

LESSONS FROM THE TRENCHES:
VALUE INVESTING,
ENTREPRENEURSHIP & LIFE

AN ANALYSIS OF BERKSHIRE HATHAWAY

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(This latest version of this presentation is always posted at: www.tilsonfunds.com/TilsonBRK.pdf)

I CLOSED MY HEDGE FUNDS IN OCTOBER 2017 AND SHORTLY THEREAFTER LAUNCHED KASE LEARNING

- My parents are both educators, I love to teach, and I've done a lot of teaching, writing and mentoring over the years, so it was a natural transition
- There's a large global market of sophisticated investors – both professionals and avid amateurs – who want to learn and become better, many of whom want to start/grow their own investment funds
- There's almost nobody teaching high-level investing and fund entrepreneurship
 - Continuing Legal Education (CLE) and Continuing Medical Education (CME) are major industries, but there's nothing comparable for investors
- My long-time partner at Kase Capital, Glenn Tongue, has rejoined me
- We seek to capture all of the lessons we learned in nearly two decades in the hedge fund trenches, both as investors and entrepreneurs, and impart that knowledge to others so they can stand on our shoulders and achieve even greater success

INVESTING IS A BATTLE

- The reason we call Kase Learning's core program *Lessons from the Trenches* is that investing is a battle
- This long bull market combined with the rise of indexing and the increasing sophistication of supercomputers has made the job of investors and fund managers much harder
- Thus, to succeed you must be better than ever before: do even more in-depth research, do better analysis, be more patient and disciplined, etc.
- Most importantly, you have to get on a steep learning/experience curve and stay on it for a lifetime
- There are only two ways to get experience: learning from veterans (like us) or stumbling around on your own, making mistakes and getting scars on your back
- Which do you prefer?

REAL-WORLD EXPERIENCES & CASE STUDIES

- We are not interested in academic theories; we only teach via case studies rooted in our own real-world experiences
- There are many value investing programs and books that teach the basics: intrinsic value, margin of safety and sustainable competitive advantage; various valuation methodologies; how to do a discounted cash flow, etc.
- But understanding these topics is far from what is truly necessary to successfully navigate today's difficult markets
- We teach dozens of lessons we learned – in many cases, the hard way – over two decades in the trenches: how to find great stocks, avoid value traps, manage a portfolio effectively, short sell, be an activist, control one's emotions, hire the right people at the right time, make a name for yourself, raise money, communicate well with investors, and much more

WE FOCUS ON SUCCESSES *AND* MISTAKES

- During our years at Harvard and Wharton business schools, we read hundreds of case studies and pretty much every one featured a heroic protagonist, facing a difficult issue, but almost every time reaching the right decision and achieving great success
 - We can't recall a single one in which the protagonist made wrong decisions and screwed it all up
- This is not how the world works — everyone makes mistakes and suffers setbacks
- We believe that it's just as important to teach and learn from mistakes, so we honestly share the many we made so that others can avoid them
 - “Only a fool learns from his own mistakes. The wise man learns from the mistakes of others.” – Otto von Bismarck

HOW WE THINK ABOUT INVESTING

- We are value investors, so anyone looking for hot stock tips or advice on how to get rich quick *should not take our programs*
- That said, we are primarily “make money” investors, so we define value broadly
 - We believe that value can be found in many places, even among growth stocks, so we teach case studies that include Netflix, Alphabet, Facebook and SodaStream

WE ALSO TEACH ENTREPRENEURSHIP

- The hedge fund industry is now very large, but at its core it's still an apprenticeship business: young investors learn the business from grizzled veterans
- But what about the 99% of investors who dream of being the next Warren Buffett or Julian Robertson, but aren't lucky enough to land a job at an established firm?
- How are they supposed to learn what they need to know to have a reasonable chance of success?

KASE LEARNING'S THREE CORE PROGRAMS

1. A three-day *Lessons from the Trenches: Value Investing Bootcamp*
 2. A one-day seminar on *How to Launch and Build an Investment Fund*
 3. A one-day *Advanced Seminar on Short Selling*
- They can be taken individually or in any combination, though most choose to take all three
 - We teach them in person over five 12-hour days (3+1+1) and also via live webinars: 15 2½-hour modules (9 for the bootcamp and 3 for each seminar) that we teach live every day from 7:00-9:30am EST
 - Our next in-person seminar is in NYC the week of September 24-28
 - Our next webinars are *How to Launch and Build an Investment Fund* (Sept. 14, 17 and 18) and an *Advanced Seminar on Short Selling* (Sept. 19-21); then, we're teaching all three programs via webinar from Oct. 29-Nov. 16

KASE LEARNING'S CONFERENCE ON SHORT SELLING ON DEC. 3

- This long bull market has inflicted absolute carnage on short books, and even seasoned veterans are throwing in the towel
- This capitulation, however, combined with the increasing level of overvaluation, complacency, hype and even fraud in our markets, spells opportunity for courageous short sellers
- On May 3rd in New York City, Kase Learning hosted the first-ever conference dedicated entirely to short selling, which featured 22 of the world's top practitioners, including David Einhorn and Carson Block, who shared their wisdom, lessons learned, and best, actionable short ideas
- The conference was such a success that we're hosting another one in NYC on Monday, December 3
- Contact Kase Learning for an early-bird discount

