relatively unchanged in the first six months of 2022 compared to 2021. Earnings in the second quarter of 2021 included property losses, asset impairment charges and containment and response costs of approximately \$160 million in connection with a fire at its Chemtool facility in Rockton, Illinois in June 2021. Earnings in 2021 were also negatively impacted by the weather-related temporary shut-down of Additives facilities in the U.S. in the first quarter, which resulted in lost sales and various incremental and non-recurring manufacturing and other operating costs. Earnings in 2022 included a comparative increase in insurance recoveries in connection with fires at facilities in 2021 and 2020 and were negatively impacted by rising raw material costs, lower sales volumes, and higher expenses from the unplanned temporary shutdowns, partially offset by higher selling prices.

Manufacturing, Service and Retailing (Continued)

Industrial products (Continued)

Marmon's revenues were \$2.8 billion in the second quarter and \$5.4 billion in the first six months of 2022, increases of 10.3% in the second quarter and 17.5% in the first six months compared to 2021. The Transportation, Metal Services, Retail and Electrical groups generated significant revenue increases in the first six months of 2022, primarily attributable to higher volumes and average metals prices. These groups contributed approximately 70% of Marmon's aggregate revenue increase in the first six months.

Marmon's pre-tax earnings decreased 5.8% in the second quarter and increased 14.6% in the first six months of 2022 compared to 2021. Earnings in the second quarter of 2022 included losses of approximately \$90 million in the Rail & Leasing group related to the shutdown of its business in Russia. In the first six months of 2022, the Transportation, Metal Services, Retail, Electrical and Industrial Products groups contributed meaningful increases in earnings, due to a combination of higher sales volumes and margins and ongoing cost management, partially offset by lower earnings from the Rail & Leasing group.

IMC's revenues were \$930 million in the second quarter and \$1.9 billion in the first six months of 2022, increases of 1.7% in the second quarter and 5.0% in the first six months compared to 2021. Revenues in 2022 reflected increased sales in several geographic regions, partially offset by lower revenues in Asia and unfavorable foreign currency translation effects. IMC's pre-tax earnings decreased 9.6% in the second quarter and 1.0% in the first six months of 2022 compared to 2021, as the revenue increases were more than offset by higher raw material costs and unfavorable foreign currency translation effects.

Building products

The building products group includes manufactured and site-built home construction and related lending and financial services (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).

Revenues of the building products group increased \$1.3 billion (20.4%) in the second quarter and \$2.4 billion (19.9%) in the first six months of 2022 and pre-tax earnings increased \$334 million (34.3%) in the second quarter and \$708 million (40.6%) in the first six months of 2022 compared to 2021. Residential home construction in the U.S. continued to be relatively strong throughout the first half of 2022. During the first half of 2022, interest rates in the U.S. increased significantly compared to the previous low-rate environment. The increases in home mortgage interest rates will very likely slow demand for new home construction, which could adversely impact our businesses. We also continue to be negatively affected by persistent supply chain disruptions and significant cost increases for many raw materials and other inputs, including energy, freight and labor.

Clayton Homes' revenues increased 28.1% to \$3.4 billion in the second quarter and 25.0% to \$6.2 billion in the first six months of 2022 compared to 2021. Revenues from home sales increased \$1.2 billion (30.5%) in the first six months of 2022, primarily due to higher average selling prices and increased volume. New home unit sales also increased 9.8% in the first six months of 2022, reflecting an 11.3% increase in higher factory-built manufactured home unit sales and a 3.1% increase in site-built home unit sales. Financial services revenues, which include mortgage origination and services, insurance and interest income from lending activities, increased 4.3% in the first six months of 2022 compared to 2021. Loan balances, net of allowances for credit losses, were approximately \$20.0 billion as of June 30, 2022, an increase of approximately \$1.2 billion from December 31, 2021.

Pre-tax earnings of Clayton Homes increased \$168 million (36.9%) in the second quarter and \$262 million (30.9%) in the first six months of 2022 compared to 2021. Earnings in 2022 reflected higher home sales, gross margins and net interest income and relatively low credit losses.

