

June 2017

EXECUTIVE SUMMARY

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Market Update

As the stock market inches to new highs, we continue to be of two minds.

On the one hand, clearly this is a time for caution. We are eight years into a bull market. Valuations are full. The stock market cap to GDP ratio is at the high end of its range. Global tensions appear to be on the rise. The actions of the current administration have done little to inspire clarity and trust. Most concerning to us, the world's central bankers have played the zero-based interest rate game for nearly a decade and amassed enormous amounts of sovereign debt along the way. How all this unwinds is the economic question of our time.

On the other hand, business is good. Wages are on the rise. The jobless rate has fallen to a 16-year low. Real estate prices have recovered, so millions of Americans have been restored to positive home equity. America continues to lead the world in innovation and entrepreneurial spirit. We agree with Buffett that people are "nuts" to own bonds at these ultra-low rates (lots of risk for little return). We would much rather own well run businesses in the current environment. Remember that businesses are dynamic. They can and do adjust to the world as circumstances change. In particular, we favor well run companies with intelligent owner/operators with strong balance sheets. Such companies are built to withstand difficult times. Indeed, such companies thrive on adversity, as that

is often when the most compelling bargains and investment opportunities arise.

University of Berkshire Hathaway – The Book

Since Buffett and Munger always expressed themselves candidly and clearly, once you've read Daniel and Corey's copious notes, you'll understand Berkshire's extraordinary approach to investing. This book is a true gem.

- Jean-Marie Eveillard

As most of you know, *University of Berkshire Hathaway* (UBH) is our new book, a compilation of 30 years' worth of Berkshire annual meeting notes. Over the years, UBH became our pet name for the meetings, as they were such extraordinary learning events. Corey and I are very pleased with how the final version of the book came out. It feels so satisfying to have all those years of study and effort packaged and shared in this elegant way. We're not too attached to what happens now. And yet....

Corey and I have been delighted with how the book has taken off! Kudos to our mad scientist editor, Austin Pierce, who is also our entire book promotion department.

Thanks to all who've supported us on this project. A special thanks to those who have written reviews at Amazon. We've also received some wonderful notes, letters and feedback from friends, clients, and Berkshire board members. We feel most grateful and fortunate.

University of Berkshire Hathaway – The Meeting

On to this year's meeting which was held, as usual, on the first Saturday of May in Omaha. Attending UBH is an opportunity to be immersed in the tenets of value investing from the masters, "professors"

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Warren Buffett and Charlie Munger. Despite the webcast of the meeting (which reduces the need to travel to Omaha), attendance was as big as ever. Some 40,000 of Warren's and Charlie's closest friends gathered for the big event.

One reason for the large turn-out may be that last year Warren added an extra shopping day by having the Berkshire mall open on Friday. This year, shareholder/shoppers were ready. The place was packed. We would guess past record sales figures for the annual event were handily exceeded by this year's eager treasure hunters.

Buffett and Munger have presided over one of the greatest records of wealth building in history. Since Buffett took over Berkshire in 1965, Berkshire's per share book value has grown from \$19 to \$172,108, a rate of 19% compounded annually. That's nearly double the S&P 500's 9.7% annualized percentage gain for the same period. From a small New England textile company, Berkshire has snowballed into one of the world's largest companies. With \$283 billion of equity and \$105 billion of float, Berkshire has substantial capital with which to fund its operations.

At a recent price of \$165 per share on the "B" shares, Berkshire trades at a 10-15% discount to our appraisal of intrinsic value and at a 20% premium to the price at which Berkshire would consider buying back shares (120% of book value = \$138 per "B" share). Though not an especially cheap price, Berkshire offers unparalleled quality, so the value is reasonable at current levels.

The Movie

The festivities began with a one hour movie, which serves the dual purpose of entertaining and educating the shareholders. A couple favorite vignettes. A send up from "Breaking Bad" where Buffett is making a deal with Walter White for peanut brittle. Scene steams with intensity. Buffett calls Munger once the deal is made. Munger, leaning back in his leather chair, chomps on some brittle and smugly says, "Brittle bitches." Another was a Munger clip (we believe from the Daily Journal meeting) where he talks about being a nerd

and dating. He gets a date with a blond goddess, inadvertently sets her on fire, and douses her with Coke. He encourages fellow nerds to persevere. (His version of an inspirational speech, we suppose.)