TESTIMONIALS

- “The greatest teacher of investing was Benjamin Graham. He was followed by Warren Buffett and Charlie Munger. Believe me, the third person is Whitney Tilson. He’s a natural teacher.” – Chris Stavrou, Stavrou Partners (watch the video [here](#))
- “It was a wonderful, almost life-changing experience. In a nutshell, it felt like an intensive infusion of wisdom and practical advice. I also really enjoyed meeting the people in the group who were, without exception, intelligent, hard-working, open-minded and friendly.” – Gabriel Grego, Quintessential Capital Management LLC
- “I would absolutely recommend this seminar to anyone aspiring to run their own investment management business. What is taught in this seminar is pure gold. It’s not taught anywhere else and there aren’t that many people in the world who really understand what it takes to raise a billion-dollar fund. I think that this is an incredible product. It’s not really a proxy for business school or Columbia’s value investing program. It’s more advanced and for someone farther ahead in their career. There are so many start-up, emerging managers who have no idea how to raise money and where to start.”

TESTIMONIALS (2)

- “As a young analyst trying to get ahead, this was the shot in the arm I needed. I know the hedge fund world has become increasingly difficult and competitive, so I’ve been looking for any leg up I could find – and the seminar delivered, far surpassing my expectations. I was blown away by the one-on-one, personalized attention and can’t imagine a better way to learn than from Whitney’s case-based format. I left the seminar a better investor, entrepreneur and, unexpectedly, better person. Highly recommended!” – Jeremy Lichtman, SevenSai Capital
- “At the beginning of Whitney’s course, I didn’t know what to expect and had little idea of how to set up and market my business, but after only a few days it’s not an understatement that the seminar will make me millions of dollars and save me a great deal of trouble. Whitney laid out everything he did right in launching and growing his fund for more than a decade and then, perhaps more importantly, very honestly detailed what he did wrong. Through his connections, we also met with investors at the very top of the industry who were very generous with their time and open to all questions. Lastly, I now have 12 friends who are very bright and at a similar point in their careers who I can bounce ideas off of, a clear plan for how to market and grow the business (it’s encouraging when you hear Bill Ackman tell you he likes your plan), and most importantly I know what pitfalls to avoid.” – Angelo Martorell, Martorell Capital Partners

ARTICLES BY/ABOUT KASE LEARNING

- *So You Want to Be a Hedge Fund Star?*, Barron's, 5/11/18
 - www.barrons.com/articles/so-you-want-to-be-a-hedge-fund-star-1526069114
- *Want to Run a High-Flying Hedge Fund? Don't Be a Cheapskate*, WSJ, 6/26/18
 - www.wsj.com/articles/want-to-run-a-high-flying-hedge-fund-dont-be-a-cheapskate-1530021600
- *The Last Days of Whitney Tilson's Kase Capital*, Institutional Investor, 3/20/18
 - www.institutionalinvestor.com/article/b17f19gwp3595r/the-last-days-of-whitney-tilson's-kase-capital
- *Whitney Tilson On The Rise And Fall Of Kase Capital*, Forbes, 5/1/18
 - www.forbes.com/sites/kevinharris/2018/05/01/whitney-tilson-on-the-rise-and-fall-of-kase-capital
- *How My Success Led to My Fall*, Yahoo Finance, 5/23/18
 - <https://finance.yahoo.com/news/success-led-fall-174512177.html>
- *The Launch Of Kase Learning And Running A Hedge Fund*, Seeking Alpha interview, 5/26/18
 - <https://seekingalpha.com/article/4177128-sa-interview-whitney-tilson-launch-kase-learning-running-hedge-fund>

FURTHER INFORMATION

- Further information is at www.kaselearning.com or call (212) 265-4510
- Email me at WTilson@kaselearning.com if you would like to be added to my investing email list and/or have questions or comments
- Follow Kase Learning on:



AN ANALYSIS OF BERKSHIRE HATHAWAY



KASE LEARNING

THE BASICS

- Stock price (9/12/18): \$322,910 (\$215 for B shares)
- Shares outstanding: 1.64 million
- Market cap: \$530 billion
- Total assets, equity, revenue and float (Q2 '18): \$712B, \$362B, \$241B and \$116B, respectively
- Book value per share (Q2 '18): \$217,677
- P/B: 1.48x
- Berkshire Hathaway today is the 9th largest company in the world (and 3rd largest in the U.S.) by revenues

At today's price, we're not pounding the table on the stock, but if you want to sleep well at night and have a very good chance of beating the S&P over time, especially if the market does poorly, then Berkshire is a great addition to a conservative portfolio.

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	Price	Value
Apple	241.7	\$183.83	\$44,434
Wells Fargo	482.5	\$52.41	\$25,290
Bank of America	700.0	\$29.30	\$20,510
Kraft Heinz	325.4	\$58.01	\$18,879
Coca-Cola	400.0	\$42.36	\$16,944
American Express	151.6	\$98.35	\$14,911
Phillips 66	74.6	\$115.61	\$8,623
U.S. Bancorp	103.9	\$50.34	\$5,228
Moody's	24.7	\$166.31	\$4,103
Bank of NY	53.3	\$54.49	\$2,905
Delta Airlines	53.1	\$52.34	\$2,780
Goldman Sachs	11.4	\$234.94	\$2,676
Southwest Airlines	47.7	\$52.78	\$2,515
Charter Comm	6.8	\$276.07	\$1,874
General Motors	44.5	\$36.71	\$1,635
BYD	225.0	\$6.45	\$1,451
Others			\$24,294
TOTAL			\$199,052