Aggregate revenues of our other building products businesses were approximately \$4.3 billion in the second quarter and \$8.2 billion in the first six months of 2022, increases of \$555 million (14.9%) in the second quarter and \$1.1 billion (16.3%) in the first six months versus 2021. The increases were primarily due to higher average selling prices driven by higher input and transportation costs, and to a lesser extent, from higher unit volumes and product mix changes.

Pre-tax earnings of our other building products businesses increased \$166 million (32.1%) in the second quarter and \$446 million (49.8%) in the first six months of 2022 compared to 2021. Earnings as a percentage of revenues in the first six months of 2022 increased 3.7 percentage points versus 2021. Year-to-date earnings in 2022 benefitted from an increase in pre-tax gains from a business divestiture and asset sales of \$111 million, primarily in the first quarter. The increase in earnings in 2022 also reflected the impact of severe winter storms in the first quarter of 2021, which reduced sales and produced incremental production and other operating costs in the first half of 2021.

Manufacturing, Service and Retailing (Continued)

Consumer products

The consumer products group includes leisure vehicles (Forest River), several apparel and footwear operations (including Fruit of the Loom, Garan, Fechheimer, H.H. Brown Shoe Group and Brooks Sports) and high-performance batteries (Duracell). This group also includes custom picture framing products (Larson-Juhl) and jewelry products (Richline).

Consumer products group revenues increased approximately \$524 million (13.7%) in the second quarter and \$1.1 billion (15.4%) in the first six months of 2022 compared to 2021, reflecting higher revenues from Forest River and lower revenues from apparel and footwear businesses. Forest River's revenues increased 34.1% in the second quarter and 37.0% in the first six months of 2022 compared to 2021, driven by higher average selling prices and a 5.3% year-to-date increase in unit sales. Forest River experienced exceptional sales growth in recent years, however there are signs of slowing demand which could reverse that trend. Revenues of our apparel and footwear businesses declined \$93 million (7.2%) in the second quarter and \$137 million (5.4%) in the first six months of 2022 compared to 2021, reflecting lower revenues from apparel (15.5% in the second quarter and 10.1% in the first six months), partly offset by higher revenues from footwear. The declines in apparel revenues were driven by lower volumes, as retail customers reduced orders in response to rising inventories.

Pre-tax earnings of our consumer products group declined \$48 million (9.6%) in the second quarter and \$108 million (10.6%) in the first six months of 2022 versus 2021. Pre-tax earnings as a percentage of revenues decreased 3.1 percentage points in the first six months of 2022 compared to 2021. The declines in earnings in 2022 reflected lower aggregate earnings from the apparel and footwear businesses, partially offset by higher earnings from Forest River. Forest River's earnings increases were primarily due to the increases in sales, partly offset by higher materials costs. Apparel and footwear earnings declined about 50% in the second quarter and in the first half of 2022 compared to 2021. Our apparel businesses were negatively impacted by lower sales volumes, reduced manufacturing efficiencies and higher input costs, including raw material, freight, labor and other operating costs. While supply chain restrictions eased somewhat in the second quarter of 2022, we expect that the operating earnings of these businesses for the remainder of 2022 will be likely lower, due to slowing demand and high costs.

Service and retailing

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

	Second Quarter					First Six	ths	
		2022		2021		2022		2021
Revenues								
Service	\$	4,737	\$	3,982	\$	9,260	\$	7,587
Retailing		4,880		4,995		9,472		9,348
McLane		13,262		12,295		25,777		23,917
	\$	22,879	\$	21,272	\$	44,509	\$	40,852
Pre-tax earnings								
Service	\$	756	\$	727	\$	1,480	\$	1,317
Retailing		443	459		854			807
McLane		76		84		158		187
	\$	1,275	\$	1,270	\$	2,492	\$	2,311
Pre-tax earnings as a percentage of revenues								
Service	16.0%		6 18.3%		6 16.0%			17.4%
Retailing	9.1%		9.2%		9.0%			8.6%
McLane	0.6%		0.7%		6 0.6%			0.8%

Service

Our service group consists of several businesses. The largest of these businesses are NetJets and FlightSafety (aviation services), which offer shared ownership programs for general aviation aircraft and high technology training products and services to operators of aircraft, and TTI, a distributor of electronics components. Our other service businesses franchise and service a network of quick service restaurants (Dairy Queen), lease transportation equipment (XTRA) and furniture (CORT), provide third party logistics services that primarily serve the petroleum and chemical industries (Charter Brokerage), distribute electronic news, multimedia and regulatory filings (Business Wire) and operate a television station in Miami, Florida (WPLG).