Buffett opened the meeting with a review of the first quarter earnings. We'd like to take a little time with this. While the review was relatively short, in a sense, it was a lecture unto itself, as it illustrated so many elements of the Berkshire model. For the quarter, per share earnings were \$4,060 versus \$5,589 a year ago. However, it is not what the numbers are but *what they mean* that matters. The key question is always "did intrinsic value grow?" To that Buffett clearly believed the answer was "yes," making it a good quarter from his perspective.

First, he proudly noted that GEICO had added over 748,000 new policyholders since the beginning of the year. (For comparison, GEICO added 707,000 policies in 2015 and 974,000 in 2016.) Rate increases at competitors led GEICO to pounce. Loss costs have increased sharply in the industry (Ed: largely due to "distracted driving" – texting is dangerous!) and some competitors decided to slow down taking on new business. Acting more like a cheetah than a lizard, GEICO's response was to accelerate its new-business efforts. Buffett regards each policyholder as a lifetime stream of premiums. Each policy is worth something like \$2,000 to Berkshire (thank you, Tom Russo, for reminding us). Thus, GEICO added some \$1.5 billion of intrinsic value (748,000 x \$2,000 per policy) to Berkshire in just the last four months. Impressive.

Second, Buffett noted that Berkshire's float had hit a new high of \$105 billion, thanks primarily to a deal with AIG where Berkshire received a \$10.5 billion premium for taking on 80% of substantially all of AIG's U.S. commercial long-tail exposures for accident years 2015 and prior. It's good for AIG, allowing them to unload a troublesome book of business that was depressing earnings. (AIG is currently in the sites of activist Carl Icahn.) Good for Berkshire, since Berkshire gets lots of money up front (float) to work with in exchange for paying out claims over many years.

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By highlighting these two events, Buffett was teaching the shareholders several essential lessons:

For one, focus on intrinsic value growth, not reported earnings. Again, it's not what the numbers are but what they mean that matters. Each business will have a couple of unique factors that are essential in evaluating its progress. Often, *those couple factors are not immediately reflected in the reported earnings*. In our short attention span world, analysts and the media so often focus on reported earnings and look no deeper.

With GEICO, one of those essential factors is the policyholder count. Buffett is telling us that. Another is the combined ratio, which reflects the profitability (or lack thereof) of those policies over time. There is also the generation of float. With GEICO, these are the things that matter. And they are all growing in a good way. In particular, growth in policyholders has accelerated.

For the Berkshire insurance operation, the growth of no or low-cost float is primary. Adding \$10.5 billion of float (an 11% increase in one fell swoop) is a major addition to intrinsic value. If the float comes with little or no cost, it acts much like equity. No wonder Buffett is delighted with the AIG deal.

Another lesson is how Berkshire's laser focus on long term intrinsic value growth and comfort with lumpy earnings puts it at a major advantage to its publicly traded peers. In the case of GEICO, competitors are ceding market share to shelter profit margins. Under pressure from analysts, shareholders, and other constituencies, public companies are often driven to forgo the long term, rational decision in favor of short term gratification. In the case of AIG, the company is ceding 80% of its pre-2016 U.S. commercial book to improve the optics of its quarterly earnings with Carl Icahn breathing down its neck. This dynamic has created tons of value for Berkshire over the years.

Third, it highlights the value of momentum and share of mind for GEICO. GEICO has long been the low-cost operator in auto insurance. In addition, GEICO management has invested heavily to make the company ever more efficient. To top it off, after

years of massive marketing, GEICO has also created a large share of mind. Who doesn't know where they might save 15% on their auto insurance? When companies raise prices, consumers shop. GEICO immediately and successfully responded to this ripple in the market by putting the pedal to the metal on its new-business efforts. GEICO pounced.

Fourth, it highlights the value of Berkshire's Fort Knox balance sheet and reputation for fiscal soundness. When an insurance company cedes a book of business to a reinsurer, they are still on the hook if the reinsurer fails to pay. AIG had 10.5 billion reasons to only do that deal with Berkshire. No other company could have done that AIG deal.

So, again, quarterly earnings were down. Digging deeper, Buffett let us know that it was a good quarter for growing intrinsic value. And that's what counts at Berkshire Hathaway.

