



# EMPIRE

FINANCIAL RESEARCH

## AN ANALYSIS OF BERKSHIRE HATHAWAY

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# OVERVIEW

- Berkshire Hathaway has everything we look for in a stock: it's safe, cheap, and growing at a healthy rate
  - Safe: Berkshire's huge hoard of liquid assets, the quality and diversity of its businesses, the fact that much of its earnings aren't tied to the economic cycle, and the conservative way in which it's managed all protect Berkshire's intrinsic value, while the share repurchase program provides downside protection to the stock
  - Cheap: after the recent pullback, the stock is now 21% below intrinsic value (without giving any credit to immense optionality), with 45% upside over the next year
  - Growing: intrinsic value is growing at roughly 8% annually

# THE BASICS

- Stock price (7/6/22): \$413,000 (\$276 for B shares)
- Shares outstanding: 1.47 million
- Market cap: \$607 billion
- Total assets, equity, revenue and float (Q1 '22): \$970B, \$517B, \$282B and \$148B, respectively
- Book value per share: \$352,000
- P/B: 1.17x
- Berkshire Hathaway today is the 11<sup>th</sup> largest company in the world (and 6<sup>th</sup> largest in the U.S.) by revenues

# HISTORY

- Berkshire Hathaway today does not resemble the company that Buffett bought into during the 1960s
- It was a leading New England-based textile company, with investment appeal as a classic Ben Graham-style "net-net"
- Buffett took control of Berkshire on May 10, 1965
- At that time, the company had a market value of about \$18 million and shareholder's equity of about \$22 million

# THE BERKSHIRE HATHAWAY EMPIRE TODAY

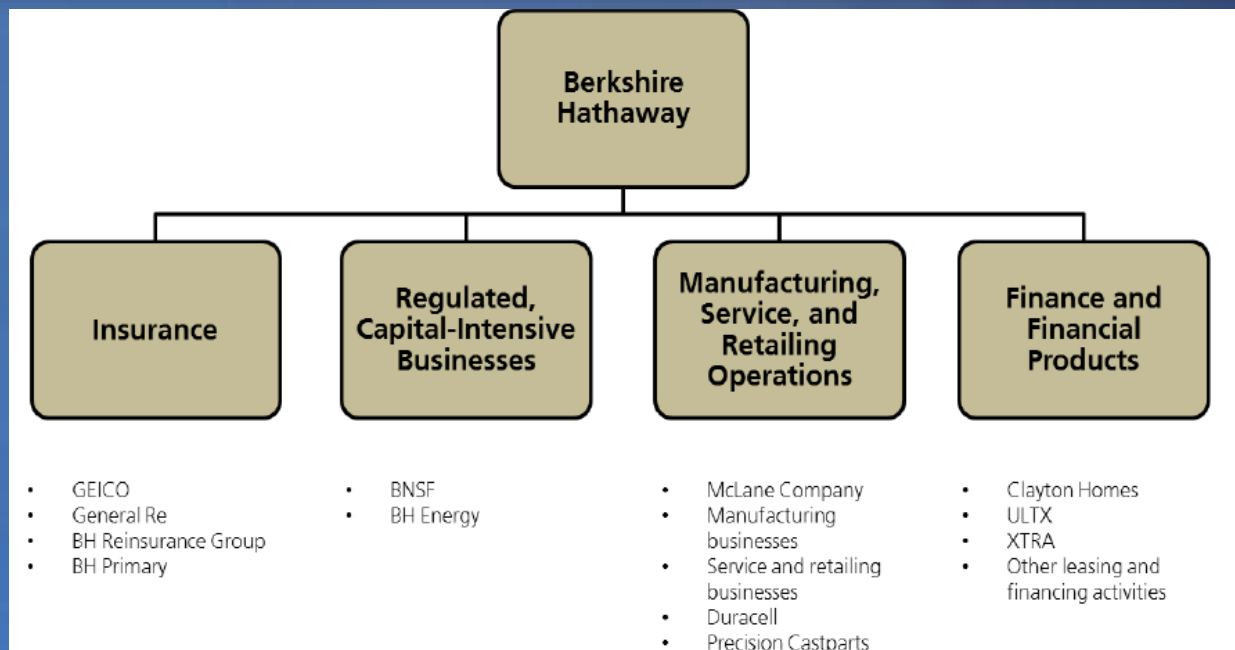


## Largest Stakes in Public Companies (\$B)

Company	Shares (M)	Price	Value (\$B)
Apple	911.3	\$142.27	\$129.7
Bank of America	1,032.9	\$30.73	\$31.7
Coca-Cola	400.0	\$63.35	\$25.3
Chevron	159.2	\$139.62	\$22.2
American Express	151.6	\$138.52	\$21.0
Kraft Heinz	325.6	\$38.03	\$12.4
Occidental Petroleum	163.4	\$59.13	\$9.7
BYD	225.0	\$40.10	\$9.0
Moody's	24.7	\$282.81	\$7.0
U.S. Bancorp	144.0	\$46.07	\$6.6
HP	121.0	\$30.89	\$3.7
Bank of NY Mellon	74.3	\$41.32	\$3.1
DaVita	36.1	\$79.62	\$2.9
Kroger	58.0	\$47.31	\$2.7
Citigroup	55.2	\$45.86	\$2.5
Others			\$31.3
<b>TOTAL</b>			<b>\$320.9</b>

Notes: Stock prices as of 7/6/22.

