

BERKSHIRE HATHAWAY 2017 ANNUAL MEETING NOTES

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We tuned into Berkshire Hathaway's annual meeting webcast held on May 6, 2017, in Omaha. Warren Buffett, Chairman of Berkshire Hathaway, and Charlie Munger, Vice-Chairman, answered questions from shareholders, analysts and the media. Here are our notes from the annual meeting:

INTRODUCTION

Warren Buffett: That's Charlie and I'm Warren Buffett. You can tell us apart because he can hear and I can see. We work well together. We each have our specialty. I'd like to welcome you to Omaha. It's a terrific city. Charlie has lived in California now for about 70 years, but he still has a lot of Omaha in him. Both of us were born within 2 miles of this building that you're in. Charlie graduated from Central High which is about one mile from here, it's a public school. My dad, my first wife, three children and two of my grandchildren have all graduated from the same school, and in fact, my grandchildren will say they have had the same teacher that my dad and I had. It's a great city. I hope you get to see a lot of it while you're here.

FIRST QUARTER EARNINGS

Our earnings report was put out yesterday. The realized investment gains or losses over any given period really mean nothing. We could take a lot of gains if we wanted to or we could take a lot of losses, but we don't really think about the timing of what we do at all except to the relation of the intrinsic value of what we are buying. We do not make an earnings forecast. On March 31, we have over \$90 billion of net unrealized gains. We have a very, very slight preference this year, if everything else were equal. It's true any year, but a little more so this year, we'd rather take losses than gains because of the tax effect if two securities were equally valued. We are taxed on gains at 35% which means we also get the tax benefit of 35% of any losses we take. I would say there's some chance of that rate being lower meaning that losses would have less tax value to us after this year than next year. That's not a big deal. It would be a very slight preference, and it may get to be more of a factor in deferring any gains and perhaps accelerating any losses as the year gets closer to Dec 31st, assuming there were to be a Tax Act that had the effect of reducing the earnings.

In the first quarter, insurance underwriting was the swing factor – there's a lot more about this in our 10-Q that you can look up on the Internet, if you're seriously interested in evaluating our earnings or businesses, because the summary report does not really get to the main points of evaluation. I would just mention two factors with the insurance situation which I love - in the first four months, Geico had a net gain of 700,000 policyholders, and that's the highest number that I can remember. Last year I believe that figure was 300,000. This has been a wonderful period for us at Geico. Several of our major competitors decided – and they publicly stated this and one reiterated this the other day – they intentionally cut back on new business because new business carries with it a significant loss in the first year. There's costs of acquiring a new business plus the loss ratio, strangely enough, on first year business tends to run almost 10 points higher than on renewal business. When you add a lot of new business, you will lose money on that portion of the business that first year. We wrote a lot of new business. At least two of our competitors announced they were lightening up for awhile on new business because they did not want to pay

the penalty of the first year loss. That's made to order for us. We just put our foot to the floor and tried to write as much good business as we can. There are costs to that.

An important event in the first quarter is that we increased our float. On the slide, it shows a year over year increase of \$16 billion – \$14 billion of that came in the first quarter of the year. We had a \$14 billion increase in float. For some years I've been telling you it's going to be hard to increase the float at all. It is nice to have \$14 billion or more which is one reason if you look at our 10-Q, you will see that the cash equivalent including Treasury bills has come to well over \$90 billion. I feel very good about the first quarter even though our operating earnings were down a little bit. One quarter means nothing over time. What really counts is whether we are building value of the businesses we own. I'm always interested in the current figures, but I'm always dreaming about the future figures.

JACK BOGLE

There's one more person I'd like to introduce to you today, and I understood he was coming, and I believe he made it today – Jack Bogle who I talked about in the annual report. Jack Bogle has done more for the American investor than any man in the country. Jack Bogle many years ago founded index funds, and he wasn't the only one talking about an index fund. It wouldn't have happened without him. Paul Samuelson talked about it. Ben Graham even talked about it. The truth is it was not in the interest of the investment industry of Wall Street – it was not in their interest to have the development of the index fund because it brought down fees dramatically. As we've talked about and other people have commented that index funds overall have delivered for shareholders results that have been better than Wall Street professionals. Part of the reason for that is it has brought down the costs very significantly. When Jack started, very few people and Wall Street did not applaud him. He was the subject of some derision and a lot of attacks. Now we're talking trillions when we get into index funds and a few basis points when we talk about investment fees in the case of index funds, and I estimate that Jack, at a minimum, has left in the pockets of investors, without hurting them at all in terms of performance, he's put tens and tens of billions into their pockets. Those numbers will be hundreds and hundreds of billions over time. It's Jack's 88th birthday on Monday. Happy birthday and thank you on behalf of American investors.

I've got great news for you. In only two years, you will be eligible for an executive position at Berkshire. Hang in there, buddy.

We have a panel of expert journalists on this side, expert analysts on that side and expert shareholders in the middle. We will rotate starting with the analysts. We will do this through the afternoon. After we get through 54 questions, then we will go strictly to the audience. Let's start off with Carol Loomis of *Fortune* magazine.

WELLS FARGO

Q. Wells Fargo is Berkshire's largest holding. In the wake of the sales practices scandal, harsh findings noted that a major part of the company's problem were due to its decentralized structure which gave too much autonomy to the bank's leadership. How do you satisfy yourself Berkshire is not subject to the same risk?

Warren Buffett: We at Berkshire probably – we certainly operate on a more decentralized plan than any company remotely our size. We count very heavily on principles of behavior rather than rules. That's one reason at every annual meeting you see the Salomon clip in the movie. That's why I write very few communiques to our managers. I send them one once every two years that basically says that we've got all the money we need. We'd like to have more, but it's not a necessity. We don't have one ounce more of reputation than we need, and that our reputation at Berkshire is in their hands. Charlie and I believe if you establish the right sort of culture, and that culture to some extent self-selects who you hire as directors and managers, that you will get better results that way in terms of behavior than a thousand-page guidebook. You're going to have problems regardless. We have 367,000 employees. You have a town with 367,000 households, which is what the Omaha metropolitan area is, people are doing something wrong as we talk here today. The real question is whether the managers are thinking about finding and correcting any bad behavior, and whether if they fail in that, whether the message gets to Omaha and whether we do something about it.

At Wells Fargo there were three very significant mistakes. There was one that dwarfs all the others. You're going to have incentive systems at almost any business. There's nothing wrong with incentive systems. You have to be very careful about what you incentivize. You can't incentivize bad behavior. If so, you better have a system for recognizing it. Clearly, at Wells Fargo there was an incentive system built around the idea of cross-selling a number of services per customer, and the company in every quarterly investor presentation highlighted how many services per customer. It was the focus of the organization – a major focus - and undoubtedly people got paid and promoted based on that number, at least partly based on that number. It turned out that was incentivizing the wrong kind of behavior.

We've made mistakes. Any company is going to make mistakes in designing a system. You're going to find out about it at some point. I will get to how we find out about it. I don't know all of the facts of how the information got passed up the line at Wells Fargo. At some point if there's a major problem, the CEO will get wind of it. At that moment, that's the key to everything because the CEO has to act. That Salomon situation that you saw happened because on -I think April 28, the CEO of Salomon, the President of Salomon, the general counsel of Salomon, sat in a room, and they had described to them by a fellow named John Meriwether some terrible practice that was being conducted by a fellow named Paul Mozer who worked for them. Paul Mozer was flimflaming the US Treasury, which is a very dumb thing to do. He was doing it partly out of spite. He didn't like the Treasury, and they didn't like him. He put in phony bids for US Treasuries and all of that.

On roughly April 28, the CEO and all these people knew they had something that had gone very wrong, and they had to report it to the Federal Reserve Bank in New York. The CEO said he would do it, and then he didn't do it, and he undoubtedly put it off just because it was an unpleasant thing to do. On May 15, another Treasury auction was held, and Paul Mozer put in a bunch of phony bids again. At this point, it's all over because top management knew that the pyromaniac had lit another fire, and he lit it after they had been warned he was a pyromaniac. It all went downhill from there. Bad behavior has to stop when the CEO learns about it.

Then they made a third mistake - again, it pales in comparison to the second mistake. They made the third mistake when they totally underestimated the impact of what they had done once it became uncovered. There was a \$185 million penalty. In the banking business, people get fined billions and billions for mortgage practices and all kinds of things. The total fines, \$30 or \$40 billion, whatever the number would be. They measured the seriousness of the problem by the

dimensions of the fine – they felt a \$185 million fine signaled a less offensive practice than something that involved \$2 billion, and they were totally wrong on that.

The main problem is they didn't act when they learned about it. It's bad enough having a bad system, but they didn't act.

At Berkshire, the main source of information for me about anything that's being done wrong at a subsidiary is the hotline. We get 4,000 or so communications on the hotline a year, and most of them are frivolous-the guy next to me has bad breath or something like that. There are a few serious ones, and our internal audit team looks at them. A lot of them come in anonymous, probably most of them, some of them Becky (the internal auditor) refers back to the companies, probably most of them, but anything that looks serious, I will hear about that. That has led to action more than once. We spend real money investigating some of those. It has uncovered certain practices that we would not at all condone at the parent company. It's a good system. I don't think it's perfect. I'm sure they have an internal audit and hotline at Wells Fargo. I don't know the facts, but I would bet a lot of communications came in on that. I don't know who did what at any given time. It was a huge, huge, huge error if they were getting – and I'm sure they were - some communications, and they ignored them or sent them back to somebody down below. Charlie, what are your thoughts on it?

Charlie Munger: Put me down as skeptical when some law firm thinks they know how to fix something like this. If you're in a business, where you have a whole lot of people, it's very likely to cause a lot of misbehavior. Of course, you have a compliance department. Every stock brokerage firm has a huge compliance department. If we had one, we would have a big compliance department, also, wouldn't we, Warren?

Warren Buffett: Absolutely.

Charlie Munger: It doesn't mean everyone should solve their problems by having more compliance. We've had less trouble over the years by being careful of whom we picked to have power and having a culture of trust. I think we have less trouble, not more.

Warren Buffett: But we will have trouble from time to time.

Charlie Munger: Of course, we will be blindsided some day.

Warren Buffett: Charlie says an ounce of prevention - when Ben Franklin, whom he worships, said an ounce of prevention is worth a pound of cure, he understated it. An ounce of prevention is worth more than a pound of cure. I'd say a pound of cure promptly applied is worth a ton of cure that's delayed. Problems don't go away. Salomon's John Gutfreund said that problem - originally he called it a traffic ticket. It almost brought down the business. Some other CEO described a problem he encountered as a foot fault. It resulted in incredible damage to the institution. You have to act promptly.

Frankly, I don't know any better system than hotlines and anonymous letters to me. I've gotten three or four of them probably in the last six or seven years that resulted in major changes. Very occasionally, they are signed. They are almost always anonymous. It wouldn't make any difference because there will be no retribution against anybody obviously if they call our attention to something that is going wrong. I'm telling you as we sit here, someone is probably doing something wrong at Berkshire, and usually it's very limited, maybe stealing small amounts of

money or something like that. When it gets to some sales practice like was taking place at Wells Fargo, you can see the kind of damage it would do.

DRIVERLESS VEHICLES

Q. You addressed the risk of driverless cars to Geico's business. Is autonomous technology more of an opportunity or more of a threat to Burlington Northern Santa Fe?

Warren Buffett: I'd say that driverless trucks are a lot more of a threat than an opportunity to Burlington Northern, and I'd say if driverless cars became pervasive, it would only be because they were safer, and that would mean that the overall economic cost of auto-related losses had gone down and that would drive down the premium income of Geico. Autonomous vehicles widespread would hurt us. If they spread to trucks, they would hurt our auto insurance business. My personal view is they will certainly come - I think they may be a long way off. That will depend on experience in the first early months of the introduction, other than test situations. If they make the world safer, it's going to be a very good thing, but it won't be a good thing for auto insurers. There tends to be driver shortages in the truck business now. It obviously improves their position versus the railroad.

Charlie Munger: I think that's perfectly clear.

Warren Buffett: Finally, approval after all of these years.

SWEET SPOT FOR INVESTING

Q. In the HBO documentary, Warren Buffett, you had a great analogy comparing investing to baseball. Ted Williams knew his sweet spot was a pitch right down the middle. What attributes make a company a pitch in your sweet spot that you will invest in?

Warren Buffett: I'm not sure I can define it in exactly the terms you would like. We sort of know it when we see it. It would tend to be a business, that for one reason or another, we can look out 5, 10 or 20 years and decide that the competitive advantage that it had at the present would last over that period, and it would have a trusted manager that would not only fit into the Berkshire culture but was eager to join the Berkshire culture, and then it would be a matter of price. When we buy a business, essentially we are laying out a lot of money now based on what we think that business would deliver over a period of time. The higher certainty in which we make that prediction, the better we feel about it.