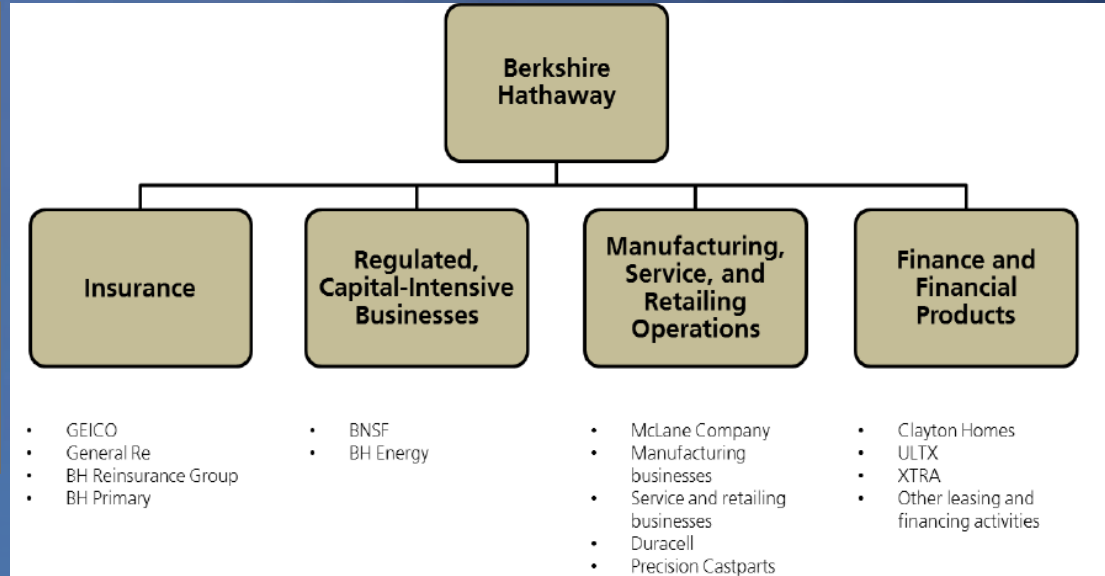
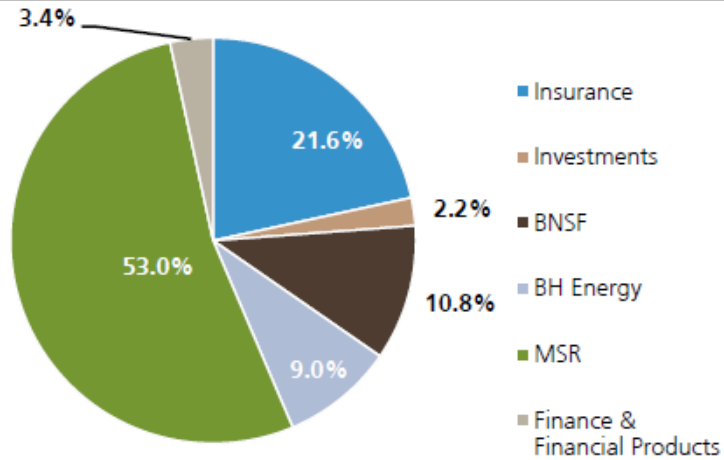
Notes: Share count as of 12/31/17 13-F plus 75M AAPL; Stock prices as of 5/4/18.



KASE LEARNING

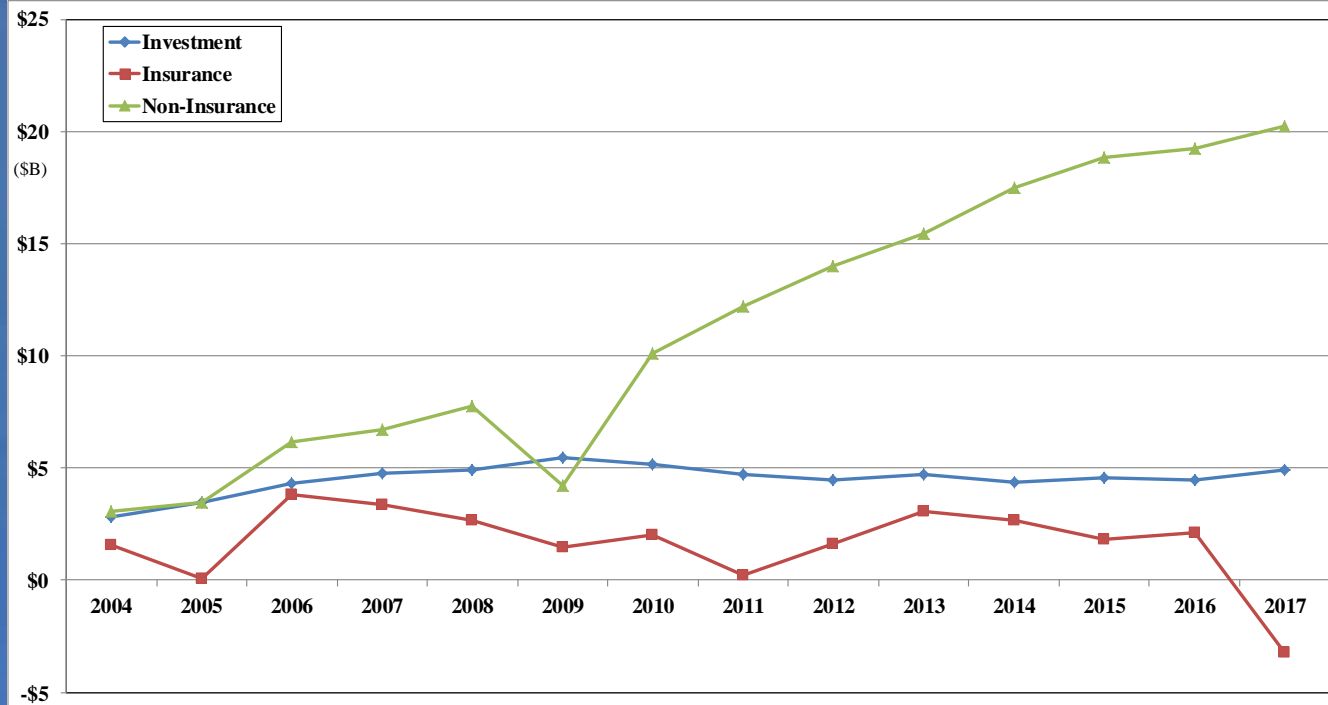
THE BERKSHIRE HATHAWAY EMPIRE TODAY (2)