Manufacturing, Service and Retailing (Continued)

Service (Continued)

Service group revenues increased \$755 million (19.0%) in the second quarter and \$1.7 billion (22.1%) in the first six months of 2022 compared to 2021. Revenues from TTI increased 16.3% in the second quarter and 22.3% in the first six months of 2022 versus 2021, reflecting strong demand in nearly all significant markets. During the second quarter, we saw signs that growth is beginning to decelerate, in part attributable to higher inventory levels within the supply chain. Revenues from aviation services (NetJets and FlightSafety) increased 22.6% in the second quarter and 23.0% in the first six months of 2022 compared to 2021. The increases reflected year-to-date increases in training hours (29%), customer flight hours (25%) and fuel surcharges to customers due to significant increases in fuel prices, partially offset by the effects from changes in sales mix.

Pre-tax earnings of the service group increased \$29 million (4.0%) in the second quarter and \$163 million (12.4%) in the first six months of 2022 compared to 2021. Pre-tax earnings as a percentage of revenues decreased 1.4 percentage points in the first six months of 2022 compared to 2021. The increases in earnings reflected increases from TTI and CORT and decreases from aviation services. The increases in earnings from TTI were primarily attributable to the increases in sales and improved operating cost leverage. The decreases in earnings from aviation services were attributable to the need to utilize more subcontracted aircraft due to the exceptional increase in customer flight hours, and from higher equipment maintenance and other operating costs, which more than offset the increases in revenues.

Retailing

Our largest retailing business is Berkshire Hathaway Automotive, Inc. ("BHA"), representing 65% of our combined retailing revenue in the first six months of 2022. BHA consists of over 80 auto dealerships that sell new and pre-owned 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. The home furnishings group represented 20% of the combined retailing revenues in the first six months of 2022.

Other retailing businesses include three jewelry retailing 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 retailer of motorcycle accessories based in Germany.

Retailing group revenues decreased \$115 million (2.3%) in the second quarter and increased \$124 million (1.3%) in the first six months of 2022 compared to 2021. BHA's revenues in the second quarter declined 1.0% and increased 3.8% in the first six months of 2022 compared to the same periods in 2021. BHA's revenues from new and used vehicle sales decreased 2.7% in the second quarter and increased 2.8% in the first six months of 2022 compared to 2021. Revenues from service and repair and finance and service contract revenues each increased versus 2021. Revenues from vehicle sales reflected higher average vehicle transaction prices, partly offset by lower unit sales. Unit sales continue to be constrained by low new vehicle production by original equipment manufacturers, attributable to the ongoing global computer chip shortages and other supply chain disruptions. Home furnishings group revenues were relatively unchanged in the second quarter and in the first six months of 2022 compared to 2021, as higher average selling prices were substantially offset by lower transaction volumes.

Retailing group pre-tax earnings decreased \$16 million (3.5%) in the second quarter and increased \$47 million (5.8%) in the first six months of 2022 compared to 2021. BHA's pre-tax earnings increased 17.2% in the second quarter and 21.7% in the first six months of 2022 compared to 2021, primarily due to increases in vehicle gross profit margins and finance and service contract earnings per vehicle sold and from operating cost control efforts. Over the remainder of 2022, BHA's comparative new vehicle gross profit margin rates may decline compared to 2021, as the current environment of elevated margins began during the second half of 2021. Aggregate pre-tax earnings for the remainder of our retailing group decreased \$52 million (20.8%) in the second quarter and \$35 million (8.0%) in the first six months of 2022 compared to 2021, primarily due to declining earnings from the furniture retailers and Pampered Chef.

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 comprised 61% of McLane's consolidated sales in the first six months of 2022, with foodservice representing most of the remainder. A curtailment of purchasing by any of its significant customers could have an adverse impact on McLane's periodic revenues and earnings.