The first outstanding business we bought, which was kind of a watershed event, was See's Candies, a relatively small company. When we looked at See's Candies, in 1972, we asked would people still want to be eating and giving away that candy in preference to other candy. We paid \$25 million for it, net of cash, and it was earning about \$4 million pre-tax then. We took \$2 billion or something like that out of it since. We felt that people would not be buying necessarily a lower-priced candy. It doesn't work very well if you go to your wife or girlfriend on Valentine's Day - I hope they're the same person - and say, here's a box of candy, honey. I took the low bid. It loses a little as you go through that speech. And we made a judgment about See's Candies, it would be special - probably not in the year 2017- but we thought it would be special in 1982, 1992, and fortunately we were right on it. We are looking for more See's Candies, only a lot bigger.

Charlie Munger: It's also true we were young and ignorant then.

Warren Buffett: Now we are old and ignorant.

Charlie Munger: It would have been very wise to buy See's Candies at a slightly higher price. If they had asked it, we wouldn't have done it. We've gotten a lot smarter.

Warren Buffett: If it were \$5 million more, I wouldn't have bought it. Charlie would have been willing to buy it. Fortunately, we didn't get to the point where we had to make the decision that way. He would have pushed forward when I probably would have faded. The seller was the grandson - Larry See's brother, he was not interested in the business, but he almost changed his mind. He was more interested in girls and grapes. He did change his mind about selling. I wasn't there, but Charlie went and gave an hour talk on the merits of girls and grapes over owning a candy company. And the fellow sold to us. I call Charlie out on emergencies like that.

Charlie Munger: We were very lucky early to buy horrible businesses because they were real cheap. They gave us a lot of experience trying to fix unfixable businesses as they headed downward toward doom. We were very good at avoiding it thereafter. I would argue our early stupidity helped us.

Warren Buffett: We learned we could not make a silk purse out of a sow's ear.

Charlie Munger: You have to have your nose rubbed in it to really understand it.

REVIEWING STOCK INVESTMENTS

Q. Given issues at Wells Fargo (sales scandal), American Express (loss of business with Costco), United Airlines (customer service) and Coca-Cola (slowing soda sales), how much time is spent reviewing Berkshire stock investments?

Warren Buffett: Those are very large holdings. American Express and Wells Fargo, you are getting up well into the high tens of billions of dollars. Those are businesses that we like very much – they have different characteristics. United Airlines, we are the largest holder of the four largest airlines, but all businesses have problems and some of them have very big pluses. You mentioned American Express. If you read their first quarter report, they talk about their platinum card, it is doing very well. There's competition in all of these businesses. We didn't buy them with the idea that they would never have problems or never have competition. We bought them because we thought they had very strong hands. We liked their position. We do look to see where they have durable competitive advantages. If you've got a very good business, you will have plenty of competitors who will try to take it away from you. Then you make a judgment as to the ability of your particular company and product and management to ward off the competitors. They won't go away. I'm not going to get into the specific names. Those companies are very well positioned. If you have a wonderful business, even if it's a small one like See's Candies, you basically have an economic castle. In capitalism, people are going to try to take away that castle from you. You want a moat around it protecting it in various ways, and you want a knight in the castle that's pretty darn good at warding off marauders. There will be marauders that will never go away. Coca Cola was established in 1886, American Express was started in 1851 or 1852, Wells Fargo, I don't know what year they started -- American Express was started by Wells Fargo as well. These companies had lots of challenges over the decades. Our insurance business had challenges, but we have leaders like Tony Nicely and Ajit Jain, who has added tens of billions of dollars of value to Berkshire. There will always be competition in insurance. There are various

things to do to ward off the marauders. The specific question was how much time is spent reviewing our investments? I do it every day.

Charlie Munger: I don't think I have anything to add to that either.

Warren Buffett: We will cut his salary if he doesn't participate.

AIG RETROACTIVE REINSURANCE DEAL

Q. Based on AIG's track record, will the recent deal be profitable to Berkshire?

Warren Buffett: At the time we do every deal, I think it's smart. The deal might be unfamiliar to many people –AIG transferred to us a \$20 billion liability. We got paid \$10.2 billion in an upfront premium for that. Ajit Jain, who has made a lot more money for you than I have - he evaluates that sort of transaction. We came to the conclusion that we think we will do well by getting \$10.2 billion today with a maximum payout of \$20 billion – between now and judgment day on this large piece of business. AIG had very good reasons for doing this. Reserves had been under criticism, and it put to bed the question of whether they were underreserved on that business – and we hit on the \$10.2 billion. The question is how fast we pay it out. Ajit does 99% of the thinking on that. I do 1%. We project out what we think will happen, and we know whatever our projection is that we will be wrong. We have done a fair number of these deals, but this is the largest. We try to be conservative. A deal that was formed out of Lloyds of London some years ago, we've been wrong on one transaction that involved something over \$1 billion in premium, clearly wrong, and there are a couple of others that may or may not work out, depending what you assume we've earned on the funds, but they're okay. Overall, we've done okay on this business. It's less okay when we are sitting around with \$90 billion of cash. The incremental \$10.2 billion we took in during the first quarter is earning us peanuts at the moment. We do have to assume we will find uses for the money to have the deal work out. The money will be with us quite a while. I think our calculations are on the conservative side. They are not the identical calculations that AIG makes. I think it was quite a good transaction from AIG's standpoint in taking a \$20 billion liability off their balance sheet. I think they satisfied the investing community.

Charlie Munger: I think it's intrinsically a dangerous type of activity, which makes it an interesting transaction. I don't think there are any two people in the world that are better at this kind of transaction than Ajit and Warren. Nobody else has had the experience we've had. Get me in a lot more of those businesses, I will accept a little extra worry.

Warren Buffett: We were actually the only insurance operation in the world who would write that size of a contract and where it would be satisfactory to the other party. When someone hands you \$10.2 billion dollars and says I'm counting on you to pay \$20 billion back, even if it's 50 years from now, there's very few people that they want to hand \$10.2 billion to, so there's limited people on the other side.

Charlie Munger: By very few, he means one.

FAVORITE DEAL

Q. Mr. Munger, in your career and business dealings, which one sticks out in your mind as your favorite?

Charlie Munger: I don't think I've got a favorite. The one that probably did us the most good as a learning experience was See's Candies. The power of the brand, the unending flow of ever increasing money with no capital. I'm not sure we would have bought Coca-Cola if we didn't buy See's. I think a life properly lived is just to learn, learn, learn all the time. I think Berkshire has gained enormously in their investment decisions by learning through a long period. Every time you appoint a person who has never had big capital allocation experience, it's like rolling the dice. We are better off because we've done it for so long. But the decisions blend. The one feature that comes through is the continuous learning. If we had not kept learning, you wouldn't even be here. You would be alive probably, but not here.

Warren Buffett: There's nothing like the pain of being in a lousy business to make you appreciate a good one.

Charlie Munger: I have a friend that says the first rule of fishing is to fish where the fish are. The second rule of fishing is to never forget the first rule. We've gotten good at fishing where the fish are.

Warren Buffett: That's only metaphorically.

Charlie Munger: There are too many other boats in the damn water, but the fish are still there.

Warren Buffett: We bought a department store in Baltimore in 1966 – there's really nothing like having the experience of trying to decide whether you will put a new store in an area that hasn't developed and where it won't support it, but your competitor may move there first. Then you have the decision of jumping in. Now you have two stores where even one store isn't quite justified. How to play those business games, you learn a lot by trying. What you really learn is which ones to avoid. If you stay out of a bunch of terrible businesses, you are off to a great start. We've tried them all.

TECHNOLOGY COMPANIES

Q –Do you view IBM and Apple differently?

Warren Buffett: I do view them differently. When I started buying IBM six years ago, I thought it would do better in the six years that have elapsed than it has. I think Apple is much more of a consumer products business. In terms of sort of analyzing moats around it and consumer behavior, it's obviously a product with all kinds of tech built into it. In terms of laying out what their prospective customers will do in the future as opposed to IBM's, it's a different sort of analysis. That doesn't mean it's correct. They are two different types of decisions. I was wrong on the first one. We will find out whether or not I am right on the second. I do not regard them as apples and apples, and I don't quite regard them as apples and oranges. It's somewhat in between on that.

Charlie Munger: We avoided the tech stocks because we felt we had no advantage there and other people did. I think it's a good idea not to play where the other people are better. If you ask me in retrospect what was our worst mistake in the tech field, I think we weren't smart enough to figure out Google. Those ads worked so much better in the early days than anything else. I'd say we failed you there. We were smart enough to do it and didn't do it. We knew that.

Warren Buffett: We were their customer very early on with Geico – these figures are out of date, but as I remember, we were paying \$10 or \$11 a click. Any time you are paying somebody 10 or 11

bucks to punch a little thing, where you have no costs at all, that's a good business, unless someone will take it away from you. We were close up seeing the impact of that. Incidentally, if you don't have anything to do in your hotel rooms tonight, keep punching Progressive. Don't really do that. The thought just happened to cross my mind. I think for Lasik surgery, I think the figures were 60 or 70 bucks a click. No costs. The guys that designed the Google prospectus, they came to see me – they modeled it a little bit after Berkshire's owner manual. I had plenty of ways to ask questions to educate myself. I blew it.

Charlie Munger: We blew Wal-Mart, too. It was a total cinch. We were smart enough to figure that out and didn't. Our worst mistakes have been mistakes of omissions.

Warren Buffett: Execution is what counts. I could be making two mistakes. It's harder to predict in my view the winners in various tech industries or how much price competition will enter into something like cloud services. It's really remarkable where one person has built an extraordinary economic machine in two pretty different industries almost simultaneously –

Charlie Munger: From a standing start of zero.

Warren Buffett: From a standing start of zero – with competitors with lots of capital - to do it with retailing and to do it with the cloud, like Jeff Bezos, the CEO of Amazon, has done. The people like the Mellon's invested in a lot of different industries, but Bezos has been in effect the CEO simultaneously of two businesses starting from scratch. Andy Grove used to say think about if you had a silver bullet, and you could shoot it and get rid of one of your competitors, who would it be? I think both in the cloud and retail, there would be a lot of people who would aim the silver bullet at Jeff. He played his hand as well as anyone possibly could. It's a remarkable business achievement, creating two businesses feared by competitors. He has been involved actually in the execution, not just in bankrolling it.

Charlie Munger: We are sort of like the Mellon's, old-fashioned people who have done all right by bankrolling people we like. Jeff Bezos is a different species.

Warren Buffett: And we missed it entirely. We never owned a share of Amazon.

AIRLINES

Q. You avoided investing in airlines in the past because of low switching costs, rising fuel prices, high price competition and limited buying power. After consolidation, are airlines different enough this time around? How do the airline competitive advantages compare to railroads?

Warren Buffett: The decision, with respect to our \$10 billion investment in four airlines, has no connection with getting involved in the railroad business. You can classify both of them as transportation businesses. There's no more connection than the fact we own Geico or any other business. You couldn't pick a tougher industry. Wilbur should have shot Orville Wright down. You can go to the Internet and type in airlines and bankrupt, and you will see 100 airlines, in that general range, that have gone bankrupt in the last few decades. Charlie and I were directors of US Air. It was one of the dumbest things I've ever done.

Charlie Munger: You made a lot of money on it.

Warren Buffett: We made a lot of money out of it because there was a brief period where people got all enthused about US Air. I was lucky. After we left as directors and sold our position, US Air

managed to go bankrupt twice in the subsequent period. You named a number of factors that make for terrible economics. It's a fiercely competitive industry – the question is whether it's a suicidal industry - which it used to be. When you get virtually every one of the major carriers and dozens and dozens of minor carriers going bankrupt, maybe you're in the wrong industry. It has been operating for sometime now at 80% or better of capacity, being available seat miles. You can see what deliveries are going to be. I think it's fair to say they will operate at higher degrees of capacity over the next 5 to 10 years than historical rates, which caused all of them to go broke. Now the question is even when they are doing it in the 80s, whether they will do suicidal things in terms of pricing remains to be seen. They actually at present are earning quite high returns on invested capital – higher than even Fed Ex or UPS. If you're running one of the airlines, and the other guy cuts his prices, and you cut your prices, there's more flexibility to lower your prices when fuel prices go down. It's no cinch that the industry will have more pricing sensibility in the next 10 years than they had in the last 100 years, but the conditions have improved. They have more labor stability than they had before -- they have been through bankruptcy. It looks like they will have a shortage of pilots to some degree. But investing in the airlines is not like buying See's Candies.

Charlie Munger: No, but the investment world has gotten tougher with more competition. We picked up a lot of low-hanging fruit in the old days where we had huge margins of safety, and it was very easy. Now we operate with a less advantageous general climate, and maybe we have small statistical advantages. In the old days, it was like shooting fish in a barrel. It's OK if it gets a little harder after we are filthy rich.

Warren Buffett: Charlie is a little more philosophical than I am on that point.

Charlie Munger: I can't bring back the low-hanging fruit - I have to keep reaching to the higher branches.

Warren Buffett: I think the odds are very high that there are more revenue passenger miles five years or ten years from now. If the airline companies are only worth five or ten years from now what they are worth now in terms of equity, we will get a reasonable rate of return. If the company is worth the same amount and there are fewer shares of stock outstanding, over time we make decent money. All four of the major airlines are repurchasing their shares.