# THE BERKSHIRE HATHAWAY EMPIRE TODAY (2)



Source: UBS analyst report, 3/28/16.

DESPITE BEING VERY CONSERVATIVELY POSITIONED, BERKSHIRE HAS MATCHED THE S&P 500 DURING THE LONG BULL MARKET THAT BEGAN IN MARCH 2009





## BERKSHIRE UNDERPERFORMED IN THE FIRST 11 MONTHS AFTER THE PANDEMIC CRASH LOW, AS GROWTH STOCKS LIKE ARKK SOARED

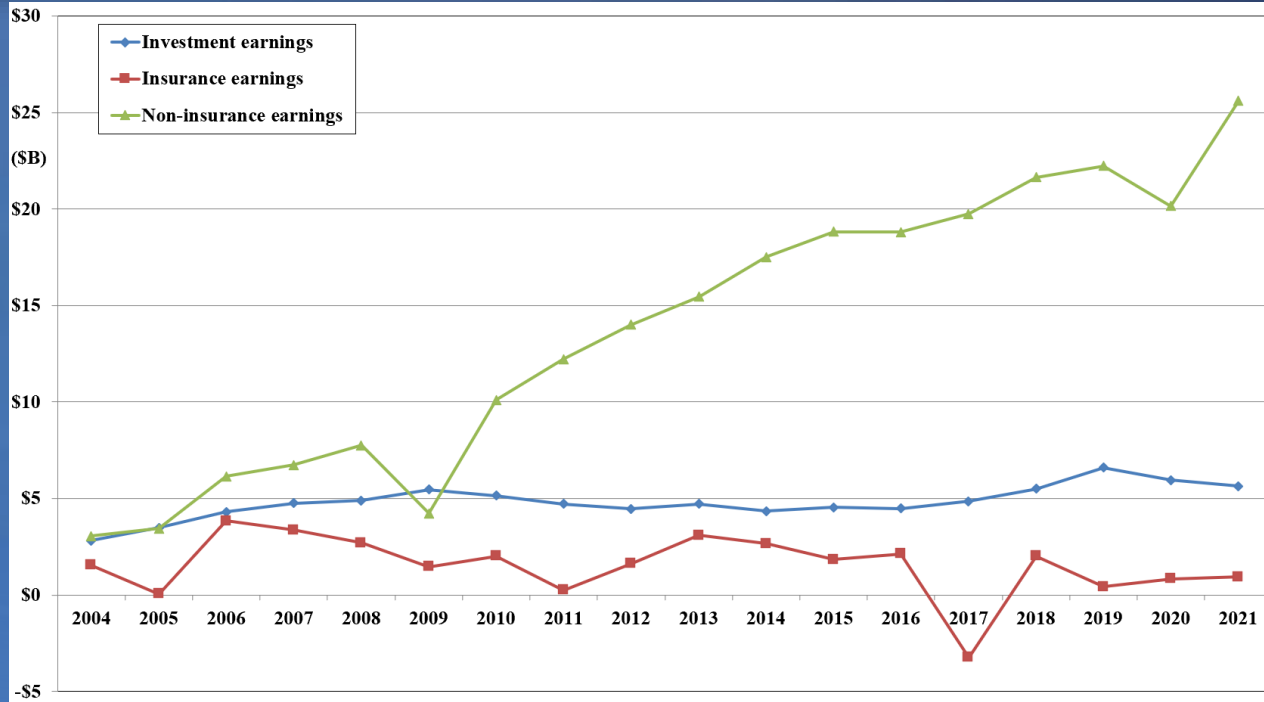




## AS THE GROWTH STOCK BUBBLE HAS BURST, BERKSHIRE HAS DRAMATICALLY OUTPERFORMED IN THE PAST 17 MONTHS

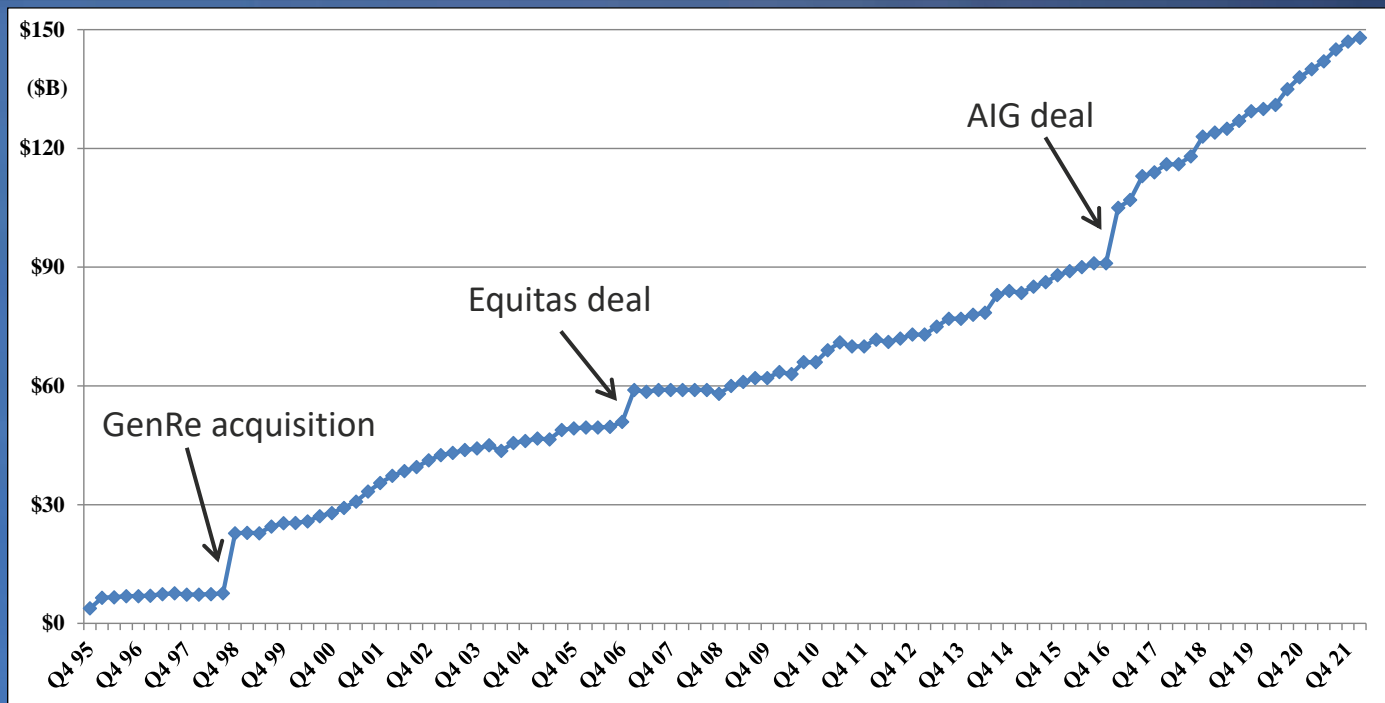


# BERKSHIRE'S NON-INSURANCE EARNINGS HAVE SOARED OVER TIME



Note: Insurance losses in 2017 were primarily due to “several significant catastrophe loss events occurring during the year including hurricanes Harvey, Irma and Maria, an earthquake in Mexico, a cyclone in Australia and wildfires in California” and an increase in “ultimate claim liability estimates related to the...aggregate excess-of-loss retroactive reinsurance agreement with AIG.”

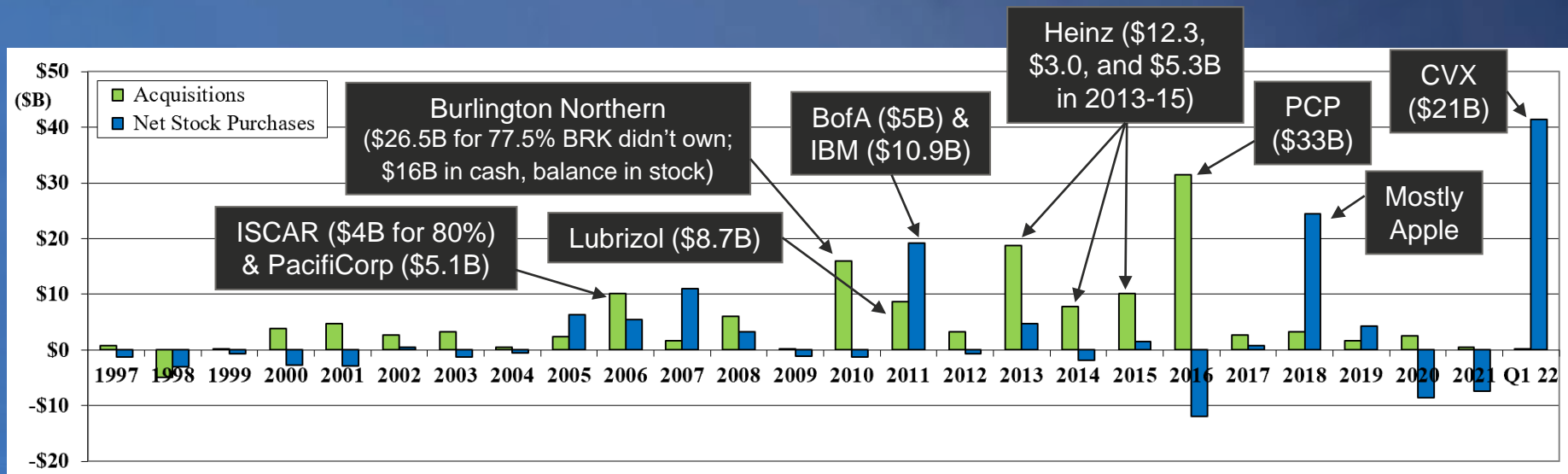
# BERKSHIRE'S FLOAT HAS GROWN ENORMOUSLY



# BERKSHIRE'S Q1 2022 EARNINGS WERE STRONG

- Net income of operating businesses (excluding insurance and investment income) rose 15.4%
- Insurance income declined from \$764 million to \$47 million, due mainly to higher expenses at GEICO thanks to a spike in used car prices and repair costs (spare parts)
- Purchase of equity securities soared to an all-time high of \$51 billion (\$41 billion net), led by a \$21 billion purchase of Chevron stock
- This led to a decline in cash and short-term investments during the quarter from \$147 billion to \$106 billion
- Operating cash flow declined from \$9.3 billion to \$6.8 billion
- Share repurchases of \$3.2 billion; share count down 3.8% year-over-year
- Float rose \$1 billion YTD to \$148 billion

# BUFFETT'S STOCK PURCHASES IN Q1 WERE UNPRECEDENTED



# VALUING BERKSHIRE

"Over the years we've...attempt[ed] to increase our marketable investments in wonderful businesses, while simultaneously trying to buy similar businesses in their entirety." – 1995 Annual Letter