Manufacturing, Service and Retailing (Continued)

McLane Company (Continued)

Revenues increased \$967 million (7.9%) in the second quarter and \$1.9 billion (7.8%) in the first six months of 2022 compared to 2021, reflecting increases in the first six months of 2022 of 3.4% from the grocery business and 16.5% from the foodservice business. Pre-tax earnings decreased \$8 million (9.5%) in the second quarter and \$29 million (15.5%) in the first six months of 2022 compared to 2021, primarily attributable to higher personnel costs, fuel expense and insurance costs, partly offset by increased gross sales margins. The increase in fuel expense was primarily attributable to significant increases in petroleum prices. McLane's grocery and food service operating results continue to be adversely affected by supply chain constraints, including the effects of labor and truck driver shortages and higher inventory costs. We expect the current difficult operating environment to continue for the remainder of 2022.

Investment and Derivative Contract Gains/Losses

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

	Second Quarter				First Six Months				
	2022			2021		2022		2021	
Investment gains (losses)	\$	(66,854)	\$	27,173	\$	(68,589)	\$	32,384	
Derivative contract gains (losses)		(65)		221		(308)		710	
Gains (losses) before income taxes and noncontrolling interests		(66,919)		27,394		(68,897)		33,094	
Income taxes and noncontrolling interests		(13,881)		5,986		(14,279)		6,993	
Net earnings (loss)	\$	(53,038)	\$	21,408	\$	(54,618)	\$	26,101	
Effective income tax rate		21.0%		21.4%		20.8%		20.9%	

Investment gains/losses

Unrealized gains and losses arising from changes in market prices of investments in equity securities are included in our reported earnings, which significantly increases the volatility of our periodic net earnings due to the magnitude of our equity securities portfolio and the inherent volatility of equity securities prices. Unrealized gains and losses also include the effects of changes in foreign currency exchange rates on investments in non-U.S. issuers that are held by our U.S. based subsidiaries. Pre-tax investment gains/losses included net unrealized losses of \$66.9 billion in the second quarter and \$68.5 billion in the first six months of 2022 compared to net unrealized gains of \$27.0 billion in the second quarter and \$31.5 billion in the first six months of 2021 on securities we held at the end of the applicable period. Taxable investment gains/losses on equity securities sold is generally the difference between sales proceeds and the original cost of the securities sold. Sales of equity securities produced taxable gains of \$76 million in the second quarter and taxable losses of \$663 million in the first six months of 2022 compared to taxable gains of \$228 million in the second quarter and \$2.0 billion in the first six months of 2021.

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 investment gains/losses recorded in earnings in any given period has little analytical or predictive value.

Derivative contract gains/losses

Derivative contract gains/losses include the changes in fair value of our few remaining equity index put option contract liabilities, which relate to contracts originated between 2004 and 2008. The gains and losses from the changes in the fair values of these liabilities are recorded in earnings and can be significant due to the volatility of market prices in the related equity securities markets. As of June 30, 2022, the intrinsic value of our remaining equity index put option contracts was \$179 million and our recorded liability at fair value was \$186 million. Our ultimate payment obligations, if any, under these contracts will be determined as of the contract expiration dates based on the intrinsic value as defined in the contracts.

 ${\bf Item~2.~Management's~Discussion~and~Analysis~of~Financial~Condition~and~Results~of~Operations}$

Other

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

	Second Quarter					First Six Months			
	2022			2021	2022			2021	
Equity method earnings	\$	205	\$	141	\$	512	\$	355	
Acquisition accounting expenses		(162)		(183)		(323)		(363)	
Corporate interest expense, before foreign currency effects		(67)		(77)		(137)		(157)	
Foreign currency exchange rate gains (losses) on Berkshire									
and BHFC non-U.S. Dollar senior notes		1,061		(45)		1,583		480	
Other		80		(5)		159		(11)	
	\$	1,117	\$	(169)	\$	1,794	\$	304	

After-tax equity method earnings include our proportionate share of earnings attributable to our investments in Kraft Heinz, Pilot, Berkadia, Electric Transmission of Texas and Iroquois Gas Transmission Systems. Equity method earnings increased \$157 million in the first six months of 2022 versus 2021, primarily due to higher earnings from Kraft Heinz and Pilot.

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 of intangible assets recorded in connection with those business acquisitions.