Charlie Munger: You have to remember the railroads were a terrible business for decades and decades, and then they got good.

Warren Buffett: I like the position. Obviously, by buying all four, it's very hard to distinguish who will do the best. I think the odds are quite high, it will be a higher number. There will be low-cost people that will come in, the Spirits of the world, Jet Blue, but my guess is all four of the companies will have higher revenue and fewer shares outstanding by a significant margin. Even if they are worth just what they are worth today, we could make a fair amount of money but it is no cinch by a long shot.

COCA-COLA

Q – After a long speech, the question revolved around owning Coca-Cola shares and its alleged destruction of the environment and shameless exploitation of workers.

Charlie Munger: That was more of a speech than a question.

Warren Buffett: Yes. I don't think that quote you had earlier was right. The dollar bill should say in the Federal Reserve we trust, because they print the money. To my knowledge, I've never said anything like you originally said. I've been eating things I like to eat all my life. Coca-Cola, that's 12 ounces, I drink about five a day. It has about 1.2 ounces of sugar in it. People get their sugar from all kinds of things - I happen to believe that I like to get 1.2 ounces from this, and it's enjoyable. Since 1886, people have found it pleasant. If you pick every meal, in terms of what somebody in some recent publication has told you is the very best for you, I say, go to it. If you told me that I would live one year longer if I'd eat nothing but broccoli and asparagus, or all my life I'd eat everything I enjoyed eating including chocolate sundaes and Coca-Cola, steak and hash browns, I'd rather eat the way I enjoy eating my whole life than eat some other way and live another year. I do think that choice should be mine. If someone decides sugar is harmful, maybe encourage the government to ban sugar. Sugar in Coca-Cola is not any different than putting sugar on my Grape-Nuts in the morning. Coca-Cola has been a very positive factor in America and the world for a long, long time. I really don't want anybody telling me I can't drink it.

Charlie Munger: I solved my Coca-Cola problem by drinking Diet Coke. I've had breakfast before where he has Coca-Cola and nuts.

Warren Buffett: It's pretty damn good, too.

Charlie Munger: If you keep doing that, Warren, you may not make 100.

Warren Buffett: I think there's something in longevity in feeling happy about your life.

Charlie Munger: Absolutely.

COMPOUNDING INTRINSIC VALUE

Q. At what rate has Berkshire compounded intrinsic value and at what rate can intrinsic value be compounded in the future?

Warren Buffett: Intrinsic value can only be calculated in retrospect, but the true definition would be the cash to be generated between now and judgment day discounted at an interest rate that seems appropriate at the time. That's varied enormously over a 30 or 40-year period. If you pick out 10 years, and you're back to May of 2007, we had some unpleasant things coming up. I'd say we've probably compounded intrinsic value about 10% annually since then. I think that's tough to achieve - almost impossible to achieve if we continue in this low interest rate environment. If you ask me to give the answer to the question - if I could only pick one statistic to ask you about the future before I gave the answer, I would not ask you about GDP growth or who was going to be president, I'd ask you what the interest rate is going to be over the next ten or twenty years on average. If you assume our present interest rate structure is likely to be the average, I would say it would be very difficult to get the 10%. If I were to pick for the whole range of probabilities on interest rates, I would say that that rate might be doable. If you'd say we can't continue these low interest rates for a long time, I'd ask you to look at Japan 25 years ago. We couldn't see how their low interest rates could be sustained. We are still looking at the same thing - I don't think it's easy to predict the course of interest rates at all. Unfortunately, predicting interest rates is embedded in giving a good answer to you. I'd say the chances of getting a terrible result in Berkshire are about as low as anything you could find. Chances of getting a sensational rate are also about as low as anything you could find. My best guess would be in the 10% range, but that assumes

somewhat higher interest rates, not dramatically, but somewhat higher interest rates in the next 10 or 20 years than we experienced in the last seven years.

Charlie Munger: The future with our present size in terms of percentage rates of return is going to be less glorious than in the past. We keep saying that and now we are proving it.

Warren Buffett: Do you want to end on that note, Charlie?

Charlie Munger: I think we have a collection of businesses that on average has better investment values than say the S&P 500 average. I don't think you shareholders have a terrible problem.

Warren Buffett: We do have more of a shareholder orientation than the S&P 500 as a whole. This company has a culture where decisions are made as a private owner would make them. That's a luxury we have that many companies don't have. One of the questions I ask the CEO of every public company that I meet: "What would you be doing differently if you owned it all yourself?" The answer is usually this, that and a couple of other things. If he would ask us, the answer is, we are doing exactly what we would be doing if we owned all the stock ourselves.

Charlie Munger: I think we have one other advantage. A lot of other people are trying to be brilliant. We are just trying to stay rational. It's a big advantage. Trying to be brilliant is dangerous, particularly when you are gambling.

LOWER TAX RATES

Q – If corporate tax rates are reduced, how much will go to Berkshire shareholders in terms of a higher book value?

Warren Buffett: In the case of our utility businesses, all benefit of lower tax rates go to customers. We are allowed a return on equity. Return on equity is computed on an after-tax basis. The utility commissions presumably give us higher rates to compensate for that, and if the taxes were lowered, they would say you are not entitled to make more money just because tax rates have been lowered - forget about the utility portion of deferred taxes. We have \$90 billion plus of deferred taxes on unrealized gains. If the rates were changed on those in either direction, our owners dollar for dollar would participate in that. All of our other businesses, the railroad you mentioned, to some extent, if tax rates are lowered, to different degrees in different industries, some of it almost certainly gets competed away and some of it would likely not be competed away. Economists can argue about that a lot, but I've seen it in action in a lot of cases. And we've had them over my lifetime. We had 52% corporate rates-- a lot of different numbers. Certainly a lower tax rate would be competed away. It's certain some of it would be to the benefit of the shareholder. It's very industry and company specific as to how that plays out.

Charlie Munger: Dollar for dollar, \$90 or \$95 billion of deferred taxes, if the rate would drop 10%, that \$9 and a half billion is real.

Warren Buffett: If it goes up, they can take it away from us, too.

Charlie Munger: I think it's true, if things go to hell in a handbasket and then get better later, we are likely to do better than others. We don't wish for that. We don't want our country to have to suffer through it. If that real adversity comes, we are likely to do better in the end. We are quite good at navigating through hard times.

Warren Buffett: There will be occasional hiccups in the American economy. It doesn't have much to do with who is president. It's the nature of market systems to occasionally go haywire in one direction or another. There's not a regular picture, but it is certain to happen from time to time, and we will probably have a fair amount of money. When the rest of the world is fearful, we know America is going to come out fine. We will not have any trouble psychologically acting at all. We will also never put the company in any kind of risk just because we will see a lot of opportunity. We will grab all that we can and not lose a day of sleep.

CADILLAC SALE

Q. You sold your Cadillac at a big profit?

Warren Buffett: Actually, I gave it to Girls, Inc., and they sold it. A very nice guy bought it for a hundred and some thousand dollars. Girls, Inc. got the money. He drove it away without any plates. He was driving back to New York and got picked up by the police in Illinois. He started giving the explanation that he had given the money to Girls, Inc. and was driving the car back, and he had his nice-looking family with him. The cops were quite skeptical. I had signed the dashboard for him as part of the deal. They looked at that, and said, "Did he give you any stock tips?" and then let him go. I can't recall ever selling a used car at a profit. I don't recall selling any personal possessions.

Charlie Munger: You don't have any personal possessions.

Warren Buffett: I have a house for sale. Anything you see with a figure attached.

INVESTING IN S&P 500 INDEX VS BERKSHIRE HATHAWAY

Q. Berkshire's business will do better than the S&P 500. Why have you advised to your wife to invest in index funds after you are gone? Charlie Munger has advised his family, "Don't be so dumb as to sell."

Warren Buffett: She won't be selling any Berkshire to buy the index fund. All of my Berkshire will go to charity— I don't even regard myself as owning Berkshire. It's committed. So far, 40% of my shares have already been distributed. For somebody who is not an investment professional, and I hope reasonably elderly by the time the estate gets settled, I think an index fund works best for her. What is the best investment, meaning one there would be less worry of any kind connected with it, and less people coming around and saying why don't you sell this? She will have more money than she needs. You want the money not to be a problem. If she holds the S&P 500, she will have all the money she can possibly use. She will have a little liquid money. If they close the stock exchange, she will still feel she has plenty of money. It doesn't make any difference whether the amount she gets doubles or triples. The object is not to maximize her investments. The important thing is that she never worries about money for the rest of her life.

I had an Aunt Katie here in Omaha. She worked very hard all her life. She lived in a house she paid \$8,000 for it. Because she was in Berkshire and she lived to 97, she ended up with a few hundred million dollars. She'd write me a letter every four or five months, and she'd say, "Dear Warren, am I going to run out of money?" I'd write her back and say, "Dear Katie, it's a good question because if you live 986 years, you're going to run out of money." Then four or five months later, she'd write me the same letter again. There's no way in the world if you've got plenty of money that it should become a minus in your life. There will be people, if you've got a lot of money that will come around with suggestions, sometimes well meaning, sometimes not. If

it was all in Berkshire, they would say if Warren was alive today, he would be telling you to do this. I don't think they – I think there's a chance they won't have peace of mind if they own one stock, and they've got neighbors and friends and relatives - sometimes well intentioned and sometimes not – telling them to do something else. It's a policy that will get a good result.

Charlie Munger: I want them to hold the Berkshire.

Warren Buffett: I want to hold the Berkshire, too.

Charlie Munger: I recognize the logic that the S&P 500 algorithm is very hard to beat. It's almost impossible for most people. I'm just more comfortable with the Berkshire.

Warren Buffett: It's the family business. I've seen too many people as they get older being susceptible.

Charlie Munger: If you're going to protect your heirs from the stupidity of others, you may have a good system. I'm not much interested in that subject.

UNILEVER

Q. You partnered with 3G to attempt to acquire Unilever. Is Berkshire likely to be in a partnership with 3G?

Warren Buffett: Kraft Heinz was a widely-owned company in which we and 3G acted as the control group. But as originally contemplated, we would have invested an additional \$15 billion and 3G would have invested an additional \$15 billion if a friendly agreement could have been reached with Unilever. If the independent directors of Kraft Heinz had approved the transaction, we would have invested \$15 billion. It would have required the approval of the independent directors as well. Kraft Heinz going forward wanted to be assured there would be enough equity capital in addition to the debt that would be incurred to make the deal work. Informally, we basically committed to the \$15 billion, and initially, we thought they would be at least possibly interested in such a deal. When we found out otherwise, we withdrew the offer.

SPECULATION VS VALUE INVESTING

Q. Can you advise us how to spread the value investing philosophy in China versus speculation?

Warren Buffett: In any system, Keynes wrote about this in 1936, I think it was chapter 12, a great chapter on investing, he talked about investment and speculation, and the propensity of people to speculate and the dangers of it. There's always the possibility – when speculation gets rampant and when you're getting what Charlie would call social proof that it's worked recently, people can get very excited about speculating in markets. We will have it from time to time in this market. There's nothing more agonizing than to see your neighbor who has an IQ 30 points lower than you do getting rich on stocks, whether it's Internet stocks or whatever. People succumb to it. Early on in the development of markets, there's some tendency for them to be more speculative than markets that have been around for a couple hundred of years. Markets have a casino characteristic and that has a lot of appeal when they see people are getting rich around them. Those that have not been through cycles before are more prone to speculate than people that have experienced the outcome of wild speculation. Basically in this country, Ben Graham was preaching investment in the book I read in 1949. That book continues to sell very well. The market gets hot, and the people on leverage are doing well. A lot of people will be attracted to not

only speculation, but what I would call gambling. That would be true in the United States. China, being a newer market and potentially when there's widespread participation, is likely to have some pretty extreme experiences in that respect.

Charlie Munger: I certainly agree with that. The Chinese will have more trouble. They are very bright people. Sure, they will be more speculative. It's a dumb idea. To the extent you're working on it, you're on the side of the angels, but lots of luck.

Warren Buffett: It will offer the value investors more opportunity actually if they can keep their wits about them if you have wild speculation. Charlie mentioned if we get into periods that are very tough, Berkshire will do reasonably well – we won't get fearful. Fear spreads like wildfire... you can't believe until you've seen a few examples of it. At the start of September 2008, you had 38 million people invested in money market funds with a trillion dollars in them. None of them were afraid the dollar wasn't going to be a dollar when they went to cash in their money market funds. Three weeks later, they were all terrified. \$175 billion flowed out of money market funds in three days. The way the public can react can be really extreme in markets. That actually offers opportunities to investors. People like action, and they like to gamble. If they think there's easy money to be made, you'll get a rush to it. It will be self-fulfilling, and it will create new converts until the day of reckoning comes. Keep preaching investing and if the market swings around a lot, you'll keep adding a few people here and there that the markets are there to be taken advantage of rather than to instruct you.

Charlie Munger: We've done a lot of preaching.