"In our last two annual reports, we furnished you a table that Charlie and I believe is central to estimating Berkshire's intrinsic value. In the updated version of that table, which follows, we trace our two key components of value. The first column lists our per-share ownership of investments (including cash and equivalents) and the second column shows our per-share earnings from Berkshire's operating businesses before taxes and purchase-accounting adjustments, but after all interest and corporate expenses. The second column excludes all dividends, interest and capital gains that we realized from the investments presented in the first column." – 1997 Annual Letter

<u>Year</u>	<u>Investments Per Share</u>	<u>Pre-tax Earnings Per Share Excluding All Income from Investments</u>
1967	\$ 41	\$ 1.09
1977	372	12.44
1987	3,910	108.14
1997	38,043	717.82

"In effect, the columns show what Berkshire would look like were it split into two parts, with one entity holding our investments and the other operating all of our businesses and bearing all corporate costs." – 1997 Annual Letter

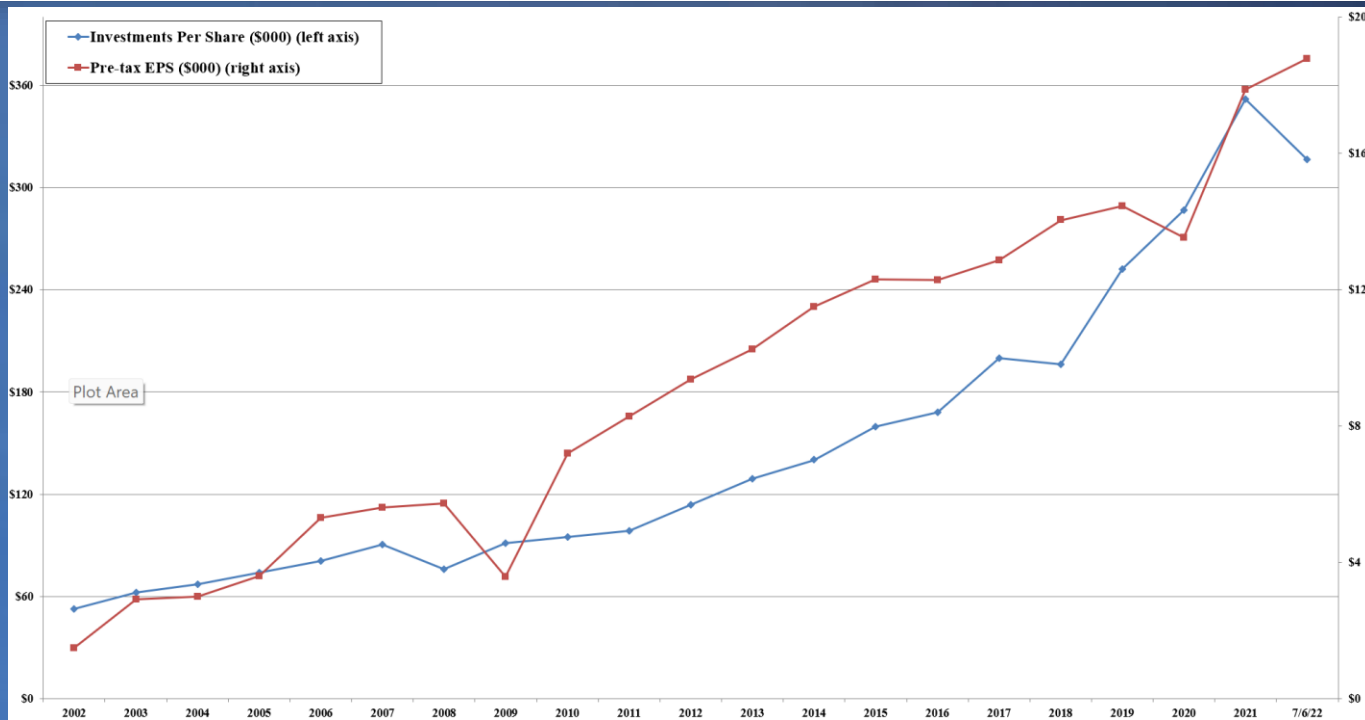
# BUFFETT'S COMMENTS ON BERKSHIRE'S VALUATION LEAD TO AN IMPLIED HISTORICAL MULTIPLIER OF ~12X

<u>Year</u>	<u>Investments Per Share</u>	<b>Pre-tax EPS Excluding All</b>		<b>Year-End Stock Price</b>	<b>Intrinsic Value</b>	<b>Implied Multiplier</b>
		<b>Income From</b>	<b>Investments</b>			
1996	\$28,500	\$421		\$34,100	\$34,100	13
1997	\$38,043	\$718		\$46,000	\$46,000	11
1998	\$47,647	\$474		\$70,000	\$54,000	13
1999	\$47,339	-\$458		\$56,100	\$60,000	

- 1996 Annual Letter: "Today's price/value relationship is both much different from what it was a year ago and, as Charlie and I see it, more appropriate."
- 1997 Annual Letter: "Berkshire's intrinsic value grew at nearly the same pace as book value" (book +34.1%)
- 1998 Annual Letter: "Though Berkshire's intrinsic value grew very substantially in 1998, the gain fell well short of the 48.3% recorded for book value." (Assume a 15-20% increase in intrinsic value.)
- 1999 Annual Letter: "A repurchase of, say, 2% of a company's shares at a 25% discount from per-share intrinsic value...We will not repurchase shares unless we believe Berkshire stock is selling well below intrinsic value, conservatively calculated...Recently, when the A shares fell below \$45,000, we considered making repurchases."