Foreign currency exchange rate gains and losses pertain to Berkshire's Euro and Japanese Yen denominated debt and BHFC's Euro and Great Britain Pound denominated debt. Changes in foreign currency exchange rates produce unrealized gains and losses from the periodic revaluation of these liabilities into U.S. Dollars. In 2022, we recorded significant foreign currency exchange rate gains on these debt issues, due to strengthening of the U.S. Dollar, which reduced the U.S Dollar carrying value of the debt. These gains were largely offset by losses included in investment gains/losses, pertaining to non-U.S. Dollar denominated investments held by our U.S. based subsidiaries. The gains and losses recorded in any given period can be significant due to the magnitude of the borrowings and the inherent volatility in foreign currency exchange rates. Other earnings/loss consist primarily of Berkshire parent company investment income and corporate expenses, other intercompany interest income where the interest expense is included in earnings of the operating businesses and unallocated income taxes.

Financial Condition

Our Consolidated Balance Sheet continues to reflect very significant liquidity and a very strong capital base. Consolidated shareholders' equity attributable to Berkshire shareholders at June 30, 2022 was \$461.2 billion, a decrease of \$45.0 billion since December 31, 2021. Net loss attributable to Berkshire shareholders was \$38.3 billion in the first six months of 2022, which included after-tax losses on our investments of \$54.4 billion, substantially all of which occurred in the second quarter. Investment gains and losses from changes in the market prices of our investments in equity securities will produce significant volatility in our earnings.

Berkshire's common stock repurchase program, as amended, permits 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 does not specify a maximum number of shares to be repurchased and does not require any specified repurchase amount. 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 \$30 billion. Financial strength and redundant liquidity will always be of paramount importance at Berkshire. Berkshire paid \$4.2 billion in the first six months of 2022 to repurchase shares of its Class A and B common stock.

At June 30, 2022, our insurance and other businesses held cash, cash equivalents and U.S. Treasury Bills of \$101.3 billion, which included \$76.1 billion in U.S. Treasury Bills. Investments in equity and fixed maturity securities (excluding our investment in Kraft Heinz) were \$348.8 billion. During the first six months of 2022, we paid cash of \$57.3 billion to acquire equities securities and we received proceeds of \$12.0 billion from sales of equity securities.

Our consolidated borrowings at June 30, 2022 were \$119.1 billion, of which over 95% were by the Berkshire parent company, BHFC, BNSF and BHE and its subsidiaries. In the first six months of 2022, Berkshire and certain of its subsidiaries issued term debt of approximately \$10.2 billion in the aggregate.

Financial Condition (Continued)

Berkshire parent company outstanding debt at June 30, 2022 was \$20.1 billion, a decrease of \$1.3 billion since December 31, 2021. In January 2022, Berkshire repaid \$600 million of maturing senior notes and issued ¥128.5 billion (approximately \$1.1 billion) of senior notes with maturity dates ranging from 2027 to 2052 and a weighted average interest rate of 0.5%. Berkshire's borrowings decreased \$1.8 billion in the first six months of 2022 from changes in foreign currency exchange rates on its non-U.S. Dollar denominated debt. Berkshire parent company debt maturities over the next twelve months approximate \$4.3 billion, all of which is in the first six months of 2023.

Berkshire's insurance and other subsidiary outstanding borrowings were \$22.5 billion at June 30, 2022, which included senior note borrowings of BHFC, a wholly-owned financing subsidiary, of approximately \$17.9 billion. BHFC's borrowings are used to fund a portion of loans originated and acquired by Clayton Homes and equipment held for lease by our railcar leasing business. In March 2022, BHFC issued \$4.5 billion of senior notes with maturity dates ranging from 2027 to 2052 and a weighted average interest rate of 3.4% and issued €1.25 billion of senior notes maturing in 2030 and 2034 with a weighted average interest rate of 1.8%. Aggregate maturities of BHFC debt in the first six months of 2022 were \$775 million. Berkshire guarantees BHFC's senior notes for the full and timely payment of principal and interest.