Revenues (2015)



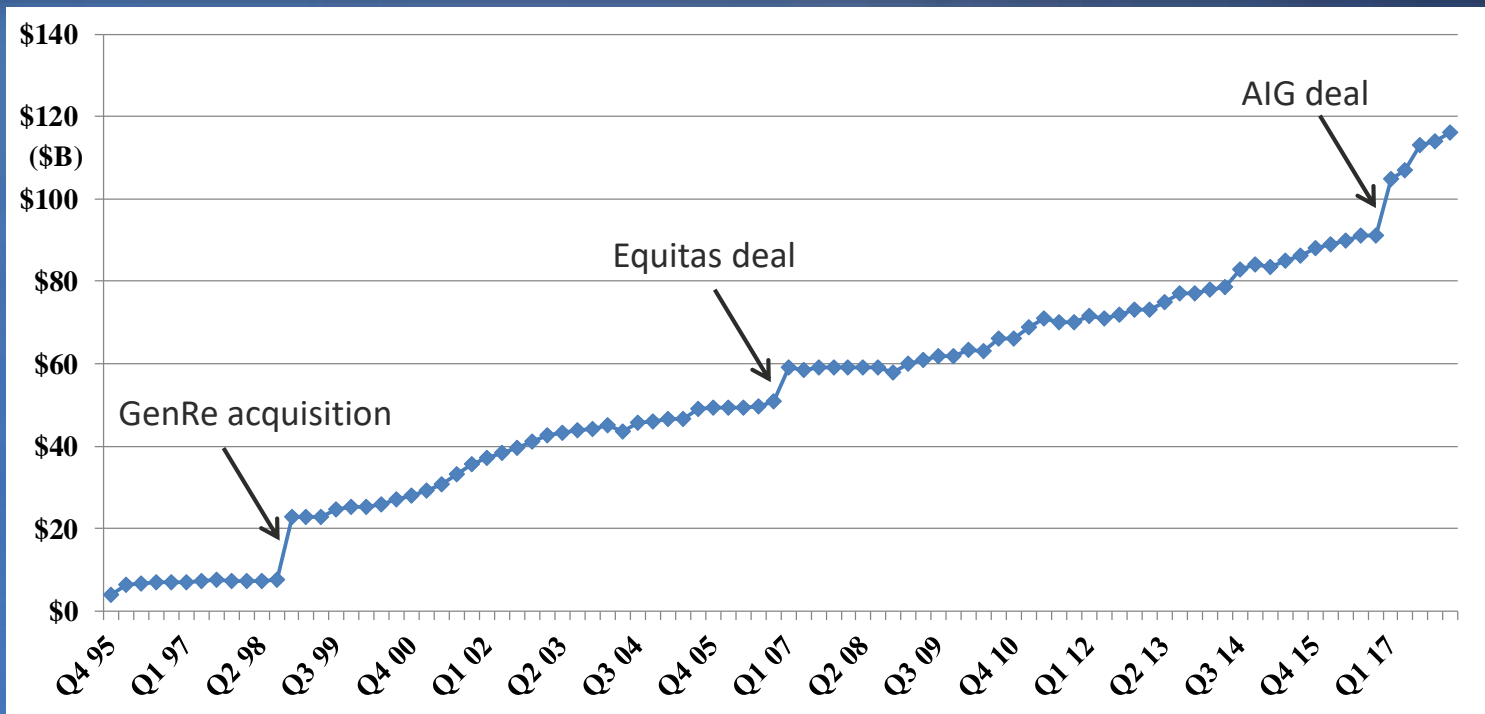
Source: UBS analyst report, 3/28/16.

BERKSHIRE'S NON-INVESTMENT INCOME HAS 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.”