Back to the meeting:

Technology

A question about technology turned into a fascinating revelation on Buffett's investments and non-investments in this arena. For one, Berkshire sold some IBM. Buffett admitted that he has been wrong on IBM. He thought it would do better over the last six years. For another, Berkshire has recently accumulated an \$18 billion stake in Apple. Buffett explained that while Apple obviously has products with lots of technology built into them, the big question is what will its customers do over the years ahead. Munger noted that Buffett's purchase of Apple suggests that either he is crazy or he is learning, most likely the latter.

The Technology Age

Buffett rocked the meeting by declaring that people don't appreciate how much the world has changed. He noted that the five largest companies in the U.S. by market cap (excluding Berkshire) – some \$2.5 trillion of market value – now represent 10% of the whole market. These five companies (Alphabet, Amazon, Apple, Facebook, Microsoft) require no equity capital to run them. None. It's a very

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different world. It used to be that growing and earning larger and larger amounts of money required large reinvestments of capital. Not so with these top 5 which generate *almost infinite returns on capital*.

Buffett mused that Andrew Mellon would be baffled. In his world, growth could only come with more capital. More trucks. More factories. More plant and equipment. Our capital system was built on real tangible assets with innovation.

Munger cautioned that venture capital has been chasing this trend hard and has lost lots of money doing it. Only a few will win big.

(Ed: What we hear Buffett saying, in a sense, is that as huge as the “FANG” type stocks have been, *they are still underappreciated*. From this we infer that these stocks may still not be fully valued, as people do not understand just how radically different their capital models are from those of the past. And this includes us. While we own Apple and Google for clients, we need to look even more closely at this change in business models.)

Google

Munger asserted that they have no advantages in technology. That they weren't smart enough to figure out Google when it was right in their laps. Buffett agreed that they were very close-up on Google. They knew GEICO was paying \$10 a click and they were happy to do it. Furthermore, Google had no incremental cost. The owners even came to see Buffett before the IPO. Buffett confessed: “I blew it.”

Munger added that they saw Wal-Mart as a total cinch and blew that one too. (Ed: Munger is a long-time board member of Costco, so he knows big box retailing. Why has Berkshire never taken a meaningful stake in Costco?)

Amazon

While Berkshire also does not own Amazon, Buffett saw this as less of a miss. He noted that it is difficult to predict winners in new areas. Even more amazing is when a person builds two major

businesses from a standing start, as Jeff Bezos of Amazon has done with retail and the cloud. Buffett noted that Bezos laid out his vision in the 1997 annual report. (He also recommended checking out the Charlie Rose interview of Bezos.) Even knowing what his plans were, the successful execution of them would have been a long shot. Munger observed that what Amazon has done was very difficult and not at all obvious. Missing Google was worse. Munger concluded that Jeff Bezos is a different species.

Indexing

Buffett had John Bogle, who was turning 88 years old, stand up for recognition. Buffett joked that in two years, Bogle would be eligible for an executive position at Berkshire. Buffett praised Bogle for his lifelong championing of the idea of index funds. Later in the meeting, Buffett discussed his big bet with a fund of funds back in 2007. He reviewed his reasoning that a fund of hedge funds, which charge 2 and 20 (2% of the assets plus 20% of the profits) in aggregate, simply could not beat the index. By definition, a large group of aggregated returns will be average. Subtract large fees and the result must be worse than average. Buffett asserted that it's the sales culture of Wall Street that's perpetuated the scheme.

Munger joked that a hedge fund manager was asked, “Why do you charge 2 and 20?” The manager replied, “Because I couldn't get 3 and 30.”

The Wells Fargo Error

In a response to misdeeds at Wells Fargo, Buffett noted that Berkshire benefits from decentralization. However, with hundreds of thousands of employees, there is no question that a few somewhere are behaving inappropriately. Berkshire leans heavily on principles of behavior rather than loads of rules. He claimed that a culture that self-selects is better than a 1,000-page manual. Buffett sends a letter every other year to all the managers with the “Salomon pledge”: “*Lose money for the firm and I will be understanding. Lose one shred of reputation for the firm and I will be ruthless.*”

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With Wells Fargo, Buffett observed that there were three errors but one of them, in particular, dwarfed the others. One error was to inadvertently incent bad behavior. In addition, as with any strong sales culture, there is a risk of pushing too hard. But the giant error here was that when the program runs off the rails, *the CEO must act*.