BNSF's outstanding debt was \$23.4 billion as of June 30, 2022, an increase of \$157 million from December 31, 2021. In June 2022, BNSF issued \$1.0 billion of 4.45% debentures due in 2053. During the first six months of 2022, BNSF repaid \$800 million of term debt. Outstanding borrowings of BHE and its subsidiaries were \$53.1 billion at June 30, 2022, an increase of \$1.3 billion from December 31, 2021. In April 2022, BHE issued \$1.0 billion of 4.6% senior notes due in 2053, and during the first six months of 2022, subsidiaries issued approximately \$1.3 billion of term debt with a weighted average interest rate of 3.5% and maturity dates ranging from 2024 to 2052. Aggregate debt maturities for BHE and BNSF over the next twelve months approximate \$2.6 billion. 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.

In the first six months of 2022, our diverse group of businesses generated net operating cash flows of approximately \$15.4 billion. Our consolidated capital expenditures for property, plant and equipment and equipment held for lease were \$6.8 billion in the first six months of 2022, which included capital expenditures by our railroad, utilities and energy businesses (BNSF and BHE) of \$4.8 billion. 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. We forecast additional capital expenditures of approximately \$6.6 billion for BHE and BNSF over the remainder of 2022.

Contractual Obligations

We are party to other contracts associated with ongoing business activities, which will result in cash payments to counterparties in future periods. Certain obligations are included in our Consolidated Balance Sheets, such as operating lease liabilities and shared aircraft repurchase liabilities of NetJets.

We are also obligated to pay claims arising from property and casualty insurance companies. Such liabilities, including amounts from retroactive reinsurance, were \$125.8 billion at June 30, 2022. However, the timing and amount of the payments under insurance and reinsurance contracts are contingent upon the outcome of future events. Actual payments will likely vary, perhaps materially, from any forecasted payments, as well as from the liabilities currently recorded in our Consolidated Balance Sheet. We anticipate that these payments will be funded by operating cash flows.

Other obligations pertaining to the acquisition of goods or services in the future, such as certain purchase obligations, are not currently reflected in the Consolidated Financial Statements and will be recognized in future periods as the goods are delivered or services are provided. As of June 30, 2022, the largest categories of our long-term contractual obligations primarily related to fuel, capacity, transmission and maintenance contracts and capital expenditure commitments of BHE and BNSF and aircraft purchase commitments of NetJets.

On March 21, 2022, we agreed to acquire all of the outstanding shares of Alleghany Corporation ("Alleghany") common stock for cash consideration of approximately \$11.6 billion, subject to Alleghany shareholder approval and receipt of various regulatory approvals. We currently anticipate this acquisition will close in the fourth quarter of 2022. We also have an agreement to acquire an additional 41.4% of Pilot in 2023 and agreements to acquire certain non-controlling interests of consolidated subsidiaries, which are described in Note 26 to the Consolidated Financial Statements included in Item 8 of Berkshire's Annual Report on Form 10-K for the year ended December 31, 2021.

Except as otherwise disclosed in this Quarterly Report, our contractual obligations as of June 30, 2022 were, in the aggregate, not materially different from those disclosed in "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, 2021.

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 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, 2021.

Our Consolidated Balance Sheet as of June 30, 2022 includes estimated liabilities of \$125.8 billion for unpaid losses and loss adjustment expenses from property and casualty insurance and reinsurance contracts. Due to the inherent uncertainties in the processes of establishing these liabilities, the actual ultimate claim amounts will likely differ from the currently recorded amounts. A very small percentage change in estimates of this magnitude can 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, 2022 included goodwill of acquired businesses of \$73.6 billion and indefinite-lived intangible assets of \$18.4 billion. We evaluate these assets for impairment at least annually and we conducted our most recent annual review during the fourth quarter of 2021. In connection with that annual goodwill impairment review, the estimated fair values of five reporting units did not exceed our carrying values by at least 20%. The most significant of these reporting units was Precision Castparts Corp. ("PCC"). The estimated fair value of PCC was approximately \$34.5 billion, exceeding our carrying value of approximately \$31.1 billion by 10.7%. Our carrying value of PCC included goodwill of approximately \$7.5 billion. For the four other reporting units, our aggregate estimated fair value was approximately \$2.5 billion, which exceeded our aggregate carrying value of approximately \$2.3 billion by 9.2%. Our carrying value of these units included goodwill of approximately \$1.2 billion.