# BERKSHIRE'S EARNINGS AND INVESTMENTS PER SHARE HAVE STEADILY RISEN

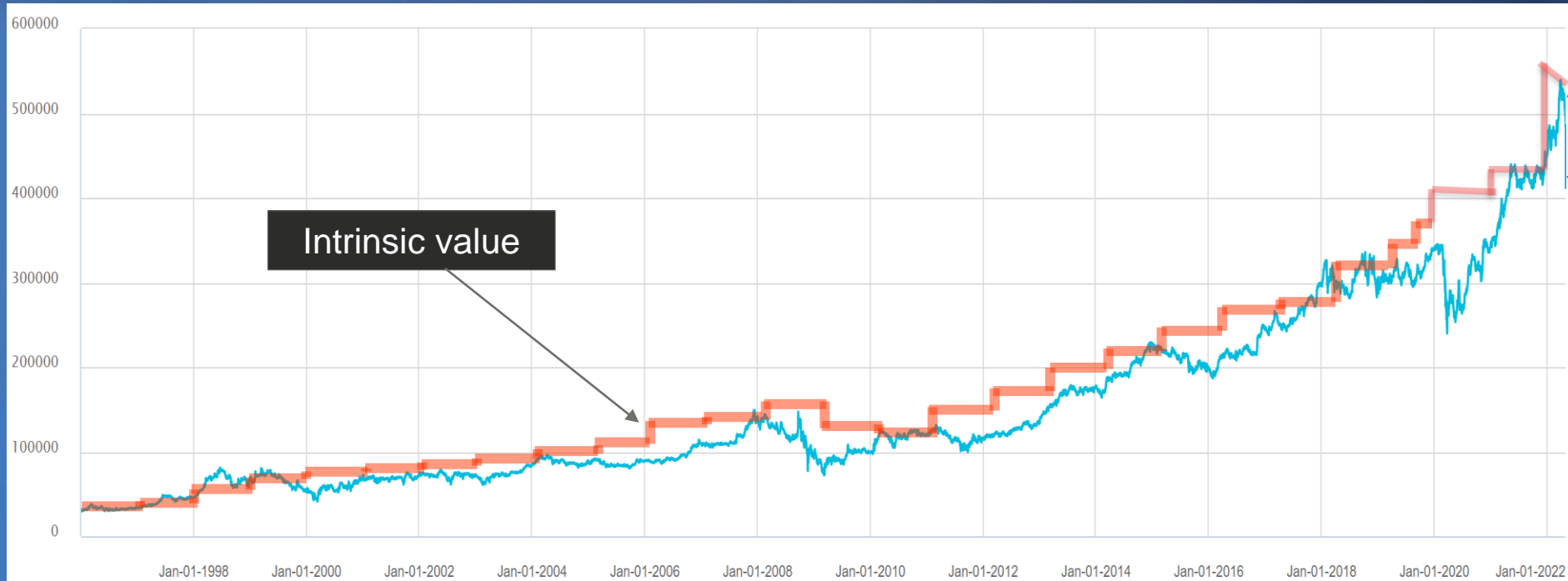


# BERKSHIRE'S INTRINSIC VALUE

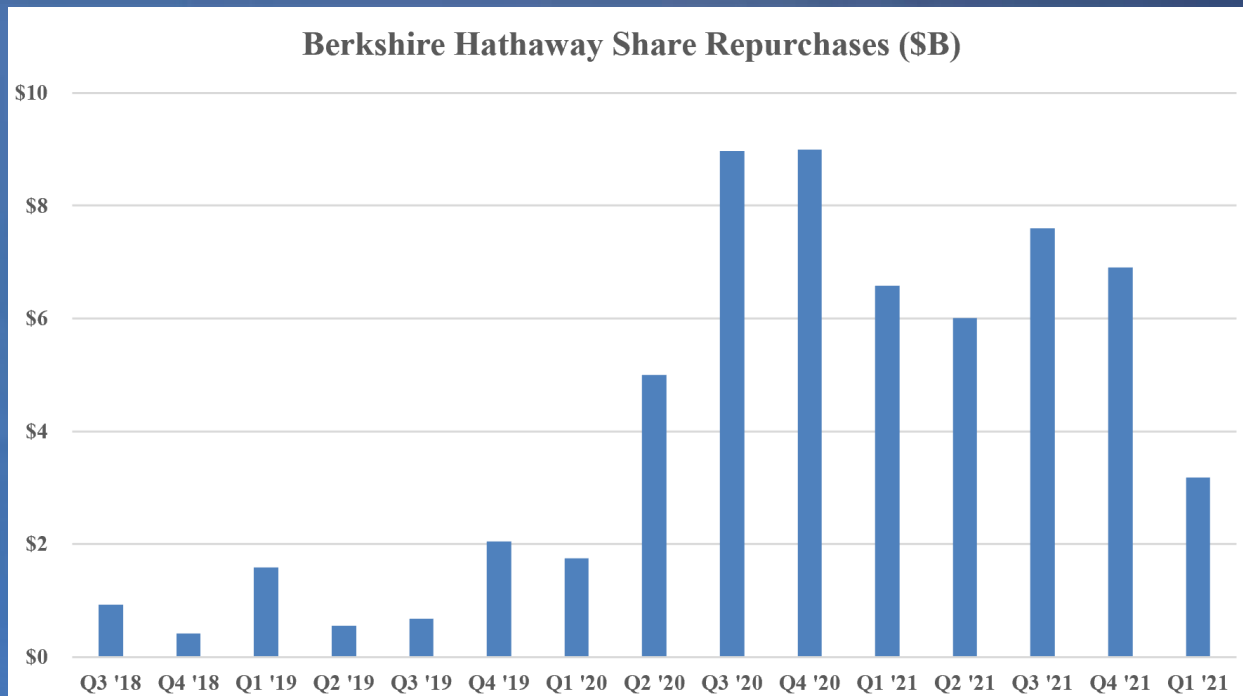
<u>Year End</u>	<u>Cash and Investments Per Share (000)</u>	<u>Pre-tax EPS Excluding All Income From Investments (\$B)</u>	<u>Intrinsic Value Per Share</u>	<u>Subsequent Year Stock Price Range</u>
2002	\$53	\$1.5	\$70,255	\$60,600-\$84,700
2003	\$62	\$2.9	\$97,217	\$81,000-\$95,700
2004	\$67	\$3.0	\$103,003	\$78,800-\$92,000
2005	\$74	\$3.6	\$117,329	\$85,700-\$114,200
2006	\$81	\$5.3	\$144,236	\$107,200-\$151,650
2007	\$90	\$5.6	\$157,543	\$84,000-\$147,000
2008	\$76	\$5.7	\$121,728	\$70,050-\$108,100
2009	\$91	\$3.6	\$119,659	\$97,205-\$128,730
2010	\$95	\$7.2	\$152,330	\$98,952-\$131,463
2011	\$98	\$8.3	\$181,158	\$114,500-\$134,060
2012	\$114	\$9.4	\$207,460	\$139,610-\$178,275
2013	\$129	\$10.3	\$231,814	\$163,038-\$229,374
2014	\$140	\$11.5	\$255,153	\$192,200-\$224,880
2015	\$160	\$12.3	\$282,829	\$189,640-\$249,711
2016	\$168	\$12.3	\$290,940	\$240,280-\$299,360
2017	\$200	\$12.9	\$341,377	\$279,410-\$335,900
2018	\$196	\$14.0	\$350,591	\$287,000-\$340,380
2019	\$252	\$14.5	\$411,383	\$240,000-\$307,638
2020	\$287	\$13.5	\$435,463	\$341,000-\$488,000
2021	\$352	\$17.9	\$548,421	?
7/6/22	\$316	\$18.8	\$522,955	?

1. For EPS, we subtract each year's insurance earnings, which can fluctuate widely, but then add back the average annual earnings from Berkshire's insurance businesses over the past decade of \$1.4 billion.
2. Historically we believe Buffett used a 12x multiple, but given compressed multiples during the downturn, we used 8x in 2008-2010 , 10x from 2011-2016, and 11x since then.

# BERKSHIRE IS TRADING 21% BELOW ITS INTRINSIC VALUE TODAY



# BUFFETT HAS BOUGHT BACK 10% OF BERKSHIRE'S STOCK SINCE THE END OF 2019



# BUFFETT'S REPURCHASES ARE HIGHLY PRICE DEPENDENT



# 12-MONTH INVESTMENT RETURN

- Current intrinsic value: \$523,000/share