Buffett recalled the Salomon scandal. Paul Moser of Salomon was flim flammng the Treasury auctions with phony bids. The then CEO, John Gutfreund, got the news and said he'd take care of it. He didn't. In fact, Gutfreund compared the infraction to a "traffic ticket." Then Moser did it again. The pyro-maniac had lit another fire. That's when things imploded for Salomon. This "traffic ticket" nearly brought down the enterprise. There are times when the CEO must act.

With Wells Fargo, the top brass underestimated the impact of fraudulent account openings. The fines totaled \$185 million, not an amount that seemed all that offensive. It was a huge miss. The CEO did not act.

Buffett revised Ben Franklin: *An ounce of prevention is worth a ton of cure.*

Driverless Cars

Buffett noted that driverless cars were a threat to both GEICO and the railroads. Safer roads would bring down economic loss costs which would mean less premium dollars for GEICO. Safer trucks would provide stiffer competition for the railroads. However, Buffett added that he thinks it's all a long way off.

Munger: "I think that's perfectly clear."

Buffett: "Finally, approval after all these years."

Ideal Buy

Buffett said he knows a great deal when he sees it. Every situation is unique. In general, he loves a competitive advantage that can last for decades, talented and eager managers who fit the Berkshire

culture, and, of course, a good price. He reviewed how buying See's Candy in 1972 was a watershed moment. They paid \$25 million net for an entity earning \$4 million pre-tax that has since generated \$2 billion of pre-tax earnings. See's Candy was special then and it's special now. However, for a slightly higher price, they would not have bought it.

Munger: "We were young and ignorant."

Buffett: "Now we're old and ignorant."

Continuous Learning – Early Stupidity Helped Us

One of Buffett's annual themes is the value of learning. He noted that life properly lived is learning, learning, learning all the time. He observed that being wrong is when he learns the most.

Munger chimed in that there's nothing like personal painful experiences to help you learn. He added that they had a lot of early experiences fixing horrible businesses and that it helps to have your nose rubbed in it. Buffett agreed that their early stupidity really helped them. Munger put it more graphically, "*Painful experience is a lot like eating cockleburs. It really gets your attention.*" Buffett added that if you want to be a good evaluator of a business, run a lousy business for a while. You can see how awful it can be and that having a high IQ doesn't help.

(Ed: We can't help but feel a little vindication. In 1986, one of my questions was whether owning the Berkshire textile mills, while an economic mess, did add value to Berkshire by lessons learned and showing Buffett's patience and loyalty with owned businesses. Buffett made a joke about my question, I blushed, and I don't remember what he said after that. Hah! In any case, at this year's meeting, they clearly made the case that those early mistakes were formative in building the Berkshire compounding machine.)

Durable Competitive Advantage

Asked about some of his more challenged investees, such as American Express, Coca Cola, Wells Fargo,

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and the airlines, Buffett reminded us that these companies were not purchased because they would never have problems or competition, but that they had *durable competitive advantages*. In the case of American Express, he noted that the Platinum Card is doing very well. Berkshire is now the largest holder of four of the largest airlines – while the industry has its problems it also has some strengths. There is also a judgement on the ability of management to ward off competitors. He noted National Indemnity, purchased in 1968 for \$8 million, has become a huge asset for Berkshire after years of warding off marauders.

Buffett summed up that what you want is an economic castle with a very wide moat and an honest, talented knight to handle marauders.

Munger: “I have nothing to add.”

Buffett: “We’ll cut his salary if he doesn’t participate.”

Airlines

Remarkably (to us anyway), Buffett very clearly laid out his rationale for Berkshire’s airline investments. Seldom does he lay out his cards so directly.

Operating at 80% of capacity in seat/miles, Buffett sees it as very likely that revenues per passenger mile will rise for the next 5-10 years. Surprisingly, the airlines are earning higher returns on capital than UPS or FedEx. In addition, the airlines are buying in lots of stock at very low multiples. Even if business proves to be flat, the stocks will be worth more on a per share basis in years to come. He cautioned that it’s no cinch. Will pricing be rational or suicidal? What will happen with oil prices? While labor relations seem more stable, there is a shortage of pilots.

Munger noted that the railroads were terrible for decades and decades, and then things changed and they got good.