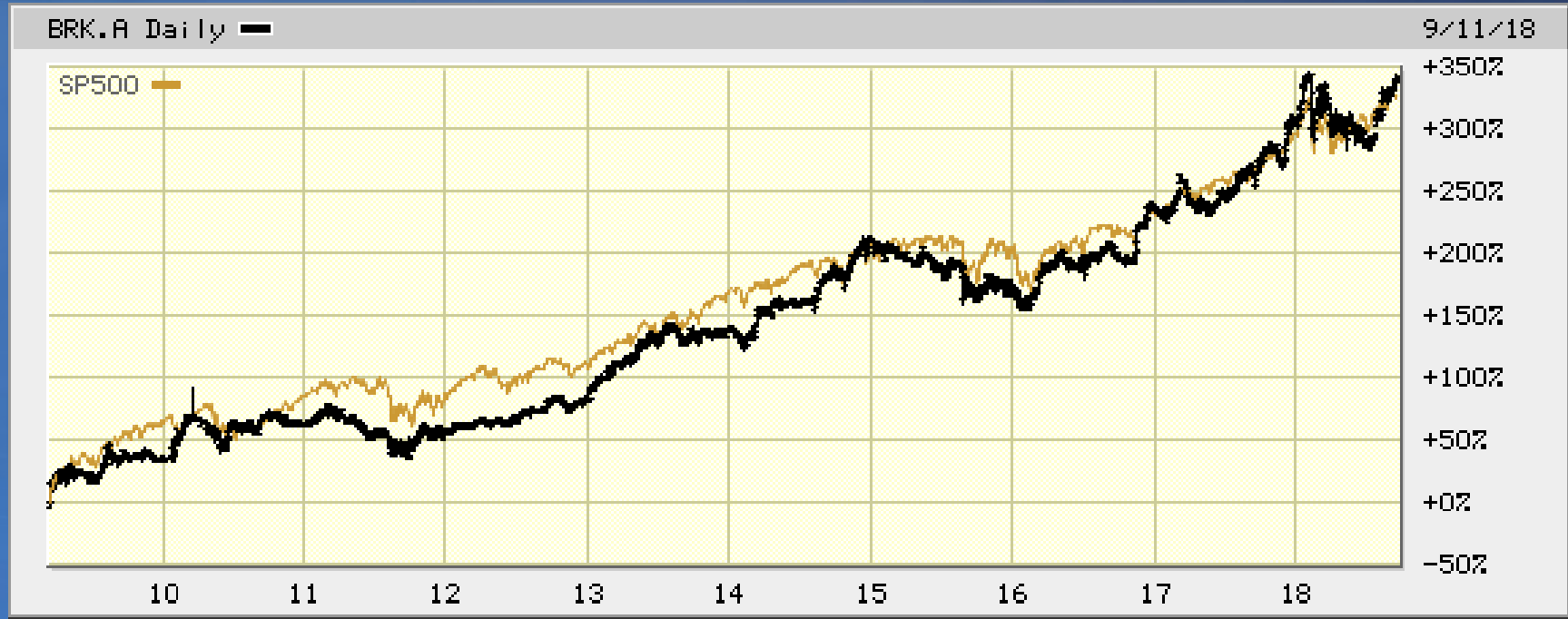
BERKSHIRE'S FLOAT HAS GROWN ENORMOUSLY



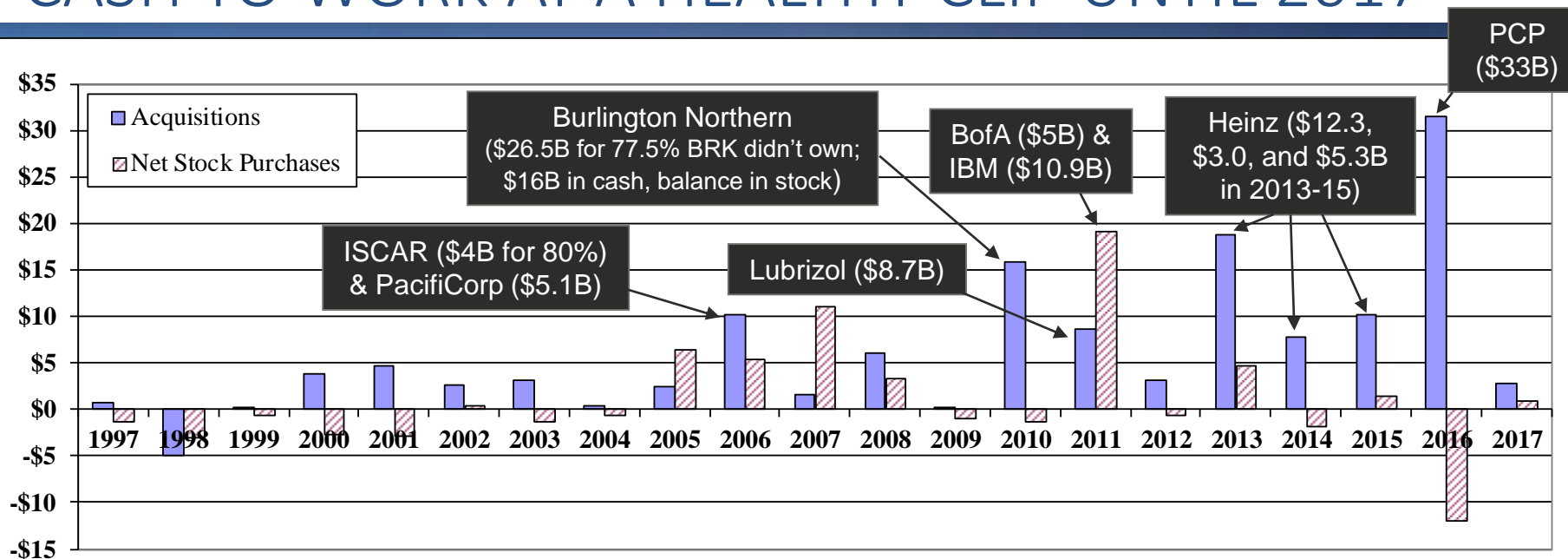
BERKSHIRE'S Q2 EARNINGS WERE EXTRAORDINARY