INVESTMENT TAX CREDITS

Q. What will be the impact of the proposed investment tax credit be on the railroad business?

Warren Buffett: We've had bonus depreciation and investment tax credits in this country. That does not enter into our calculation very much at the corporate level. Certainly it's true in wind projects and solar projects as they are dependent on the tax laws currently – there may come a time when they aren't, but they wouldn't have been done without some subsidization through the tax law. I'd say if you changed the depreciation schedule to double it, we are still going to do what we need to do at the railroad to make it safer and more efficient as if you had left it at one times depreciation. I doubt there would be any dramatic differences. I can't recall in all of the years I've ever sent anything out to our managers – let's do this because the tax law might be changed. At a given time, if the tax rates would be lower, you'd take losses and defer gains. That's why it's useful to get the tax committees – the Senate and House are working on something – it would be useful if the Chairmen would say, "If we do make any changes, we will likely use this effective date." The big tax driven item is in wind and solar. That's a specific policy. We won't make big changes overall as it's so speculative anyway in terms of what the tax law would be.

Charlie Munger: Nothing to add. We are not going to change anything at the railroad for some little tax jiggle.

BURLINGTON NORTHERN AND THE DEMISE OF COAL

Q. What is the impact on Burlington Northern, if we are facing the demise of coal?

Warren Buffett: The answer is coal is going to go down overtime. I don't think there's much question about that. The specifics of any given year relate very importantly to the price of natural

gas. The math is up a fair amount from last year because natural gas is at \$3.15 or \$3.20, and the utilities can produce electricity in many cases quite a bit cheaper with coal than with natural gas. Overtime, coal is essentially certain to decline as a percentage of the revenue of the railroad. You don't create generation plants overnight. If natural gas is cheap enough, you will see a big conversion back to natural gas. Coal will go down as a percentage of revenues significantly – certainly over ten years it will be quite significant. We are looking for other sources of growth than coal. If you're tied to coal, you've got problems.

Charlie Munger: Extremely long term, I think all the hydrocarbons will be used, including all the coal. I think in the end these hydrocarbons are a huge resource for humanity. I don't think we have a good substitute. I never minded saving them for the next generation. I don't like using them up very fast. I'm all over the whole road on this one. I think we will use every drop of the hydrocarbons sooner or later. It's very hard to predict. I'm not at all sure on this.

Warren Buffett: We will produce within a few years virtually as much electricity in Iowa from wind as our customers use, but the wind only blows about 35% of the time or something like that and sometimes it blows too hard. The storage – having it 24-hours a day, seven days a week- is a real problem even if you have the capability of producing a self-sufficient amount in Iowa. Our shipments of coal are up fairly substantially this year, but they were very low last year. In my mind, Charlie has a longer-term outlook on this, but in my mind, we are going to be shipping a whole lot less coal 10 or 20 years from now than we are now. I think there's some decent prospects in other long hauls - it's a pretty cheap way to move bulk commodities long distances, the rail business is. I think it's a good business, but the coal aspect of it is going to diminish.

CAPITAL-LIGHT BUSINESSES VS CAPITAL-INTENSIVE BUSINESSES

Q. Berkshire generates substantial cash flows. Are Berkshire shareholders better off if you continued to invest in capital-light businesses?

Warren Buffett: We'd love to find them. There's no question that buying a high return on assets, very light capital-intensive business that is going to grow, beats the hell out of buying something that requires a lot of capital to grow. And this varies from day to day – but I believe that probably the five largest American companies by market cap [Apple, Alphabet, Microsoft, Amazon, and Facebook], and some days we are in that group and some days we are not, but they have a market value over two and half trillion dollars. I don't know what the aggregate market cap of the US market is -but they are probably getting up close to 10% of the whole market cap of the US. If you take those five companies, essentially you could run them with no equity capital at all. None.

That is a very different world than when Andrew Carnegie was building a steel mill and getting very rich in the process or Rockefeller was building a refinery and buying tank cars. But generally speaking for a very long time in our capitalism, growing and earning large amounts of money required considerable reinvestment of capital and large amounts of equity capital. The railroad is a good example. That world has really changed. I don't think people quite appreciate the difference. You literally don't need any money to run the five companies that are collectively worth more than two and a half trillion dollars and who have outpaced any number of names that we are familiar with if you looked at the Fortune 500 list 30 or 40 years ago – whether it was Exxon or General Motors or you name it. We would love – there's no question that a business that doesn't take any capital and grows almost infinite returns and doesn't require equity capital is the ideal business. We own a few businesses that earn extraordinary returns on capital, but they don't grow. We still love them, but if they had yields that would grow, believe me, they would be

number one on our list. We aren't seeing those that we can buy. You're absolutely right, that's a far, far better way of laying out money than what we are able to do when buying capital-intensive businesses.

Charlie Munger: The capital-intensive companies of America at one time were wonderful investments. DuPont was sold at 20 times earnings. They kept building more complicated plants and hiring more PhDs, chemists, it looked like they owned the world. Now most chemical products are commoditized— it's a tough business being a big chemical producer. In comes all these other people like Apple and Google, and they are just on top of the world. The world has changed a lot, and the people who made the right decisions of getting into these new businesses that are so different from the old ones have done very well.

Warren Buffett: Andrew Mellon would be baffled by looking at the high-cap companies now, the idea that you could create hundred of billions of value essentially without assets. That is the world now. When Google can sell you something that Geico was paying 11 bucks every time somebody clicks something—that is a lot different than spending years finding the right size, developing, hiring minds to supply the steel plants, railroads to haul the iron to where the steel is produced in distribution points, all that sort of thing. Our world was built when we first looked at it— our capitalist system basically was built on tangible assets and reinvestment and that sort of thing and a lot of innovation and invention to go with it. This is so much better if you happen to be good at it— essentially to be able to build hundreds of billions of market value on intangible assets without really needing any capital. That is a different world than existed in the past. It's a world that is likely to continue. I don't think the trend in that direction is over by a long shot.

Charlie Munger: A lot of the people that are chasing that sort of thing very hard now in the venture capital field are losing a lot of money. It's a wonderful field, but not everybody is going to win big in it. A few will win big.

VALUE OF BERKSHIRE TO THE WORLD

Q. Apple provides the iPhone, Geico provides low-cost insurance and 3G provides value through cost-cutting. What is the value of Berkshire to the world as you delegate to the point of abdication?

Warren Buffett: I'm with him to the point to where he accurately describes delegation just short of abdication. I would argue that abdication actually in many cases will enable those businesses to be run better than they would if they were part of the S&P 500, or the target perhaps of activists or somebody that wants to get some kind of a jiggle in the short term. I think our abdication actually has some very positive value on the companies we own. You have to look at it company by company. We probably have 50 managers in attendance here. Actually, they are not going to say anything publicly on television. Get them off on a private corner and ask them whether they think their business can be run better with a management by abdication from Berkshire but also with all the capital strengths of Berkshire. Any project that makes sense can be funded in a moment without worrying whether the banks are still lending like in 2008 – or whether Wall Street would have bought it. I think our hands-off style can add significant value in many companies. We certainly don't add to value by calling them up and saying we developed a better system or can run Geico better than Tony or anything of the sort. But we have a very objective view about capital allocation. We can free managers up. I'd say that we might very well free up at least 20% of the time of a CEO in the normal public— otherwise who would have a public company - just in terms of meeting with analysts and the calls and dealing with banks and all kind of things that we

essentially relieve them of. They can spend all of their time figuring out the best way to run their business. I think we bring something to the party even if we are just sitting there with our feet up on the desk.

Charlie Munger: We are trying to be a good example to the world. I don't think we would be having these big shareholder meetings if there weren't a little bit of teaching ethos in Berkshire. I've watched it closely for a long time – I'd argue that's what we are trying to do is set a proper example, stay sane and be honest. I'm proud of Berkshire.

Warren Buffett: I'd say Geico is an extraordinarily well run company, and it would be extraordinarily well run if it were public. It has gone from two and half percent of the market to twelve percent, and part of the reason, a small part, is that when other – the real reason is Geico and Tony – but at least two of our big competitors said they wouldn't meet their profit objectives if they didn't lighten up their interest in new business 8 or 10 months ago. I think our business decision to step on the gas is a better business decision, but I think Geico as a public company would have more trouble making that decision than they do when they are part of Berkshire. We are thinking nothing but where Geico is going to be in five or ten years. We want new business costs to penalize our earnings in the short term, and other people have different pressures. They have a different constituency than Geico has with Berkshire and what Berkshire has with its shareholders. I think our system is superior. It's not because we work harder. Charlie and I don't do hardly anything.

STRUCTURED SETTLEMENTS

Q. Please talk about the interest rate of 4.1% used on structured settlement contracts.

Warren Buffett: These are structured settlements primarily. When somebody young has a terrible auto accident and – perhaps urged by the court or family members who really do have the interest of the injured party at heart – they may defer what could be a large sum settlement, maybe a million dollars or two million dollars, into periodic payments for the rest of the life of the injured party, and we issue those for other insurance companies. In fact, sometimes the court directs that Berkshire should be the one to issue those. You're talking about somebody's life 30 or 40 or 50 years from now. The court or the lawyer or the family make very sure whoever makes that promise is going to be around to keep it. Berkshire has a deferred position in that. We look for taking the longer maturity situations, we always have, and we have to make assumptions about mortality, and we have to decide at what interest rate we will do it. The 4.1% is a mix of a lot of contracts over a lot of years. If you take an average of 15 years or something, that's how we come up with that sort of a figure. We adjust for interest rates. When doing that, we are making an assumption that we are going to earn more money than is in the coffers of these structured settlements. We have six or seven billion dollars in this business now. We will keep doing them. Incidentally, probably a significant percentage of the six or seven billion, we are not yet paying anything. Somebody else may have the earlier payments. They are certainly weighted far out. It's a business that we will be in 10 or 20 years from now. We have some natural advantage because people trust us more than any other company to make those payments. The test is whether we over time earn a return above that we are paying to the injured party. That's a bet we are willing to make, but if interest rates continue to be low for a long time, assuming we kept the money in fixed instruments, we'd have some loss. We do make monthly payments to these people eventually. We have to keep track whether they are still alive or not because you cannot count on the relatives of somebody that is deceased that when the check is coming in every month to notify us

promptly that the person has become deceased. That number will go up over time. If interest rates stay where they are, that 4.1% will come up a little bit.

USG INVESTMENT

Q. In 2001, you made an initial investment in USG shortly before the company declared bankruptcy.

Charlie Munger: It was very cheap.

Warren Buffett: USG, overall, has been disappointing because the gypsum business has been disappointing. I may be wrong, but I think they went bankrupt twice. It's not been a brilliant investment. If gypsum prices were at levels that they were at some years in the past, it would have worked out a lot better.

Charlie Munger: It hasn't been terrible.

Warren Buffett: Gypsum has taken a real dive several times. Managements have been, not necessarily at USG, they've gotten more optimistic about future demand than they should have. It's a business where the potential supply has been significantly greater than demand in a lot of years. You've seen housing starts since 2008 and 2009 not come back to where people anticipated. Gypsum prices have moved up but not dramatically. It's not one of my great ideas. Charlie wasn't involved in that. It's no disaster though.

Charlie Munger: No, it isn't.

AJIT JAIN

Q. If Ajit were to retire, what would be the effect on insurance operations?

Warren Buffett: No one could possibly replace Ajit. We have a terrific operation in insurance outside of Ajit, and it's terrific-squared with Ajit. There are things only he can do, but there are a lot of things that are institutionalized in our insurance business where we've got extraordinarily able management. Ajit, for example, bought a company called Guard Insurance a few years ago based in Wilkes-Barre, PA. It is expanding like crazy in Wilkes-Barre. It has been a gem. Ajit oversees it. We have a terrific person running it. We bought Medical Protective some years ago. Tim Kenesey can run a terrific insurance company with or without Ajit, but he's smart enough to realize if he has somebody like Ajit who is willing to oversee it to a degree, that's great. Medical Protective has been a wonderful business. Look at the section in the annual report called other insurance companies, that's a wonderful insurance company. Geico is a terrific company. Ajit has made more money for Berkshire than I have probably. We still have what I would consider the world's best property casualty insurance operation, even without him, and with him, I don't think anybody comes close.

Charlie Munger: A few years ago, California made a little change in its workmen's compensation law. Ajit saw it instantly that it caused the underwriting results to change drastically. We went to 10% of the market which is big. He grabs a couple billion dollars at least out of the air. We don't have a lot of people like Ajit. It's hard to snap your fingers and grab a couple billion dollars out of the air.

Warren Buffett: (Warren snaps his fingers) Worker's comp, Guard has moved into that. We have a lot of terrific insurance managers. Peter Eastwood is one who is running a good business. And Ajit has found some of those. I've gotten lucky a few times. People don't even know we own these things. We have \$105 billion in insurance float. It is a good business when people pay you to hold and invest that money.

I've been handed something Kraft Heinz came out with a few weeks ago, I had three of these. It's good. It's a cheesecake arrangement with a topping. You create your own cheesecake for 170 calories. I can eat it while Charlie is talking. So you don't feel too guilty, there's – I don't mind having 500 or 600 calories for dessert. I will let someone else eat broccoli while I eat dessert. They brought 8,000 or 9,000 of these to the annual meeting. I will be disappointed if we don't run out.