Buffett summed up that the keys will be operating margins, fewer shares, and the intensity of pricing competition. (Ed: Again, Buffett teaches us that

every industry has a few essential variables. These are the ones for his airline bet.)

Intrinsic Business Value

Buffett noted that intrinsic business value can only be calculated in retrospect: cash generated between now and judgement day discounted back to the present at an appropriate interest rate. While book value is a starting point, even 120% of book (Berkshire’s stock buyback hurdle) understates Berkshire’s intrinsic business value.

Going back to 2007, Buffett estimated that Berkshire has compounded at about 10% a year. Going forward, Buffett mused that it will be tough to achieve that rate of growth with interest rates so low. The one statistic he would want to know for the future would be “*what will the interest rates be over the next 20 years?*” Buffett’s guess is that rates will be somewhat higher in the next 20 years. If so, maybe 10% a year for Berkshire will be achievable. If rates stay low, Berkshire will likely do less than that.

However, Buffett affirmed that Berkshire is built to last. He asserted that the chances of Berkshire having a terrible return are as low as you can find. And the chances of Berkshire having a sensational return are also as low as you can find. Munger noted that size is the anchor of performance and they are proving it. (Ed: Size also has its advantages: only Berkshire was big enough to do the AIG deal.)

Munger also asserted that Berkshire’s collection of businesses is superior to those of the S&P 500 on average. Buffett agreed noting that Berkshire’s culture is significantly more shareholder-oriented than that of the companies in the S&P 500. Berkshire’s owner-oriented culture and mindset is distinctly different from most public companies which are subject to all sorts of pressures.

Buffett went even further, saying “There’s nothing I can think of that would break Berkshire.” Berkshire has such a wide variety of earnings streams. In every way, Berkshire is structured to handle stresses. (Ed: Buffett brings up this diversification

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of earnings streams often. It's what allowed the Berkshire Insurance Group to show a profit after Hurricane Andrew. He's been building this diversification into the utility subsidiaries and operating businesses as well.)

Munger insightfully concluded: "A lot of people are trying to be brilliant. We're just trying to stay rational. That's a big advantage. Trying to be brilliant is dangerous."

Tax Cuts

Regarding the proposed tax cuts, Buffett observed that effects can vary widely. For Berkshire's regulated businesses, returns are regulated, so all benefits would flow through to the customers. For other businesses, the gains may be competed away. For monopolies, all the benefits would flow to the corporate bottom line. History shows that overall benefits would be split between businesses and consumers.

Risk Averse

Munger noted that if things went to hell in a handbasket, Berkshire would do much better. While he doesn't wish adversity on anyone, Berkshire benefits from times of chaos. Buffett noted that when the world is fearful, people have a hard time believing things will get better. Berkshire has no such trouble. Buffett's trust that things will recover, time and again, has allowed him to put lots of money to work in troubled times. And when fear hits, things can happen faster than you can believe. As an example, Buffett noted that in 2008, with \$2.5 trillion in money market funds, \$750 billion flowed out in a week.

A cute aside, Buffett noted that his Aunt Katie, who lived to age 97, lived simply and owned \$200 million worth of Berkshire stock. Yet she would write to Warren every 3-4 months: "Sorry to bother you but am I going to run out of money?" He would write back: "Dear Katie, It's a good question. Because if you live 986 years, you're going to run out of money." He concluded that "there's no way in the world, if you've got plenty of money, that it should become a minus in your life."

Insurance

Buffett complimented Ajit Jain for adding more value to Berkshire than Buffett has. He also lauded other managers within the Berkshire insurance division. He noted that specialty insurance with \$1.3 billion in premium, a 40% increase, is destined to be a world leader.

Buffett declared that Berkshire has the world's best property casualty operation even without Ajit. And, with Ajit, no one comes close.

Owned Companies

Buffett noted that he favors buying whole companies for Berkshire and that Berkshire is a good home for such businesses. Buffett relayed one business owner's lament that if he sold to a competitor, they would run it their way and dump his people. If he sold to a leveraged buyout firm, they would lever it up and then resell it. By selling to Berkshire, he could perpetuate the business and team of people he'd worked so hard to create. The owner concluded, "It's not that Berkshire is so special. It's just that there is no one else." Buffett joked: "Don't tell that to your spouse."