- Plus 8% annual growth of intrinsic value of the business
- Plus 3% share repurchases
- Plus ~\$10,000/share cash build over next 12 months
- Equals intrinsic value in one year of ~\$600,000
- 45% above today's price

# CATALYSTS

- Continued earnings growth of operating businesses
- Possibility of meaningful acquisitions
- New stock investments and/or growth of the stock portfolio
- Share repurchases
- Additional cash build



# RISKS: IS BUFFETT IRREPLACEABLE?

- When Buffett is no longer running Berkshire, his job will be split into two parts: Greg Abel as CEO and two Chief Investment Officers, Todd Combs and Ted Weschler
- Nevertheless, Buffett is irreplaceable and it will be a significant loss when he no longer runs Berkshire for a number of reasons:
  - There is no investor with Buffett's experience, wisdom and track record, so his successors' decisions regarding the purchases of both stocks and entire businesses might not be as good
  - Most of the 80+ managers of Berkshire's operating subsidiaries are wealthy and don't need to work, but nevertheless work extremely hard and almost never leave thanks to Buffett's "halo" and superb managerial skills. Will this remain the case under his successors?
  - Buffett's relationships and reputation are unrivaled so he is sometimes offered deals and terms that are not offered to any other investor – and might not be offered to his successors
  - Being offered investment opportunities (especially on terms/prices not available to anyone else) also applies to buying companies outright. There's a high degree of prestige in selling one's business to Buffett (above and beyond the advantages of selling to Berkshire). For example, the owners of Iscar could surely have gotten a higher price had they taken the business public or sold it to an LBO firm

# AREN'T WE CONCERNED ABOUT THE UNCERTAINTY OF BERKSHIRE AFTER BUFFETT?

Answer: Not really, for three primary reasons:

1. Buffett isn't going anywhere anytime soon. We think it's likely that Buffett will be running Berkshire for five more years
  - Buffett turned 91 on Aug. 30<sup>th</sup>, 2021, is in excellent health, and loves his job
  - There are no signs that he is slowing down mentally – in fact, he appears to be getting better with age
  - A life expectancy calculator (<http://calculator.livingto100.com>) shows that Buffett is likely to live to age 97 – and we'd bet on the over
2. The stock is undervalued based on our estimate of intrinsic value, which does not include *any* Buffett premium
  - We simply take investments/share and add the value of the operating businesses, based on a conservative multiple of their normalized earnings
  - The value of the cash and bonds won't change, and Apple, BofA, Chevron, American Express, Coke, Kraft Heinz, Burlington Northern, GEICO, etc. will continue to generate robust earnings even after Buffett is no longer running Berkshire
3. Buffett has built a powerful culture that is likely to endure

# THE REAL BUFFETT RISK

- Buffett is often asked (as are we): "What would happen to the company (and stock) if you got hit by a bus (i.e., die suddenly)?"
  - If it happened tomorrow, our best guess is that the stock would fall 10% (which might give Berkshire the opportunity to buy back a lot of stock)
  - But this isn't likely. Not to be morbid, but most people don't die suddenly from something like an accident or heart attack, but rather die slowly: their bodies (and sometimes minds) gradually deteriorate
  - A far greater risk to Berkshire shareholders is that Buffett begins to lose it mentally and starts making bad investment decisions, but doesn't recognize it (or refuses to acknowledge it because he loves his work so much) and the board won't "take away the keys", perhaps rationalizing that a diminished Buffett is still better than anyone else
  - Buffett is aware of this risk and has instructed Berkshire's board members, both publicly and privately, that their most important job is to "take away the keys" if they see him losing it
  - We trust that both Buffett and the board will act rationally, but also view it as our job to independently observe and evaluate Buffett to make sure we're comfortable that he's still at the top of his game. Today, we think he's never been better

# BERKSHIRE'S CULTURE IS POWERFUL AND UNIQUE: “A SEAMLESS WEB OF DESERVED TRUST”

- Berkshire operates via extreme decentralization: though it is one of the largest businesses in the world with approximately 372,000 employees, only 26 of them are at headquarters in Omaha
  - There is no general counsel or human resources department
- "By the standards of the rest of the world, we overtrust. So far it has worked very well for us. Some would see it as weakness." – Charlie Munger, 5/14
- "A lot of people think if you just had more process and more compliance — checks and double-checks and so forth — you could create a better result in the world. Well, Berkshire has had practically no process. We had hardly any internal auditing until they forced it on us. We just try to operate in a seamless web of deserved trust and be careful whom we trust." – Munger, 5/07
- "We will have a problem of some sort at some time...300,000 people are not all going to behave properly all the time." – Warren Buffett, 5/14
- "Behavioral scientists and psychologists have long contended that 'trust' is, to some degree, one of the most powerful forces within organizations. Mr. Munger and Mr. Buffett argue that with the right basic controls, finding trustworthy managers and giving them an enormous amount of leeway creates more value than if they are forced to constantly look over their shoulders at human resources departments and lawyers monitoring their every move." – NY Times, 5/5/14

# WE THINK BERKSHIRE AFTER BUFFETT WILL BE LIKE APPLE AFTER JOBS

- The most comparable example of a business that, like Berkshire, is closely associated with its legendary founder and CEO is Apple
  - As Steve Jobs' health began to fail, he assumed fewer day-to-day responsibilities, passing them to top lieutenants
  - Jobs resigned as CEO on Aug. 24, 2011 and died exactly six weeks later on Oct. 5, 2011
  - Apple's stock declined less than 1% on the first trading days after both his retirement and death, and is ~1,000% since then as this chart shows:





# OTHER RISKS

- The single biggest risk is that as Berkshire gets larger and Buffett gets older, investors value the stock at a lower and lower multiple of earnings and book value, such that even if intrinsic value continues to grow, the stock goes nowhere for an extended period
- A recession impacts Berkshire's earnings and stock portfolio materially
- A large investment goes awry
- A major super-cat event costs Berkshire many billions