SUCCESSION PLANNING

Q. Question on succession planning as there were fewer names mentioned in the annual report.

Warren Buffett: There has been no change in succession planning. We've never had more good managers than we have now.

Charlie Munger: I certainly agree with that. We don't seem to have a whole lot of 20-year olds.

Warren Buffett: Certainly not at the front table. We have an excellent group. That's why we can manage by abdication. If we had 50 people out there all wanting to run Berkshire, but they have the jobs they want in life. Tony Nicely loves running Geico. You go down the line, they have jobs they love. When I'm not around, they will get the nod.

SECTORS OF THE MARKET

Q. Where do you want to go fishing for the next five years?

Warren Buffett: Charlie and I really do not discuss sectors much or the macro environment. We are looking at all businesses all the time. It's a hobby. We are opportunistic investors and hope to get a call for acquisitions. We have a bunch of filters. We probably know within the first five minutes or less whether it's likely to happen. The first question we ask, "Can we really know enough about the business to make a good decision?" There's a few. We like businesses with moats around them. If it makes it through the first filter, there's a reasonable chance of doing a deal. We do love the companies where consumer behavior can be predicted further out. It's getting harder for us to anticipate. It's a tougher game now. We will look at returns on present capital and future capital. A lot of people give you signals, whether you're actually likely to have a satisfactory arrangement. We know what types of businesses we like, but we don't really say we will go after companies in this field or that field.

Charlie Munger: Some subsidiaries do bolt-on acquisitions. That's going on all the time. Of course, we like it. But I would say in the general field of buying whole companies, it has gotten very competitive. There's a huge industry, the people that used to do leveraged buyouts now call it private equity. It's like a janitor calling himself the chief of engineering or something. They can finance practically anything. They can pay very high prices. It's very hard to buy a business.

There's a certain small group of people that don't want to sell to private equity. They love the business so much they don't want to just dress it up for resale.

Warren Buffett: We had a guy some years ago who came to see me. He was 61 at the time. He said, look, I've got all the money I can possibly need, but there's only one thing that worries me when I drive to work – actually, there's more than one guy that told me this - if something happens to me today, my wife is left with the business. I've seen cases where executives in the company try to buy them out cheap or sell to a competitor. I don't want to leave her with the business. I want to decide where it goes, but I want to keep running it. I thought about selling it to a competitor, but if I do, their CFO will become the CFO of the new company, and all these people who helped me build the business will get dumped. I will walk away with a ton of money. Some of them will lose their jobs. I don't want to do that. I can sell it to a leveraged buyout firm, they call themselves private equity. They will leverage it to the hilt and resell it. They are going to dress it up some. In the end, it's not going to be in the same place. It isn't because you're so special – it's just that there isn't anybody else. If you're ever proposing to a potential spouse, don't use that line, but that's what he told me. I took it well, and we made a deal. Logically, unless somebody has that attitude, we should lose in this market. You can borrow so much money so cheaply. We are looking at the money as pretty much all equity capital. We are not competitive with somebody that has a very significant portion of the purchase price, carrying debt, maybe averaging 4%.

Charlie Munger: He won't take the losses if it goes down. He gets part of the profit if it goes up.

Warren Buffett: His calculus is so different than ours. He has the money to make the deal. If all you care about is getting the highest price for your business, we are not a good call. We will get some calls in any event. We can offer something that is unusual. The person that sold us that business, and a couple of others, actually it's almost word for word what they say. They are all happy with the sale they made, very happy. They have lots and lots of money. They are doing what they love doing, which is still running the business. They know they made a decision that will leave their family and the people that work for them all of their lives in the best possible position. In their equation, they have done what is best, but that is not the equation of many people. When the disparity gets so wide between what a heavily debt-financed purchase will bring against an equity-type purchase, it gets to be tougher.

Charlie Munger: It's been tough for a long time, and we bought some good businesses.

SUCCESSOR COMPENSATION

Q. How should you compensate your successor, you had remarked about three years ago that you would tell us?

Warren Buffett: Unfortunately, at my age, I don't have to worry about things I said three years ago. This guy, obviously much younger, remembers. I will accept his word that I said that. A couple of possibilities. I don't want to get into details on them. I hope that we would have somebody that is already very rich which they should be; they've been working a long time and have that kind of ability, that's very rich, and really not motivated by whether they have 10 or 100 times the amount of money they and their family need; and they might perhaps want to set an example by engaging for something far lower than what their true market value is — that could or could not happen, but I think it would be terrific if it did. I can't blame anyone for wanting their market value. If they didn't elect to go in that direction, you would probably pay them a very modest amount, then have a substantial option which increased in value – or increased in strike

price annually based on the annual increase in retained earnings. Nobody does this hardly, but the Washington Post Company did it a little bit, but it would increase assuming there were substantial retained earnings every year. It's very easy to design that. Private companies, they do design it that way. They don't want to do it in public companies because they get more money the other way. Shares should have to be held for a couple years after retirement. They would then really get the result over time that the majority of stockholders would be able to get and not to be able to pick their points when they were able to exercise and sell a lot of stock. It's not hard to design a good compensation plan. It really depends on who you're dealing with in terms of actually how much they care about money and having money beyond what they can possibly use.

Charlie Munger: I think I've avoided all my life compensation consultants. I hardly can find the words to express my contempt.

Warren Buffett: If the Board hires a compensation consultant after I go, I will come back – mad, mad.

Charlie Munger: I think there's a lot of mumbo jumbo in this field. I don't see it going away.

Warren Buffett: It's going to get worse. Everybody looks at everyone else's proxy statements. The human relations department who work for the CEO comes in and suggests a consultant. What consultant is ever going to get another assignment if he says you should pay your CEO below – down in the fourth quartile because you're going to get fourth-quartile results? It isn't that the people are evil. The nature of the situation produces a result that is not consistent with how representatives of the ownership should behave.

Charlie Munger: It's even worse than that. Capitalism is the golden goose that we all live on. People generally get so they have contempt for it because they don't like the paid arrangements in the system. Your capitalism may not last as well. That's like killing the golden goose. I think the existing system has a lot wrong with it.

Warren Buffett: I think there is something that is coming in pretty soon. Companies will have to put in their proxy statement the CEO's pay compared to the average employee pay or something like that. It won't change a thing.

Charlie Munger: It won't get any headlines either. It will be tucked away.

Warren Buffett: It will cost us a lot of money. With 367,000 people employed around the world - we hope to get something that makes it somewhat simpler where we can use estimates to get the median income – or however the rules will read.

Charlie Munger: That's what consultants are for.

Warren Buffett: It's human nature that produces this. I write in this letter to the managers every two years that the only excuse I won't take on something is that everyone else is doing it. Of course, everyone else is doing it is exactly the rationale for why people did not want to count the cost of stock options as a cost. All these CEOs went to Washington, and they got the Senate to vote 88 to 9 to say stock options aren't a cost. A few years later it became so obvious that they finally put it in that it was a cost. It reminded me of Galileo or something.

Charlie Munger: Way worse.

Warren Buffett: I would hope, like I say, I'm not talking about the current successor, or anybody else, the successors down the line will have gotten very wealthy by the time they are running Berkshire - the incremental value of wealth gets very close to zero at some point. There's a chance to use it as a different sort of model, but I don't have any problem if a system is devised that recognizes retained earnings - I've never heard anyone talk about it on the 20 boards I've been on - if you and I were partners in a business, and we kept retaining earnings in the business, and I kept having the value of buying a portion of you out at a constant price, you'd say, this is idiocy but that's the way option systems are designed. Usually there's some correlation between what CEOs are paid and what boards are paid. If CEOs were getting paid at the rate that they got paid 50 years ago - adapted to present dollars - director pay would be lower - it's got all these built-in things to some extent.

Charlie Munger: No Berkshire director is in it for the money.

Warren Buffett: They own a lot of stock.

Charlie Munger: It's a very old-fashioned system.

Warren Buffett: I looked at one company the other day and seven of the directors had never ever bought a share of stock. There they are making decisions on who should be the CEO, how they should be paid and that sort of thing. They never felt like shelling out a dollar themselves. They've been given a lot of stock. What you want is to have a system that works well in spite of how human nature is going to drive it. We've done awfully well in that respect in this country. The American business has done very well for Americans generally but not every aspect of it is exactly what you want to teach your kids.

LOSS OF BNSF VOLUME

Q. With trucking more competitive and the widening of the Panama Canal, will there be a loss of volume for Burlington Northern?

Warren Buffett: Chicago has lots of problems. Think how the railroads developed. Chicago was the center, and they laid the rails, and the city grows up around the rails. Chicago can be a huge problem. Getting to intermodal, car loadings actually hit a peak in 2006. Here we are eleven years later. The investment of the five big class one railroads, if you look at the investment beyond depreciation, tens of billions of dollars, and we are carrying less freight. It's a good business. It has many advantages over truck in many respects. Their right of way system is subsidized to a much greater degree beyond the gas tax compared to the railroad industry. It has not been a growth business in physical volume in any great degree. It's likely to be a good business. I like the west better than the east. There will be some intermodal traffic that gets diverted to eastern ports. We have a terrific system in that respect. We will do well. I do think our fundamental position is terrific. I think we will earn decent returns on capital. That's the limit of it.

Charlie Munger: Nothing to add.

CAPITAL ALLOCATION ABILITIES

Q. Will bouncing ideas off one another on capital allocation continue long into the future?

Charlie Munger: It can't continue very long.

Warren Buffett: Don't get defeatish, Charlie.

Any successor that is put in at Berkshire - proven capital allocation abilities are certain to be upper most in the Board's mind, in the current case, in terms of my recommendation and Charlie's recommendation, for what happens after we are not around. Capital allocation is incredibly important at Berkshire. Right now we have \$280 or \$290 billion of shareholders' equity. If you take the next decade alone, nobody can make accurate predictions on it, but in the next ten years, if you take - appreciation right now is another \$7 billion a year, or something on that order. The next manager during the decade will have to allocate maybe \$400 billion or something like that. Ten years from now, Berkshire will be an aggregation of businesses where more money has been put in in that decade than everything that took place ahead of time - you need a very sensible capital allocator in the job of being CEO of Berkshire. We will have one. It would be a terrible mistake to have someone in this job where capital allocation will not be their main talent - it should be very close to their main talent. We have an advantage at Berkshire in that we do know how important that is. There is that focus on it. Many people get to the top through ability and sales, all different sides of business. They then have capital allocation sort of put in their hands. They may establish strategic thinking divisions and listen to investment bankers, but they better be able to do it themselves.

Charlie Munger: If they come from a different background and haven't done it...

Warren Buffett: It's like getting to Carnegie Hall by playing the violin. You then walk on stage and they hand you a piano. Berkshire would not do well if somebody was put in who had a lot of skills in other areas but really didn't have an ability for capital allocation. I call it a money mind. People can have 120 or 140 IQs, very similar scoring abilities in terms of intelligence tests. Some of them have minds that are good at one type of thing and some at others. I've known very bright people that do not have money minds, and they can make very unintelligent decisions. They can do all kind of other things that most mortals can't do, but it isn't the way their wiring works. I've known other people that are not that brilliant - they do fine on an SAT test - but they never made a dumb money decision in their life. We do want somebody - hopefully, they've got a lot of talents, but we certainly don't want somebody if they lack a money mind.

Charlie Munger: There's the option of buying in stock, which isn't like it's some hopeless problem. One way or another something intelligent will be done.

Warren Buffett: A money mind will recognize when it makes sense to buy a stock and when it doesn't. In fact, it's a pretty good test for some people in terms of managements of how they think about something in terms of buying stock. It's not a very complicated equation if you sort of think straight about that sort of a subject. Some people think that way and some don't, and they'd probably be miles better at something else, but they say some very silly things when you get to something that seems so clear as to when buying stock makes sense.

HEDGE FUND COMPENSATION

Q. Should investors pay financial helpers? You describe how valuable Charlie Munger is. Would you pay a 1% helper fee on assets to Charlie?

Warren Buffett: I've said in the annual report, I've known maybe a dozen people in my life, there are undoubtedly hundreds or thousands out there. I've known personally a dozen where I would have predicted or did predict that the person involved would do better than average in investing over a long period of time. Charlie is one of those people. Would I pay him? Sure. But would I take financial advisors as a group and pay them 1% with the idea that they will deliver results to me that were better than the S&P 500 by 1% and thereby let me break even as to what I could have done on my own? There's very few. It's not a good question to ask. If I'd pay Charlie 1%, that's like asking would I have paid \$100,000 to Babe Ruth to come over from the Red Sox to the Yankees? Sure! There wouldn't have been very many people that I would have paid in 1919 to come over to the Yankees. It's a fascinating situation. It's not that the advisors are going to do so terrible. You have an option available that doesn't cost you anything that is going to do better than they are in aggregate. If you hire an obstetrician, assuming you need one, they will do a better job at delivering the baby than the spouse or someone off the street. In all professions, there's value added by the professionals as a group compared to doing it yourself. In the investment world, it isn't true. In the active group, the people that are professionals in aggregate are not, cannot, do better than the aggregate of the people that just sit tight. If you say in the active group there's some person that's terrific, I will agree with you. The passive people can't all pick that person, and they wouldn't know how to identify them.