Munger concluded that while there is much competition for the purchase of whole companies, it's been tough for a long time and, yet, Berkshire has still managed to buy a number of good businesses.

Railroad Notes

It appears slower growth lies ahead for BNSF. While it would be more fun if aggregate car loadings could grow at 2-3% annually, Buffett believes that is not likely. He observed that rail car loadings peaked in 2006. Since then, coal loadings are down sharply and unlikely to rebound. Overall volumes are down. When asked about the Panama Canal's effect on transportation, Buffett felt it would divert some cargo to the East Coast but would not be that big a deal. He likes the long term prospects for the West better than the East. Overall BNSF has a terrific system.

Capital Allocation

For his successor, Buffett emphasized that proven capital allocation abilities would be the key. Buffett estimated that Berkshire will need to allocate some \$400 billion over the next decade. That far exceeds all the money put into Berkshire to date. Clearly capital allocation will need to be the foremost talent. Buffett noted that such a person would need a “money mind”. Even someone with an IQ of 140 can have a very different mind where they do poorly at investing. It takes a money mind to think well about money and investing.

Precision Castparts

Buffett has been pleased with this acquisition, noting that the company has a strong position in the aerospace industry and extraordinary management. Buffett noted that Precision Castparts (PCP) earnings are understated to the extent that there is \$400 million of annual amortization from the purchase. Buffett loves the long-term prospects for aircraft parts and that they are unlikely to be digitally replaced (“there will be no 3-D printing of aerospace parts”). Overall, Buffett believes PCP has a great future.

(Ed: We anticipated that part of the appeal of PCP was its ability to make acquisitions, and PCP has done two deals already. (PCP CEO, Mark Donegan, told Corey that he loves working for Warren.) Presumably, when Donegan sees a deal worth doing, all he has to do is pick up the phone and call Omaha. In addition, Berkshire gives him the freedom to invest in developing long term aerospace contracts. While such aerospace parts cycles are expensive upfront, they can create very long term, lucrative earnings streams. Back when PCP was a public company, the lumpy earnings process caused Donegan plenty of headaches working with shareholders, bankers, and analysts. Now, working at Berkshire, he is free to build long term intrinsic value without undue concern for short term turbulence in profit cycles.)

Productivity

Buffett fielded several questions about 3-G partners and their aggressive cost cutting ways. The discussion quickly expanded to an overview of productivity. As he did in the 2016 Berkshire annual report, Buffett reflected on the history of productivity improvement. He noted that without it, we’d still be living as we did in 1776. 80% of the American working population was on farms 200 years ago. Farming, steel, retail – all these areas have always been getting more productive. America is a story of constantly finding better ways to do things.

With Kraft Heinz, 3-G found they could run things with fewer people. Buffett asserted that 3-G was fair in severance. Munger chimed in that he would not care to be a subsistence farmer nor does he miss the elevator operator. While it’s unpleasant for those involved, productivity and change are part of life. He noted that textiles, Berkshire’s original business, were headed for oblivion. While it wasn’t fun, it was pro-social for textile production to move where it could be more efficiently done. Berkshire’s mills were closed and 2,000 people were let go. Munger agreed that there is nothing wrong with improving productivity. However, he did allow that just because you’re right, doesn’t mean you should always do it.

With Artificial Intelligence, Buffett observed that more change will be coming. Almost certainly it will cause less employment in certain areas, while being good for society overall. Buffett offered a thought problem: let’s say one person could push a button and the entire U.S. GDP would be produced. 150 million workers would be without jobs. It would be an enormously disruptive transformation and pro-social eventually.

Munger discerned that it is a matter of how fast people adapt. When air conditioning came along, acceptance was immediate. No one wanted to go back to being stinky and sweaty in the South. He wrapped up the topic by opining that change will continue, but it won’t happen that quickly, so people don’t need to worry so much.

Berkshire Hathaway Energy – Wind and Solar

Buffett is proud of Berkshire's large investments in wind and solar and has a large appetite for more. Buffett said that if there were a \$5 billion solar project, they would look at it. Iowa has proved to be a bonanza for wind projects. In 2016, wind generated 55% of all megawatt-hours sold to Iowa retail customers. New projects are underway that will take that figure to 89% by 2020. Buffett concluded that Iowa is terrific for wind and California is terrific for solar.