- Net earnings per share almost tripled from \$4.3 billion to \$12.0 billion.
- These headline numbers were impacted by a number of items, the most important of which was a new accounting rule that requires changes in the value of equity holdings, both realized and unrealized, to be shown in the income statement (previously the income statement only reflected realized gains). In addition, Berkshire is a major beneficiary of the lower corporate tax rate for U.S. corporations (its tax rate fell from 29% in Q2 '17 to 20% in Q2 '18).
- But even excluding these two items, Berkshire's pretax operating earnings soared 67% (!) from \$4.1 billion to \$6.9 billion. The standout was the insurance group, led by GEICO, where pretax income jumped more than 5x from \$119 million to \$673 million. Overall, insurance underwriting profits were \$1.2 billion vs. -\$24 million in Q2 '17.
- Investment income was up almost 8%, increasing to a run-rate of over \$5 billion annually, and the pretax profit of all other operating businesses, the largest of which are manufacturing and BNSF, grew 9%.
- Other items of note:
 - Float grew by \$2 billion year to date to \$116 billion.
 - Book value per share grew to \$217,677 per share, up 3% year to date.
 - No shares were bought back under the repurchase program, but subsequent to quarter end, Buffett said he'd bought some back.
 - Cash and investments per share were virtually unchanged from the end of 2017.

DESPITE BEING VERY CONSERVATIVELY POSITIONED, THE STOCK HAS KEPT PACE WITH THIS LONG BULL MARKET



BUFFETT, COMBS & WESCHLER WERE PUTTING CASH TO WORK AT A HEALTHY CLIP UNTIL 2017



- High valuations are keeping Buffett, Combs and Weschler on the sidelines these days
- But markets have a way of presenting big opportunities on short notice

- Junk bonds in 2002, chaos in 2008

- Buffett has reduced the average maturity of Berkshire's bond portfolio so he can act quickly

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

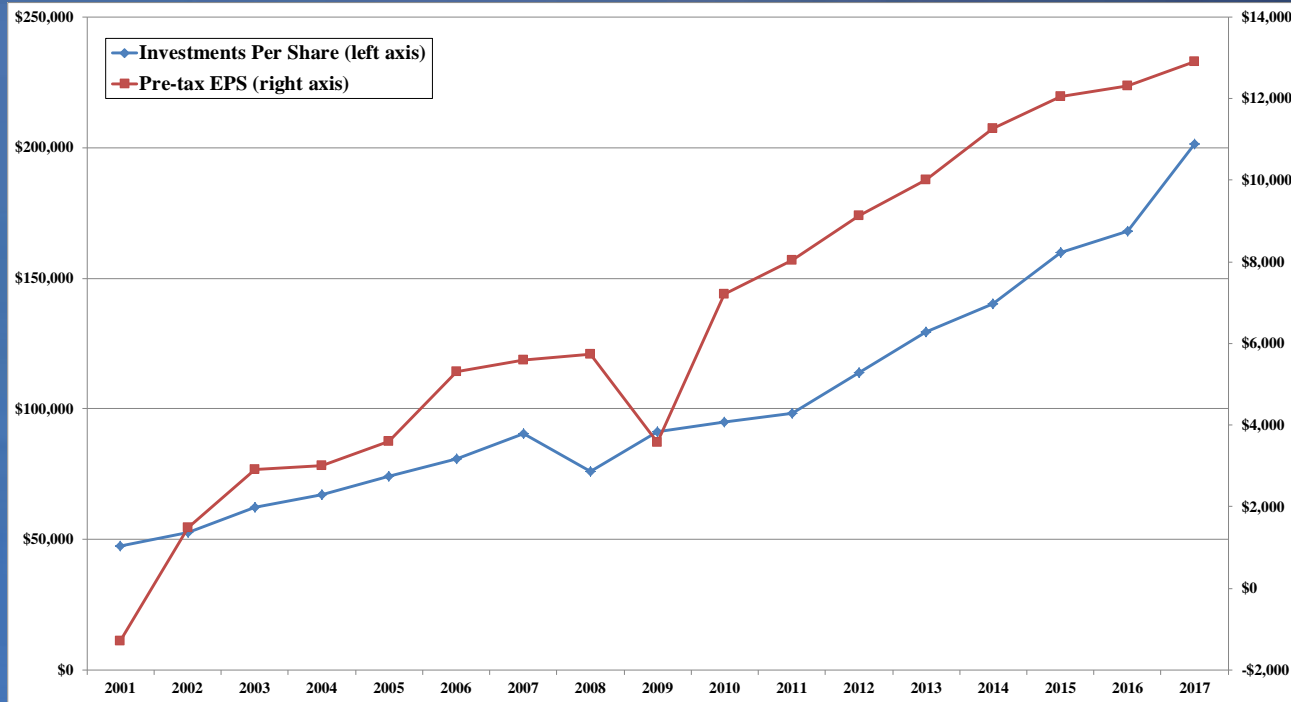


BUFFETT'S COMMENTS ON BERKSHIRE'S VALUATION LEAD TO AN IMPLIED HISTORICAL MULTIPLIER OF ~12X

<u>Year</u>	<u>Investments Per Share</u>	Pre-tax EPS Excluding All		Year-End Stock Price	Intrinsic Value	Implied Multiplier
		Income From	Investments			
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



Note: We subtract insurance earnings, but then add back a conservative estimate of normalized earnings from Berkshire's insurance businesses: half of the \$2 billion of average annual profit over the 14 years prior to 2017, equal to \$608/share.