Charlie Munger: It's even worse than that. The expert who is really good – when he gets more and more money in, he suffers terrible performance problems. You'll find the person who has a long career at 2% and 20% of profits. If you analyze it net, all the people who lost money, because some of the early people had a good record, but more money coming in later, and they lose it. The investing world is a morass of wrong incentives, crazy reporting and a fair amount of delusion.

Warren Buffett: If you asked me whether those 12 people I picked would do better than the S&P working with a hundred billion dollars, I'd answer that probably none of them would. When they actually worked in practice, they dealt generally with pretty moderate sums. As their sums grew, their relative advantage diminished. The example I used in the report – the guy who made the bet with me and incidentally all kinds of people didn't make the bet with me. They knew better than to make the bet with me. There were at least a couple hundred underlying hedge funds. These guys were incented to pick the best funds, tons of money, a lot of money went to pay managers of what was subnormal performance over a long period of time. It's an interesting profession, when you have hundreds of thousands of people that are compensated based on something that in aggregate cannot be true – superior performance. It will continue. The best sales people will tend to attract the most money. It's such a big game. People will make huge sums of money – far beyond what they're going to make in medicine – you name it, repairing the country's infrastructure. You give the people the idea that you can do something magical for them. If you even have a billion dollar fund and get 2% of it for terrible performance, that's \$20 million dollars. In any other field it would just blow your mind. People get so used to it in the field of investment.

We have two guys in the office that are managing \$21 billion. We pay them a million dollars a year, plus the amount by which they beat the S&P – they have to actually do something to get contingent compensation which is much more reasonable than 20 percent. But how many hedge fund managers say I only want to get paid if I do something for you? Unless I actually deliver something beyond what you can get yourself, I don't want to get paid. It gets back to the line I used when I asked the guy, "How can you in good conscience charge 2% and 20%?" He said, "Because I can't get 3% and 30%." Charlie?

Charlie Munger: I think you've beaten up on them enough.

PRECISION CASTPARTS

Q. Please update us on the Precision Castparts acquisition.

Warren Buffett: We have actually made bolt-on acquisitions, and we will make more because we have an extraordinary manager. We have a terrific position in the aircraft field. There will be the chance for sensible acquisitions. We've already made two anyway. We will make more overtime. The amortization of intangibles is the only big purchase price adjustment, that's something over \$400 million a year non-deductible. In my mind, it's over \$400 million of earnings. I do not regard the economic goodwill of Precision Castparts being diminished at that rate annually. I've explained that in some degree. As a very long-term business— you can worry about 3D printing - you don't have to worry about aircrafts being manufactured. Aircraft deliveries can be fairly volatile. I don't think the long-term demand is anything I worry about. The question is whether anybody can do it better or cheaper or if 3D printing at least takes away part of the field. I feel very good about Precision Castparts. It's a very long-term business. The initiation of a new plane may be delayed or something. Take a look at the engine that's in the other adjoining room, in our exhibition hall. If you were putting that engine together, with a 20 or 25 year life, carrying hundreds of people, you would care about your supplier - not only in the quality of the work being done, but also if you were an engine manufacturer, or an aircraft manufacturer, you would care about the reliability of delivery. You don't want a plane or engine that's 99% complete while someone is dealing with the problem of faulty parts. Reliability is incredibly important. I don't think anyone has a better reputation than the company. I love the fact we bought Precision Castparts.

Charlie Munger: It's a very good business purchased for a fair price. This is no screaming bargain like the old days. For quality businesses, you pay up now a lot more than we used to.

Warren Buffett: You don't get a bargain price. The \$400 plus million goes on quite awhile. It's the way accounting works. I don't want to tell you about this one. Starting the first of next year, accounting is going to become a nightmare in terms of Berkshire and other companies because they're going to have us mark our equities to market like we were a Wall Street trading firm. Those changes in the value of Coca-Cola or American Express will run through the income statement every quarter or every day. It really will get confusing. It's our job to explain it when we report GAAP earnings, but GAAP earnings will become even more meaningless only looking at the bottom line.

Charlie Munger: That was not necessarily a good idea.

Warren Buffett: It's a terrible idea, but we will deal with it. It's my job to explain to what extent GAAP accounting is useful to you in evaluating Berkshire and a time when it actually distorts things. Accounting is not supposed to describe value. It's a terribly useful tool if understood. And so certainly, you can't blame the auditing profession for doing what they think is their job.

Charlie Munger: You can blame the auditing profession for that one. That was really stupid.

Warren Buffett: I agree with that actually. We will always give you the audit figures and then explain their shortcomings in either direction, or what you should use and probably ignore in looking at those numbers and using them to come to a judgment as to the value of your holdings. We want you to understand what you own. We try to cover the details that are really important in

that respect - but there are a million things you can talk about that are just of minor importance—the interpretations that we would regard as important in coming to an estimate of the value of the business. If they simply look at bottom line numbers, what could be silly this year will be absolutely ludicrous next year because of the new rule that comes into effect in 2018!

CHINA'S STOCK MARKET

Q. Can someone duplicate your record by investing in China's stock market?

Warren Buffett: Charlie, you're the expert on China.

Charlie Munger: It's like determining the order of precedence between a louse and a flea. I do think the Chinese stock market is cheaper than the American stock market, and I do think China has a bright future, but I also think there will be growing pains, of course. We have this opportunistic way of going through life. We don't have any particular rules about which market we are in or anything like that.

Warren Buffett: Charlie has delivered a headline anyway now – “Munger predicts the China market will outperform the US.”

3G CAPITAL'S EXTREME COST CUTTING

Q. Berkshire partners with 3G Capital on deals. What do you think of their extreme cost cutting and elimination of thousands of jobs?

Warren Buffett: Essentially, 3G management – I've watched them very close - is basically they believe in having a company as productive as possible, and of course, the gains in this world for the people in this room and the people in Omaha and the people throughout America have come from gains through productivity. If there had been no change in productivity, we would be living the same life as people lived in 1776. The 3G people do it very fast, and they're very good making a business productive with fewer people than operated it before. We've been doing that in every industry whether it's steel or cars. That's why we live as well as we do. We at Berkshire prefer to buy companies that are already run efficiently. Frankly, we don't enjoy the process at all of getting more productive. It's not pleasant, but it is what enabled the company to progress. Nobody has figured a way to double people's consumption per capita without in some way improving productivity per capita. It's a good question, and whether it's smart overall if you think you're going to suffer politically because political consequences do hit businesses. I don't know that I can answer the question categorically, but I can tell you they not only focus on productivity and do it in a very intelligent way but also focus to a terrific degree on product improvement, innovation and all of the other things that you want a management to focus on. At lunchtime if you had the Kraft Heinz cheesecake, you will agree with me that product improvement and innovation is just as much a part of the 3G playbook as productivity. Personally, we have been through the process of being in a textile business that employed a couple thousand people and went out of business over a period of time. It's just not as much fun to be in a business that cuts jobs rather than a business that adds jobs. Charlie and I would probably forgo having Berkshire buy businesses where the main benefits would come from increasing productivity by actually having fewer workers. I think it is pro social to think in terms of improving productivity, and I think the people at 3G do a very good job.

Charlie Munger: I don't see anything wrong with increasing productivity. On the other hand, there's a lot of counter-productivity publicity to doing it. Just because you're right doesn't mean you should always do it.

Warren Buffett: I agree with that.

SHARE REPURCHASES

Q. With \$100 billion in cash, would you increase the multiple you pay for share buybacks?

Warren Buffett: When the time comes, and it could come reasonably soon, even while I'm around. But if we really don't think we can get the money out in a reasonable period of time into things we like, we have to re-examine then what we can do with the funds that we don't think could be deployed well. At that time, we have to make a decision. It might include both. It could be repurchases and dividends. There are inferences that people draw from a dividend policy, different than from a repurchase policy, in terms of expectations that you won't cut a dividend. You have to factor that all in. If we felt we had excess cash that was unlikely to be used in a reasonable period of time, and we thought repurchases had a price that was still attractive to continuing shareholders and was feasible in a substantial sum that could make a lot of sense. At the moment, we are still optimistic enough about deploying the capital that we wouldn't be inclined to move to a price much closer – there's only a narrow spread between intrinsic value and the repurchase price– but at a point the burden of proof is definitely on us. The last thing we like to do is own something at 100 times earnings [like Treasury bills] where the earnings can't grow – 90 plus billion dollars invested in a business where we are paying almost 100 times earnings. It's kind of a lousy business. We don't like that. We shouldn't use your money that way for long periods of time. Are we going to be able to deploy it? I would say history is on our side, but it would be more fun if the phone rang instead of just relying on history books. I am sure that sometime in the next ten years, and it could be next week or nine years from now, there will be markets in which we could do intelligent things on a big scale. It would be no fun if it happened to be nine years off. I don't think it will be based on how humans behave, the government behaves and the world behaves, but at a point, the burden of proof really shifts to us big time. Three years from now, we cannot come back here holding \$150 billion in cash.

Charlie Munger: The answer is maybe.

CBT SUBSIDIARY AND SUSTAINABLE INVESTING

Q. Can you comment on CBT and making equipment that does not harm animals? Also would you address sustainable investing and nuclear war?

Warren Buffett: We have a subsidiary, CBT, and they do make the equipment for poultry growers. I can't answer your question specifically, but get in contact with Vic directly. He's a terrific manager, one of our very best managers. They do care about how the equipment is used in terms of poultry and egg production. They do make the equipment for poultry growers. It's a major factor in what they do. They do care about how the equipment is used in terms of poultry and egg production. I can't tell you enough about it directly. I think you would find him extremely well informed.

In terms of the nuclear weapon question, I'm very pessimistic on weapons of mass destruction, although I don't see nuclear as likely as biological and cyber threats – but I do think that a cyber threat is the number one problem of mankind.

Charlie Munger: Well, I don't think we mind killing chickens, and I do think we are against nuclear war.

Warren Buffett: We are not actually a poultry producer. They use our equipment. That equipment has been changed substantially, but I'm not as good on specifics.

TODD COMBS AND TED WESCHLER

Q. Why hasn't more cash been allocated to Todd Combs and Ted Weschler to invest for Berkshire in proportion to the \$100 billion in cash the company holds?

Warren Buffett: I would say they have been. I think we started out with \$2 billion and my memory was \$2 billion with Todd when he came with us. There have been substantial additions. Of course, their own capital has grown, since in a sense they retain their own earnings. So, they are managing a proportion of Berkshire capital or also measured by marketable securities – it's similar or maybe higher than when each one entered– Ted entered a year or two after Todd – I think they would agree that it's tougher to run \$10 billion than it is to run \$1 or \$2 billion. Your expected returns go down as you get into larger sums. The decision to bring them on has been terrific. They have done a good job of managing marketable securities. They have made more money than I would have made with the same \$20 billion, although it was originally \$2 billion. They have been a terrific help in a variety of ways beyond money management. It's been a very good decision. They are smart. They have money minds. They are good specifically on investment management, and they are absolutely first class human beings and fit with Berkshire. Charlie gets credit for Todd. I'll claim credit for Ted.

Charlie Munger: I think the shareholders are very lucky to have them because they both think like shareholders. It's a pretense that everyone takes on, but the reality is different. These people really deeply think like shareholders, and they are young and smart and constructive. We are all very lucky to have them around.

Warren Buffett: Their mindset is 100%, "What can I do for Berkshire, not what can Berkshire do for me?" You can spot that over time from people. On top of that, they are very talented. It's hard to find people- young, ambitious, very smart- that don't put themselves first. Every experience we've had, they do not put themselves first. They put Berkshire first. I can spot it when people are extreme in one direction or another. You couldn't have two better people in those positions. You might say, "Why don't you give them another \$30 billion each or something?" I don't think that would improve their lives or their performance. They may be handling more as they go along. But the truth is I've got more assigned to me than I can handle at the present time as proven by the fact we've got this \$90 billion plus around. I think there are reasonable prospects for using it, but if you told me I had to put it to work today, I would not like the prospect.

Charlie Munger: I certainly agree with that. It's a lot harder now than it was at times in the past.

CHARITABLE PLEDGE AND SHARE REPURCHASES

Q. What are the plans for your ownership stake which is heavily in Class A shares? The bulk is going to the Gates Foundation as part of your charitable pledge. Would Berkshire buy back shares for more than the stated policy of 1.2 times book value?