One of the keys is that Berkshire pays lots of taxes, so the tax subsidies for wind and solar have real value to Berkshire. In contrast, most public utilities (1) don't have much cash after dividends to invest and (2) don't pay much real tax, so the tax subsidies are of little or no value.

Buffett said that Greg Abel has done a sensational job. Berkshire Hathaway Energy's prices are 21-33% lower across the states they serve. While utilities in the Midwest region produce power on average for 9.7 cents per kilowatt, Mid America Energy is getting it done for just 7.1 cents.

Buffett predicted that in the next ten years, Berkshire will have significantly more money invested in utility systems and that Berkshire is the buyer of choice with utility commissions.

Opportunities

Munger suggested that you must fish where the fish are. China has lots of fish. In the U.S. market, there are too damn many boats.

Healthcare

In 1960, Buffett reported that corporate taxes were 4% of GDP and healthcare costs were 5% of GDP. Today, corporate taxes are 2% and healthcare is 17% of GDP. Corporate tax rates are down over the past 50 years. Meanwhile, healthcare costs have soared. Buffett labeled medical costs *the tapeworm of American economic competitiveness*. The rest of the world spends 5-10% of GDP on healthcare, mostly with socialized medicine. Munger piped in that there is much in medical care that he doesn't like. Too much chemo for the almost dead, doctors doing too many unnecessary surgeries. He asserted that it is not moral. However, vested interests are hard to change. We are in love with our lifesaving technologies. The system is crazy and the costs are wild. Munger predicted present trends will only get worse.

Legacy

Munger noted that Warren once joked that he hoped people said at his funeral: "that's the oldest looking corpse I ever saw." Munger, on a comic roll, shared that he doesn't want to end up like the man at whose funeral the reverend asked for someone to say something about the deceased. He waited. And waited. Finally, a man in the back said, "His brother was worse."

As in years past, Buffett said he would like to be remembered as a teacher. He shared that he's had the greatest teachers over his life and is very grateful for that.

(Ed: As are we. Buffett and Munger are among the greatest teachers any investor could have. We are lucky, indeed.)

Dan Pecaut Corey Wrenn

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Berkshire's Cash/Bond/Stock Ratios 1979 through 2016

In a reprise of our April 1999 newsletter, we review Berkshire's cash/bond/stock allocations. We find it worthwhile to contemplate changes in allocations. For example, after keeping equities around 40% for much of the "lost decade," Buffett's had the pedal down since 2008, with equities and other investments rising to the highest levels since 1997. Over the last few years, Berkshire has been a steady buyer of equities and allowed cash to expand, while the allocation to fixed income has dwindled. Buffett keeps a minimum \$20 billion in cash reserve for insurance catastrophes.

Year	Investment Portfolio (in millions)	Percentage Allocation		
		Cash and Cash Equivalents	Securities with Fixed Maturities	Equities and Other Investments
1979	\$ 615	5%	30%	65%
1980	764	8	24	68
1981	911	8	22	70
1982	1,162	5	16	79
1983	1,516	5	14	81
1984	1,710	10	18	72
1985	2,676	38	18	44
1986	3,288	9	34	57
1987	4,666	5	44	51
1988	5,639	5	32	63
1989	8,263	2	34	64
1990	8,994	3	34	63
1991	12,283	6	19	75
1992	14,948	8	14	78
1993	16,487	11	13	76
1994	18,355	2	15	83
1995	26,362	10	6	84
1996	35,537	4	18	78
1997	47,548	2	22	76
1998	74,589	18	29	53
1999	73,565	5	41	54
2000	77,086	6	43	51
2001	72,471	7	51	42
2002	80,494	13	50	37
2003	95,589	33	27	40
2004	102,929	39	22	39
2005	115,615	34	23	41
2006	125,715	30	20	49
2007	141,217	27	20	53
2008	122,025	20	22	58
2009	145,982	19	22	59
2010	147,772	24	23	53
2011	153,909	22	20	58
2012	176,331	24	18	58
2013	211,308	20	13	67
2014	228,906	25	12	63
2015	236,803	25	11	64
2016	257,874	28	9	63

Note: In 1985 cash swelled due largely to the buy-out of General Foods by Philip Morris.
The 1998 General Reinsurance merger shifted the percentage in equities from 76% to roughly 55%.
Kraft Heinz valued at year end market value.