# APPENDIX

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FINANCIAL RESEARCH



# EARNINGS BY YEAR

Earnings before taxes\*

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
<b>Insurance Group:</b>																		
GEICO	970	1,221	1,314	1,113	916	649	1,117	576	680	1,127	1,159	460	462	-310	2,449	1,506	3,428	1,259
General Re	3	-334	526	555	342	477	452	144	355	283	277	132	190	-685				
Berkshire Reinsurance Group	417	-1,069	1,658	1,427	1,222	250	176	-714	304	1,294	606	421	822	-2,963	-1,109	-1,472	-2,700	-930
Berkshire H. Primary Group	161	235	340	279	210	84	268	242	286	385	626	824	657	719	670	383	110	607
Investment Income	<u>2,824</u>	<u>3,480</u>	<u>4,316</u>	<u>4,758</u>	<u>4,896</u>	<u>5,459</u>	<u>5,145</u>	<u>4,725</u>	<u>4,454</u>	<u>4,713</u>	<u>4,357</u>	<u>4,550</u>	<u>4,482</u>	<u>4,855</u>	<u>5,503</u>	<u>6,600</u>	<u>5,949</u>	<u>5,649</u>
<b>Total Insurance Oper. Inc.</b>	<b>4,375</b>	<b>3,533</b>	<b>8,154</b>	<b>8,132</b>	<b>7,586</b>	<b>6,919</b>	<b>7,158</b>	<b>4,973</b>	<b>6,079</b>	<b>7,802</b>	<b>7,025</b>	<b>6,387</b>	<b>6,613</b>	<b>1,616</b>	<b>7,513</b>	<b>7,017</b>	<b>6,787</b>	<b>6,585</b>
<b>Non-Insurance Businesses:</b>																		
Burlington Northern Santa Fe							3,611	4,741	5,377	5,928	6,169	6,775	5,693	6,328	6,863	7,250	6,792	7,861
Berkshire Hathaway Energy	466	485	1,476	1,774	2,963	1,528	1,539	1,659	1,644	1,806	2,711	2,851	2,878	2,499	2,472	2,618	2,479	3,184
McLane Company	228	217	229	232	276	344	369	370	403	486	435	502	431	299	246	288	251	230
Manufacturing				436	733	686	813	992	3,911	4,205	4,811	4,893	7,735	8,324	9,366	9,522	8,010	9,841
Service & Retailing	1,787	1,921	3,297	3,279	3,014	1,028	3,092	3,675	1,272	1,469	1,546	1,720	2,058	2,304	2,696	2,555	2,628	4,481
Finance and financial products	<u>584</u>	<u>822</u>	<u>1,157</u>	<u>1,006</u>	<u>771</u>	<u>653</u>	<u>689</u>	<u>774</u>	<u>1,393</u>	<u>1,564</u>	<u>1,839</u>	<u>2,086</u>						
<b>Total Non-Insur. Oper. Inc.</b>	<b>3,065</b>	<b>3,445</b>	<b>6,159</b>	<b>6,727</b>	<b>7,757</b>	<b>4,239</b>	<b>10,113</b>	<b>12,211</b>	<b>14,000</b>	<b>15,458</b>	<b>17,511</b>	<b>18,827</b>	<b>18,795</b>	<b>19,754</b>	<b>21,643</b>	<b>22,233</b>	<b>20,160</b>	<b>25,597</b>
<b>Total Operating Income</b>	<b>7,440</b>	<b>6,978</b>	<b>14,313</b>	<b>14,859</b>	<b>15,343</b>	<b>11,158</b>	<b>17,271</b>	<b>17,184</b>	<b>20,079</b>	<b>23,260</b>	<b>24,536</b>	<b>25,214</b>	<b>25,408</b>	<b>21,370</b>	<b>29,156</b>	<b>29,250</b>	<b>26,947</b>	<b>32,182</b>

Note: In 2017, Berkshire consolidated General Re and Berkshire Reinsurance Group, so the breakdown is estimated based on the prior year's split.

\* In 2010, Berkshire changed this table from "Earnings before income taxes, noncontrolling interests and equity method earnings" to "Earnings before income taxes".

\*\* Non-insurance businesses were recategorized in 2014, so figures prior to 2012 are not comparable.

# DON'T OVERLOOK MUNGER – HE IS A GENIUS IN HIS OWN RIGHT (1)

## Favorite Mungerisms

- The more hard lessons you can learn vicariously, instead of from your own terrible experiences, the better off you will be...So the game is to keep learning.
- What is elementary, worldly wisdom? Well, the first rule is that you can't really know anything if you just remember isolated facts and try and bang 'em back. If the facts don't hang together on a latticework of theory, you don't have them in a usable form. You've got to have models in your head. And you've got to array your experience – both vicarious and direct – on this latticework of models.
- Most people are trained in one model and try to solve all problems in one way. You know the old saying: To the man with a hammer, the world looks like a nail. This is a dumb way of handling problems.
- Our experience tends to confirm a long-held notion that being prepared, on a few occasions in a lifetime, to act promptly in scale, in doing some simple and logical thing, will often dramatically improve the financial results of that lifetime. If you took our top 15 decisions out, we'd have a pretty average record.
- As Jesse Livermore said, “The big money is not in the buying and selling...but in the waiting.”
- There's always been a market for people who pretend to know the future. Listening to today's forecasters is just as crazy as when the king hired the guy to look at the sheep guts.
- All I want to know is where I'm going to die, so I'll never go there.

# DON'T OVERLOOK MUNGER – HE IS A GENIUS IN HIS OWN RIGHT (2)

## Favorite Mungerisms (continued)

- No wise pilot, no matter how great his talent and experience, fails to use his checklist.
- In my whole life, I have known no wise people (over a broad subject matter area) who didn't read all the time – none, zero.
- We have never given a damn whether any quarter's earnings were up or down. We prefer profits to losses, obviously, but we're not willing to manipulate in any way just to make some quarter look a little better.
- To say accounting for derivatives in America is a sewer is an insult to sewage.
- We think there should be a huge area between what you're willing to do and what you can do without significant risk of suffering criminal penalty or causing losses. We believe you shouldn't go anywhere near that line.
- Our approach has worked for us. Look at the fun we, our managers, and our shareholders are having. More people should copy us. It's not difficult, but it looks difficult because it's unconventional.
- If you rise in life, you have to behave in a certain way. You can go to a strip club if you're a beer-swilling sand shoveler, but if you're the Bishop of Boston, you shouldn't go.
- Spend each day trying to be a little wiser than you were when you woke up. Discharge your duties faithfully and well. Step by step you get ahead, but not necessarily in fast spurts. But you build discipline by preparing for fast spurts. Slug it out one inch at a time, day by day. At the end of the day, if you live long enough, most people get what they deserve.

# DON'T OVERLOOK MUNGER – HE IS A GENIUS IN HIS OWN RIGHT (3)

- To learn more about/from Munger, I highly recommend two books:
  - 1) Poor Charlie's Almanack (I wrote Chapter 3 and provided many of the transcripts)
  - 2) Seeking Wisdom: From Darwin to Munger