Warren Buffett: – Again, it would depend on the price of Berkshire in terms of privately negotiated share repurchases. In terms of what I give away annually, the last two years it's about \$2.8 billion

per year. That can be – that's one day's trading in Apple. The amount I'm giving away in terms of Berkshire's market cap - you're down to 7/10 of 1% of the market cap. I know a few big owners that might have 8,000 or 10,000 shares of A. When we bought that block of 12,000 shares of A, we bought it because we thought it would increase the intrinsic business value of Berkshire by a significant amount, and we paid the seller what the market was at the time. We are open to further share repurchases up to 120% of book value. Who knows if a large block came along at the time, and it was 124% of book value or something, a very large block, and the directors decided that was OK, and it was still a significant discount, we might very well buy it. In terms of the orderly flow of the market, there will be no problems, just as there haven't been when I've given away shares – I do it every July. Some of the charitable foundations may keep it for awhile, but they have to spend what I give them– they may build up a position in B shares for a fairly significant dollar amount, but they're going to sell it. It is true that for a period after I die, there will be a lot of votes still in the estate and later in the trust, but that will get reduced over time. I see no problem with our capitalization over time. I like the idea of a fair number of votes being concentrated in people that believe in the culture strongly and would not be thinking to get a 20% jump in the stock if somebody came along with some particular plan. Eventually that will get diminished. There's a very good market in Berkshire shares. If we can buy them at a discount to intrinsic business value, and someone offers a big piece, which may be selling at 1.22 times or 1.24 times book value, I would pick up the phone and call the directors and see if they didn't want to make a change [to the stated policy of 1.2 times book value]. We did it once before. If it made sense, I'm sure they would say yes. If it didn't make sense, I'm sure they would say no. I don't think we have any problem in terms of blocks of stock. I don't think that people that owned it would have a problem selling it, and I don't think we'd have a problem of evaluating the desirability of repurchasing it.

Charlie Munger: Nothing to add.

BANK OF AMERICA PREFERRED STOCK AND WARRANTS

Q. Noting that she had been a Berkshire shareholder since she was 15, she jokingly asked if they knew any eligible bachelors in New York. Then on to her real question. Can you comment on the Bank of America preferred stock and warrants, and when you would convert those into common shares?

Warren Buffett: When the price of the stock is above \$7 a share, which seems quite likely, whether we were going to keep it or not, it would certainly make sense to exercise the warrant shortly before it expired. It's only a valuable warrant if it's exercised and exchanged into common and that warrant does expire. As I put in the annual report, our income from the investment would increase if Bank of America ever got to where it was paying 11 cents per share in quarterly dividends – as we get \$300 million a year off the preferred, and for us to use the preferred as payment in exercise of the warrant, we would want to feel we were getting more than \$300 million a year. They may or may not get to where they pay that amount before the warrant expires in 2021. If it does get to there, we will exercise the warrant and instead of owning the 5 million of preferred and the warrants, we will have \$700 million plus shares of common. That becomes a separate decision, do we want to keep the \$700 million shares of common? If it were to happen today, I would definitely want to keep the stock. Who knows what other alternatives may be available in 2021, but if our warrants were expiring tomorrow, we would use the preferred to buy the \$700 million plus shares of common, and we would keep the common. If it gets to an 11 cent quarterly dividend, we will convert it and very likely keep the common. If we get to 2021, if the common is

above \$7, which I certainly anticipate, we will exercise the warrant. I wish you success on your other objective. And I think probably the fellow will be using very good judgment, too.

Charlie Munger: I think it's a very wise thing for a woman that owns Berkshire stock and is a good-looking woman to put her picture up like that for eligible bachelors.

Warren Buffett: We might actually start selling ads in the annual report. Incidentally, that BOA purchase, it's literally true that I was sitting in the bathtub when I got the idea whether they would be interested in the preferred. I spent a lot of time in the bathtub since and nothing has come to me. Clearly, I either need a new bathtub or we have to get into a different kind of market.

KRAFT HEINZ AND 3G CAPITAL

Q. Berkshire Hathaway's Kraft Heinz investment is with 3G Capital. 3G fired 2500 employees as part of the merger. Does that decision harm Berkshire and its values?

Warren Buffett: Berkshire fired 2000 people over time – some retired and left and all of that - at the textile operation. It didn't work. The Baltimore department store Berkshire invested in had to close. The successor fortunately sold it to somebody else, but they eventually closed up the department stores because department stores, at least that particular one and a good many of them, including our competitors in Baltimore, could not make it work. Wal-Mart came along and now Amazon is coming along with something that changed everything.

We mentioned CBT. The farm equipment that CBT develops--the idea is it is more productive than what is already out there-- which means fewer people are employed on farms. We had 80% of the American working population working on farms 100 years ago. If nobody had come up with things to make it more productive, we'd have 80 percent of the people working now on farms to feed our populous, which means we'd be living in a far more primitive way. If you look at the auto industry or any industry, they are trying to get more productive. Wal-Mart was more productive than department stores. That will continue or it better continue, or people will not live any better than we do. America does get more productive. People do come up with better ways of doing things.

When Kraft Heinz finds that they can do \$27 billion dollars worth of business and can do it with fewer people, they are doing what American businesses have done for a couple of hundred years. They increase productivity. That is why we live so well. They [3G Capital] do it very fast. They are more than fair in terms of severance pay. They don't want to have two people doing the job that one person can do. I faced it with Dexter Shoes. It really needed change. Change is painful for a lot of people. I would just rather spend my days not doing that sort of thing. It's essential to America that we become productive because that is the only way we have more consumption per capita and have more productivity per capita.

Charlie Munger: You're absolutely right. We don't want to go back to subsistence farming. I had a week of that when I was young at a western Nebraska farm, and I hated it. I don't miss the elevator operators that used to sit there all day in the elevator and run the little crank. It's terribly unpleasant for the people that have to go through it. Why would we want to get into the business of doing that over and over ourselves? We did it in the past when we had to when the businesses were dying. I don't see any moral fault in 3G at all. I do see that there's some political reaction that doesn't do anybody any good.

Warren Buffett: Milton Friedman would talk about the huge construction project in some communist country. They had thousands and thousands of workers out there with shovels digging away on this major project. Then they had a few of these earth-moving machines behind them which were idle which could have done the work in 1/20th of the time of the workers. The economist suggested why in the world they didn't use the machines to get the job done in 1/10th or 1/20th of the time instead of having all of these workers out there with shovels. The guy replied that would put the workers out of work. Friedman said, "Then, why don't you give them spoons to use instead?"

DEAL SIZE

Q. With Berkshire committed to holding a minimum of \$20 billion for liquidity purposes, can that amount be invested if you found an attractive opportunity?

Warren Buffett: I wouldn't include the bonds with the cash— when we talk about holding \$20 billion in cash. \$20 billion would be the absolute minimum in cash we would hold. Since I set \$20 billion as a minimum, I'm not going to operate with \$21 billion any more than if I see a truck sign on the highway that says maximum load 30,000 pounds and then drive 28,800 pounds across it – we won't come that close. We are not inclined to use debt. If we found something that lit our fire, we might do some debt, but it's unlikely under today's circumstances. \$20 billion is an absolute minimum on liquidity, but we could still do a very large deal if we thought it was sufficiently attractive. We haven't put our foot to the floor really for a very long time. We spent \$16 billion back when we were much smaller in a period of three weeks in the fall of 2008 – we never got to a point where there was any problem of sleeping at night. Charlie, at what point if I called you would you say that a deal was a little bit big for us today?

Charlie Munger: \$150 billion would be too big for a deal.

Warren Buffett: Well, in that case I'll call you. I'm a little more conservative than Charlie. If we find a really big deal that makes compelling sense, we will do it.

JORGE PAULO LEMANN

Q. With your deals with 3G Capital, could Jorge Paulo Lemann, a founder of 3G Capital, be a potential successor for Berkshire or be on Berkshire's board of directors?

Warren Buffett: I don't think that would happen, and I think it would complicate things in terms of the board membership. We love the idea of being their partner, and I think there's a chance we will do more and perhaps bigger things together. It's not likely we will be doing much change in the board in the next few years. There will be a successor, and the successor may very well be while I'm alive. It's a high probability that that will be somebody that's been within our company for a very long time.

Charlie Munger: All I can say is my back hurts. I come to these functions because I want to indicate to my fellow shareholders that they probably have seven good years to get out of Warren.

Warren Buffett: Charlie is inspiring to me. We've been very, very lucky in life. So far our luck seems to be holding.

FRUIT OF THE LOOM

Q. Is Fruit of the Loom experiencing difficulty due to online shopping?

Warren Buffett: The answer is essentially no, so far. Anybody that doesn't think online isn't changing retail in a big way is wrong, and anybody that thinks they are totally insulated from it is incorrect. The world is changing big time. Fruit of the Loom really hasn't changed much and our furniture operation, which is setting a record again this year for our shareholders' weekend – we did \$45 million in one weekend. Our furniture operations, it's hard to see any effect from online outside of our own online operations. We had really good same-store sales in furniture. There's a lot of things we didn't see ten years ago that then materialized. One thing you may find interesting is the Nebraska Furniture Mart here in Omaha, which is an extraordinary operation-- the online business has grown substantially. I think it's getting close to 10% of volume. A very significant percentage of people still go and pick the furniture up at the furniture mart. Apparently, it's the time spent entering the stores or the checkout lines which have people shopping online. We keep looking at the figures. So far, it has not affected Fruit of the Loom in a significant matter or the furniture operations.

I have no illusions that ten years from now, it will look anything like it did today. The retail landscape has changed dramatically over the decades with the evolution from department store sales to online sales. A big department store in Omaha would have thousands of dresses. The department store was exciting variety. The shopping center then made it horizontal but kept incredible variety and the convenience of going to one place. Now you go to the discount stores. Today, you have the Internet, and the ultimate in assortments and people coming in at low prices and transportation is taken care of. The department store is online, expanded in assortment, much more convenient, speed has increased dramatically. Brands will be tested in a variety of ways. They will have to make decisions on whether they try to do it online themselves or work through an Amazon or hang on to the old methods of distribution. There's a lot of questions in retail and branding that are very interesting to watch. We will get some surprises in the next ten years. I can promise you that.

Charlie Munger: It would certainly be unpleasant if we were in the department store business today. Just think of what we avoided, Warren.

Warren Buffett: We got very lucky. We were in the department store business and our business was so lousy that we recognized it. If it would have been a little bit better, we would have hung on. We owe a tremendous gratitude to Sandy Gottesman, our director, because he got us out of the business when Charlie and I and Sandy were partners. Something we paid \$6 a share for – I think it's worth about \$100,000 a share now because we got out of the business. If it had been somewhat of a better business, it might be worth \$10 or \$12 a share now. Sometimes you get lucky. We don't miss it either, do we?

Charlie Munger: No, we don't miss it.

BOOK VALUE AND INTRINSIC VALUE

Q. With Berkshire's intrinsic value driven more by its operating businesses than its stock investments, is book value per share still relevant for valuing Berkshire?

Warren Buffett: It has some relevance. It has a whole lot less relevance than it used to. I don't want to drop the book value per share factor, but the market value tends to have more significance as the decades roll along. It's a starting point. Clearly, our securities aren't worth

more than we were carrying them for at that time. On the other hand, we've got the kind of businesses you mentioned but also some small businesses that are worth ten times or so more than we are carrying them on our books. We've got some clunkers, too. I think the best method, of course, is to calculate Berkshire's value in terms of intrinsic value. It can't be precise. We think the probability is exceptionally high that 120% of book value understates it. If it was all in securities, 120% would be too high. As the business has evolved, as we built in unrecognized value at the operating businesses, unrecognized for accounting purposes, I think it still has some use as being kind of the base figure we use. If it were a private company and ten of us here owned it – instead, we'd just sit down annually and calculate the businesses one by one and use that as a base value, but that gets pretty subjective when you have as many as we do. I think the easiest thing is to use the standards we are using now, recognizing the limitations in them.

Charlie Munger: I think equities held in the insurance company are really not worth the full market value because they are locked away due to taxes. We have replaced lots of our marketable securities with private companies. I basically like it when our marketable securities go down, and our wholly-owned businesses go up.

Warren Buffett: We are working to that end now for 30 years now.

Charlie Munger: We've done a good job, too. We've replaced a lot of marketable securities with unmarketable securities that are worth a lot more.

Warren Buffett: It's actually a more enjoyable way to operate beyond that.

Charlie Munger: We know a lot of good people we wouldn't otherwise be with.

BUY WHAT YOU KNOW

Q. Your investment advice has always been to buy what you know. You are not known for being a tech guy, but you are now investing and talking more about tech companies. You've only tweeted nine times in the last four years.

Warren Buffett: It was either that or go to a monastery. I don't think I've talked that much about tech companies. I made a large investment in IBM, which has not turned out that well. We haven't lost money. In terms of the bull market we've been in, it has been a significant laggard. Fairly recently, we took a large position in Apple, which I do regard more as a consumer goods company in terms of certain economic characteristics. It has a huge tech component in terms of what that product can do or what other people might come along to do to leapfrog it in some way. I think I'll end up being one for two instead of 0 for 2, but we will find out. I make no pretense whatsoever of being on the intellectual level of some 15-year old that has an interest in tech. I may have some insights into consumer behavior. I certainly can get a lot of information on consumer behavior and then try to draw inferences as to what consumer behavior is likely to be in the future. I will make some mistakes on marketable securities. I've made them in other areas other than tech. You will not bat 1000 no matter what industries you try to stick with. I know insurance pretty well, but I think I've lost money on insurance stocks once or twice over the years. You don't bat 1000, but I've gained no real knowledge about tech since I was born actually.