BERKSHIRE'S INTRINSIC VALUE: 2001-2017

<u>Year End</u>	<u>Cash and Investments Per Share¹</u>	<u>Pre-tax EPS Excluding All Income From Investments²</u>	<u>Intrinsic Value Per Share³</u>	<u>Subsequent Year Stock Price Range</u>
2001	\$47,460	-\$1,289	\$64,000	\$59,600-\$78,500
2002	\$52,507	\$1,479	\$70,255	\$60,600-\$84,700
2003	\$62,273	\$2,912	\$97,217	\$81,000-\$95,700
2004	\$66,967	\$3,003	\$103,003	\$78,800-\$92,000
2005	\$74,129	\$3,600	\$117,329	\$85,700-\$114,200
2006	\$80,636	\$5,300	\$144,236	\$107,200-\$151,650
2007	\$90,343	\$5,600	\$157,543	\$84,000-\$147,000
2008	\$75,912	\$5,727	\$121,728	\$70,050-\$108,100
2009	\$91,091	\$3,571	\$119,659	\$97,205-\$128,730
2010	\$94,730	\$7,200	\$152,330	\$98,952-\$131,463
2011	\$98,366	\$8,036	\$178,725	\$114,500-\$134,060
2012	\$113,786	\$9,124	\$205,027	\$139,610-\$178,275
2013	\$129,253	\$10,013	\$229,381	\$163,038-\$229,374
2014	\$140,123	\$11,260	\$252,720	\$192,200-\$224,880
2015	\$159,794	\$12,060	\$280,396	\$189,640-\$249,711
2016	\$168,099	\$12,322	\$291,323	\$240,280-\$299,360
2017	\$201,317	\$12,903	\$343,253	?

Though book value only rose 2.8% in the first half of 2018, we estimate that intrinsic value has likely risen ~6% as of mid-September, so let's call it \$365,000

1. In every annual letter through 2015, Buffett disclosed both pre-tax earnings as well as cash and investments per share.¹ Since then, we estimate them.

2. We subtract insurance earnings, but then add back a conservative estimate of normalized earnings from Berkshire's insurance businesses: half of the \$2 billion of average annual profit over the 14 years prior to 2017, equal to \$608/share.

3. 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 in 2017 (due to the benefits of the tax reform bill passed at the end of 2017).



BERKSHIRE IS TRADING 12% BELOW ITS INTRINSIC VALUE



* Investments per share plus 12x pre-tax earnings per share through 2007, then an 8x multiple from 2008-2010, a 10x multiple from 2011-2016, and an 11x multiple in 2017.

12-MONTH INVESTMENT RETURN

- Current intrinsic value: \$365,000/share
- Plus 6% annual growth of intrinsic value of the business
- Plus ~\$10,000/share cash build over next 12 months
- Equals intrinsic value in one year of \$397,000
- 23% above today's price

CATALYSTS

- Continued earnings growth of operating businesses
- Likelihood of meaningful acquisitions
- New stock investments
- Additional cash build
- Share repurchases (especially now that Buffett has abandoned the 1.2x book value limit and has repurchased stock above 1.4x)

RISKS: WHO WILL REPLACE BUFFETT?

- When Buffett is no longer running Berkshire, his job will be split into two parts: one CEO, who has not been named (likely Greg Abel and/or Ajit Jain, both of whom were just added to Berkshire's board), and a small number of CIOs (Chief Investment Officers)
 - A CEO successor (and two backups) have been identified, but not publicly named
 - Two CIOs have been named already, Todd Combs and Ted Weschler, both of whom are excellent investors
- 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 at least 75% likely that Buffett will be running Berkshire for five more years
 - Buffett turned 88 on Aug. 30th, 2018, 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 94 – 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 Wells Fargo, Kraft Heinz, Coke, American Express, 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

WHY DOESN'T BUFFETT IDENTIFY HIS SUCCESSOR NOW?

We agree with Buffett's decision not to name his successor for three reasons:

1. It would place enormous pressure and expectations on this person, which is unnecessary and counterproductive;
2. It might be demotivating for the candidates who were not chosen; and
3. Who knows what will happen between now and the time that a successor takes over (which could be more than a decade)?
 - Maybe the current designee falls ill, leaves Berkshire, performs poorly, or makes a terrible mistake (e.g., David Sokol)
 - Or what if another candidate (perhaps one of the two backup successors today) performs incredibly well, or Berkshire acquires a business with a fantastic CEO, and Buffett and the board decide that another candidate is better?
 - By not naming Buffett's successor now, Buffett and the board will be able to switch their choice without the second-guessing and media circus that would occur if the successor had been named

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 15% (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 377,000 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
 - Apple's stock declined less than 1% on the first trading days after both his retirement and death, and has more than quadrupled 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 very large investment goes awry
- A major super-cat event costs Berkshire many billions