Goodwill and indefinite-lived intangible asset impairment reviews include determining the estimated fair values of our reporting units and assets. The key assumptions and inputs used in such determinations may include forecasting revenues and expenses, cash flows and capital expenditures, as well as an appropriate discount rate and other inputs. Significant judgment by management is required in estimating the fair value of a reporting unit and in performing impairment tests. Due to the inherent subjectivity and uncertainty in forecasting future cash flows and earnings over long periods of time, actual results may vary materially from the forecasts.

As of June 30, 2022, we concluded it is more likely than not that goodwill recorded in our Consolidated Balance Sheet was not impaired. The long-term adverse effects of the COVID-19 pandemic on certain of our reporting units may prove to be worse than we currently anticipate, and we may need to record goodwill or indefinite-lived intangible asset impairment charges in future periods. Making estimates of the fair value of reporting units and judgments on goodwill impairments at this time are and will likely be significantly affected by assumptions on the severity, duration or long-term effects of the pandemic on a reporting unit's business, which we cannot reliably predict. Consequently, any fair value estimates in such instances can be subject to wide variations.

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, or 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.

Forward-Looking Statements (Continued)

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; the frequency and severity of epidemics, pandemics or other outbreaks, including COVID-19, that negatively affect our operating results and restrict our access to borrowed funds through the capital markets at reasonable rates; the adverse impacts from geopolitical events; 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, 2022, 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, 2021.

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, 2021, to which reference is made herein. The risks and uncertainties we describe are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business or operations. Any adverse effect on our business, financial condition or operating results could result in a decline in the value of our securities and the loss of all or part of your investment.

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

Berkshire's common stock repurchase program permits Berkshire to repurchase its Class A and Class B 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. 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 2022 follows.

<u>Period</u>	Total number of shares purchased	Average price paid 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				
Class A common stock	_	\$ _	_	*
Class B common stock	_	\$ _	_	*
May				
Class A common stock	_	\$ _		*
Class B common stock	_	\$ _	_	*
June				
Class A common stock	2,397	\$ 425,870.54	2,397	*
Class B common stock	25,462	\$ 276.75	25,462	*

^{*} 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 \$30 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 6, 2022

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 <u>Section 1350 Certifications</u>
- 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, 2022, formatted in iXBRL (Inline Extensible Business Reporting Language) includes: (i) the Cover Page (ii) the Consolidated Balance Sheets, (iii) the Consolidated Statements of Earnings, (iv) the Consolidated Statements of Comprehensive Income, (v) the Consolidated Statements of Changes in Shareholders' Equity, (vi) the Consolidated Statements of Cash Flows, and (vii) the Notes to Consolidated Financial Statements, tagged in summary and detail.
- 104 Cover Page Interactive Data File (formatted as iXBRL and contained in Exhibit 101)

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, 2022

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 6, 2022

/s/ WARREN E. BUFFETT
Chairman—Principal Executive Officer

Quarter ended June 30, 2022

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 6, 2022

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

Section 1350 Certifications

Quarter ended June 30, 2022

- 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, 2022 (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 6, 2022

/s/ WARREN E. BUFFETT

Warren E. Buffett Chairman and Chief Executive Officer

Section 1350 Certifications

Quarter ended June 30, 2022

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, 2022 (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 6, 2022

/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, 2022 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 that had no reportable events occurring at those locations during the three months ended June 30, 2022 are not included in the information below. 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, 2022.

		N	Iine Safety	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 oposed of MSHA Mining essments Related		Instituted During Period	Resolved During Period	
Coal:											
Bridger (surface)	_	_	_	_	_	\$ —	_	_	_	_	
Bridger (underground)	_	_	_	_	_	_	_	1	1	1	
Wyodak Coal Crushing Facility	_	_	_	_	_	_	_	_	_	_	
Clay, shale and limestone:											
Malvern	_	_	_	_	_	_	_	_	_	_	
Jonesboro	_	_	_	_	_	_	_		_	_	
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.
- ⁽²⁾ For alleged failures to totally abate the subject matter of a Mine Safety Act Section 104(a) citation within the period specified in the citation.
- For alleged unwarrantable failures (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.
- includes one labor-related complaint under Subpart E 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.