CONCLUSION: BERKSHIRE HAS EVERYTHING WE LOOK FOR IN A STOCK: IT'S SAFE, CHEAP AND GROWING AT A HEALTHY RATE

- Extremely safe: Berkshire's huge hoard of liquid assets, the quality and diversity of its businesses, the fact that much of its earnings (primarily insurance) 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
- Upside: trading 12% below intrinsic value (without giving any credit to immense optionality), with 23% upside over the next year
- Growing: Intrinsic value is growing at roughly 6-8% annually

APPENDIX



KASE LEARNING

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>Insurance Group:</u>														
GEICO	970	1,221	1,314	1,113	916	649	1,117	576	680	1,127	1,159	460	462	-310
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
Berkshire H. Primary Group	161	235	340	279	210	84	268	242	286	385	626	824	657	719
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>4,902</u>
Total Insurance Oper. Inc.	4,375	3,533	8,154	8,132	7,586	6,919	7,158	4,973	6,079	7,802	7,025	6,387	6,613	1,663
<u>Non-Insurance Businesses:**</u>														
Burlington Northern Santa Fe							3,611	4,741	5,377	5,928	6,169	6,775	5,693	6,328
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	2,973	2,584
McLane Company	228	217	229	232	276	344	369	370	403	486	435	502	431	299
Manufacturing				436	733	686	813	992	3,911	4,205	4,811	4,893	6,211	6,861
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	1,820	2,083
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>	<u>2,130</u>	<u>2,058</u>
Total Non-Insur. Oper. Inc.	3,065	3,445	6,159	6,727	7,757	4,239	10,113	12,211	14,000	15,458	17,511	18,827	19,258	20,213
Total Operating Income	7,440	6,978	14,313	14,859	15,343	11,158	17,271	17,184	20,079	23,260	24,536	25,214	25,871	21,876

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.



KASE LEARNING

BERKSHIRE'S SHARE REPURCHASE PROGRAM (1)

- On September 26, 2011, Berkshire announced the first formal share repurchase program in Berkshire's history, and only the second time Buffett has ever offered to buy back stock
- It's unusual in three ways:
 1. There's no time limit
 2. There's no dollar cap
 3. Buffett set a price: "...no higher than a 10% premium over the then-current book value of the shares. In the opinion of our Board and management, the underlying businesses of Berkshire are worth considerably more than this amount..."
- In December 2012, Berkshire increased the limit to 1.2x book and announced that it had repurchased \$1.2 billion in one transaction
- In July 2018, Berkshire announced a new repurchase program whereby there's no limit to the buybacks so long as the company's consolidated cash balance stays above \$20 billion and the valuation of the stock is less than intrinsic value in the eyes of Buffett and Munger

BERKSHIRE'S SHARE REPURCHASE PROGRAM (2)

- Buffett said in an interview that he bought back some stock subsequent to the end of Q2, which is a major development since the stock was trading above 1.4x book value
- It confirms that Buffett shares our belief that Berkshire stock remains undervalued
 - He wouldn't be buying it back at a 40% premium to book value if he thought its intrinsic value was, say, 50% above book
- Buffett has put a new (albeit soft) floor on the stock: he appears eager to buy back *a lot* of stock – and he has plenty of dry powder to do so:
 - Berkshire has \$103 billion of cash (excluding railroads, utilities, energy, finance and financial products), plus another \$19 billion in bonds (nearly all of which are short-term, cash equivalents), which totals \$122 billion, meaning he has over \$100 billion to deploy
 - On top of this, the company is generating well over \$20 billion in free cash flow per year – in other words, the better part of ~\$2 billion is pouring into Omaha every *month*
 - It's unlikely, however, that Buffett would repurchase anything close to this amount, as some of the cash and bonds are held at various insurance subsidiaries, plus Buffett likely wants to keep plenty of dry powder to make acquisitions and investments
 - In summary, Buffett could easily buy back \$75 billion of stock *and* still have plenty of dry powder for other investments

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.

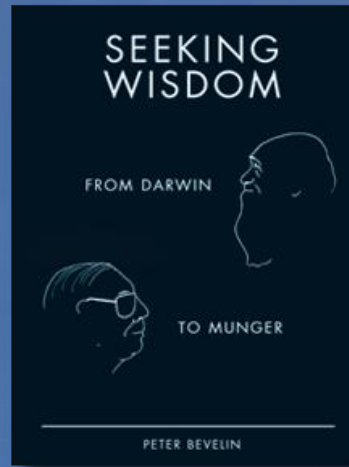
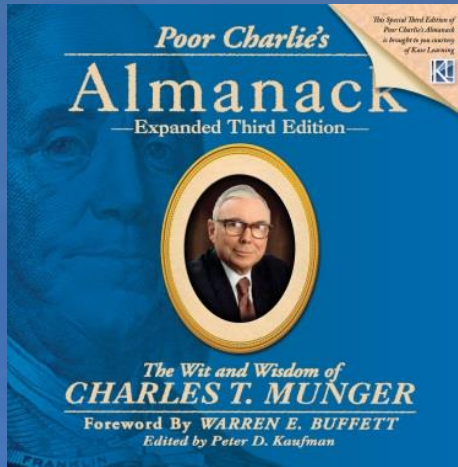
DON'T OVERLOOK MUNGER – HE IS A GENIUS IN HIS OWN RIGHT (2)

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





KASE LEARNING