Charlie Munger: I think it's a very good sign that you bought Apple. It shows either one of two things. Either you've gone crazy or you're learning. I prefer the learning explanation.

Warren Buffett: So do I, actually.

ARTIFICIAL INTELLIGENCE

Q. How will artificial intelligence impact Berkshire?

Warren Buffett: I certainly have no special insights on artificial intelligence. I will bet a lot of things will happen in that field in the next couple of decades and probably a shorter time frame. They should lead, I would think, again, I don't bring much to this party, but I would think it would result in significantly less employment in certain areas, but that's good for society but it may not be good for a given business. But let's take it to the extreme. Let's assume one person could push a button and essentially through various machines and robotics turn out all of the output we have in this country. There's just as much output as we have. It's all being done by, instead of 150 million being employed, one person. Is the world better off or not? They would certainly work less hours per week. It would be a good thing but require enormous transformation in how people relate to each other, what they expect from government and all kind of things. As a practical matter, more than one person would keep working. Artificial intelligence is enormously pro-society eventually, but enormously disruptive in other ways, and it can have huge problems in terms of democracy and how it reacts to that. It's similar to the problem we have in trade. Trade is beneficial to society. But the people that see the benefits day by day of trade don't see a price at Wal-Mart on socks or whatever they're importing. You're paying X, but you would pay X plus so many cents if you bought this domestically. They are getting these small benefits, invisible benefits. The guy that gets hurt by it, who is the roadkill of free trade, feels it very specifically. That translates into politics. It gets very uncertain to how the world would adjust in my view to great increases in productivity. Without knowing a thing about it, I would think artificial intelligence would have a hugely beneficial social effect but a very unpredictable political effect if it came in fast, which I think it could.

Charlie Munger: You're painting a funny world where everybody is engaged in trade. I don't think it would be good for America to have everything produced by one person and the rest of us just engaged in leisure.

Warren Buffett: How about if we got twice as productive in a short period of time so 75 million people could do what 150 million are doing now?

Charlie Munger: I think you'd be amazed how quickly people would react to that.

Warren Buffett: In what way?

Charlie Munger: Favorably. That's what happened, if everybody remembers with such affection, back in the Eisenhower years, 5% a year, people loved it. Nobody complained they were getting air conditioning when they didn't have it before. Nobody wanted to go back to stinking, sweating nights in the south.

Warren Buffett: If you cut everybody's hours in half, that's one thing. If you fire half the people and the other people keep working – I think it gets very unpredictable. I think we saw some of that in this election.

Charlie Munger: We adjusted to an enormous amount of productivity. It just came along a few percent a year. I don't think you have to worry about it coming out at 25% a year. I think you have to worry about it if you get less than 2% a year. That's what's worrisome.

Warren Buffett: It is an absolutely fascinating subject to see what happens with this, but it gets very hard to predict. We have 36,000 people employed at Geico. If you could perform virtually all the same functions and do it with 5,000 or 10,000 people, it would be disruptive especially if it came on quickly and the same thing was happening in many other areas. I don't think we ever experienced anything quite like that and maybe we won't because I don't know that much about artificial intelligence.

Charlie Munger: I don't think you have to worry about that.

Warren Buffett: That's because I'm 86.

Charlie Munger: It's not going to come that quickly.

WIND INVESTMENTS VS SOLAR INVESTMENTS

Q. Do you favor investing in wind projects over solar projects?

Warren Buffett: We don't look at it as having more solar capacity than we need. It's really a question of what project comes along. We've got a big appetite for wind or solar. Just based on those figures, we've seen more wind lately. We have no bias toward either one. If we saw \$5 billion of attractive solar projects and didn't see any wind, it wouldn't slow us down from doing the \$5 billion or vice versa. We have a huge appetite for projects in either area. We are particularly well-situated – I think I talked about it in the past - because we pay lots of taxes. Therefore, solar and wind projects all involve a tax aspect– we can handle those much better than many others. Most electric utilities don't have that much money left over after dividends, and their taxes aren't that significant. At Berkshire, we have lots of money and pay lots of taxes and can use the tax benefits from wind or solar. It's a question of doing the math. We have been very fortunate in Iowa in finding projects that made lots of sense. We have a much lower price for electricity than our main competitor in the state. We have a lower price than any state it touches. We told the people of Iowa they won't have a price increase for many, many years. It's worked out extremely well, but if somebody walks in with a solar project tomorrow and it takes \$1 or \$3 billion, we are ready to do it, and the more, the better. There's no specific preference between the two. Obviously, it depends where you are in the country. Iowa is terrific for wind, and California is for sun. There are geographical advantages to one or the other. From our standpoint, we can do them from any place, and we will do them any place.

AMAZON

Q. You admire Jeff Bezos. Why have you not invested in Amazon?

Warren Buffett: I was too dumb to realize what was going to happen. I admired Jeff for a long, long time and watched what he was doing. I did not think he could succeed on the scale he has or even think about the possibility of doing anything with Amazon web services or the cloud. If you asked me the chances that while he was building up the retail operation, he would also be doing something that was disrupting the tech industry--that would have been a longshot for me. I underestimated the brilliance of the execution. It is one thing to dream about doing this stuff online, but it takes a lot of ability. You can read his 1997 annual report, and he laid out a roadmap. He has done it and done it in spades, and if you haven't seen his interview with Charlie Rose three or four months ago – Charlirose.com, go to it and listen to it because you will learn a lot, at least I did. The stock always looked expensive. I really never thought he would be where he is today. I

thought he was really brilliant. I did not think he would be where he is today when I looked at it 3, 5, 8, or 12 years ago. Charlie, how did you miss it?

Charlie Munger: It was easy. What was done there was very difficult. It was not at all obvious that it was all going to work as well as it did. I don't feel any regret about missing out on the achievements of Amazon. Other things were easier, and I think we screwed up a little.

Warren Buffett: We won't pursue that line.

Charlie Munger: I meant Google.

Warren Buffett: We missed a lot of things.

Charlie Munger: And we will keep doing it. Luckily, we don't miss everything, Warren. That's our secret. We don't miss them all.

Warren Buffett: We better move on. He may start getting specific.

SHARE REPURCHASES POST-BUFFETT

Q. If there is selling pressure after Buffett or Munger dies and Berkshire's stock falls to where share repurchases are attractive, will the Board repurchase shares or will they think they are taking advantage of shareholders?

Warren Buffett: As far as I'm concerned, they are not taking advantage of shareholders if they buy the stock when it's undervalued. That's the only way they should buy it. There were a few cases back when Charlie and I were much younger where there were very aggressive repurchases or the equivalent of repurchases by people, and the repurchases made a lot more sense then than they do now. They were done by people with various techniques who tried to depress the shares. If you're trying to encourage your partners to sell out at a depressed price by various techniques, including misinformation, but there's other techniques, I think that's reprehensible. Our Board wouldn't do that. I think the stock is more likely to go up. If I died tonight, the stock would go up tomorrow. There would be speculation about break-ups and all that sort of thing. It would be a good Wall Street story. Breaking up something where some of the parts might sell for more than the whole – the stock might sell temporarily for more than the whole. I would bet in that direction. If for some reason it went down to a level that's attractive, I don't think the Board is doing anything in the least that's reprehensible by buying stock – there's no false information. The seller would get a somewhat better price than if they weren't buying. The continuing stockholders would benefit. I think it's obvious what they would do. I think it's obvious it's pro-shareholder to do it. They would engage in pro-shareholder acts.

Charlie Munger: You and I might suddenly get very stupid very quickly, but I don't think our Board is going to have that problem.

Warren Buffett: I want to think about that one.

NEW ACCOUNTING STANDARD ON STOCK OPTIONS

Q. Does the new or old accounting standard on excess tax benefits on stock options make more sense to you?

Warren Buffett: Charlie, I think you know a lot more about that than I do. If I were to answer that question, I'd probably call you up and say what do I say? I've heard just a little bit about that accounting standard.

Charlie Munger: It's not a big deal, Warren.

Warren Buffett: I know that. There are a few things in accounting that we really disagree with. They might be material to somebody trying to evaluate Berkshire and that primarily gets into amortization of intangibles. We will go to great lengths to tell our partners and not all of them are accounting experts – we will try to make clear to them as to what our view is the same way as if I had a family business and I was talking to my sisters about it. Unless it is material, we will try to stay away from trying to find any new accounting standards to discuss. If it's material to Berkshire, we will go to great lengths to at least give our view.

Charlie Munger: What he is talking about is not very material to Berkshire.

Warren Buffett: Some of the other accounting standards are material like amortization of intangibles related to acquisitions. We are reporting \$400 and some millions less in our earnings than if Precision Castparts had remained a public company. Are the earnings less real, is the cash less real because it's moved the ownership? I don't think so. I want to convey that belief to shareholders. I think it's a mistake not to comment and assume the owners understand it. It's a fairly arcane point.

VALUATION METHODS

Q. In looking at the Chinese market vs the U.S. market, what is the best valuation method, market cap divided by GDP or the Cyclically Adjusted P/E (CAPE) method?

Warren Buffett: Both of the standards you mention are not paramount at all in our valuation of securities. The present value of the future cash that can be taken out of the business is the important factor in valuing a business. People are always looking for a formula. There's not an ultimate formula. You don't know what to stick in for the variables. Every number has some degree of meaning. Valuation of a business - it is not reducible to any formula where you can actually put in the variables perfectly. Both of the things you mentioned get themselves bandied around a lot. Sometimes they can be very important. Sometimes they can be almost totally unimportant. It's not quite as simple as having one or two formulas. The most important thing is future interest rates. People frequently plug in the current interest rate saying that's the best they can do. The 30-year bond rate should tell you what people who are willing to put out money for 30 years and have no risk of dollar gain or dollar loss at the end of the 30-year period expect to earn. I'm not sure I can come up with a better figure. That doesn't mean I'm going to use the current figure either. I'd say – I think Charlie's answer is he does not come up with China vs the US market valuations based on what you've mentioned as yardsticks.

Charlie Munger: All I said before is the first rule of fishing is to fish where the fish are. A good fisherman can find more fish in China now. That's all I meant. It's a happier hunting ground.

Warren Buffett: If you want to be a good evaluator of businesses, as an investor, you really ought to figure out a way to run a lousy business for awhile. You learn a whole lot more about business by actually struggling with a terrible business for a couple of years than you learn by getting into a very good one where the business is so good you can't mess it up. It was a big part of our

learning experience, and I think a bigger part in the sense of being involved in a good business was actually being involved in some bad businesses and seeing -

Charlie Munger: -how awful it was.

Warren Buffett: How awful it is and how little you can do about it and how IQ does not solve the problem. It's a useful experience, but I wouldn't advise too much of it.

Charlie Munger: It was very useful to us. There's nothing like a personal, painful experience if you want to learn, and we certainly had our share of it.

WHAT WOULD HARM BERKSHIRE AS A BUSINESS?

Q. What could cause Berkshire not to work?

Warren Buffett: Well, if there were some change, we got some infection, an outside agent of some sort to change the culture in some way, an invasion of different thought. As a practical matter, I don't think anything – it's the things you can't think of – I can't think of anything that can harm Berkshire in a material permanent way except weapons of mass destruction. I regard that as a low probability. It would take a recession, depression, panic, hurricanes, earthquakes, they would all have some effect, and in some cases we would do better because of them, but if there were a successful, as measured by the aggressor, nuclear, chemical, biological or cyber attack on the US, and there are plenty of people or organizations that would like to pull that off, and maybe even a few countries, it could disrupt society to such an extent that it would harm us. I think with the variety of earning streams and with the asset positions, with the general philosophy, we would be very close to the last one affected. If someone figures out how to kill millions of Americans and totally disrupt society, then all bets are off.

Charlie Munger: I agree that it would take something really extreme. British Petroleum took a huge loss with one oil well blowing. The parent company - one horrible accident somewhere, we would tend to pay, of course, maybe more than our legal liability - one accident with one subsidiary that cost a lot of damage – we are better protected than most companies. In every way, Berkshire is structured to handle stresses.

Warren Buffett: It's the kind of thing we think about all the time. I don't know any company that could better handle specific adversities. If you get into what could happen with weapons of mass destruction, that's something we can't predict. If that ever happens, there will be more to worry about than the price of Berkshire.

SPECIALTY INSURANCE

Q. Is Berkshire destined to become a leading specialty insurer with \$1.3 billion in premium volume, up 40% in the last year?

Warren Buffett: I think how fast it grows does depend very much on the market. We are not interested in trying to be a price cutter in a market where the prices aren't that attractive. We have built the operation to scale worldwide– a lot of capacity has been added. We will grow a lot, but if the market should turn hard for any reason, we would grow a lot faster. We are destined to be one of the leading property and casualty insurance firms in the world just as we were destined to become a very important reinsurer throughout the world and almost the only reinsurer with certain types of risk in the world. We have the people, the capital and the reputation. There is no

stronger company in the insurance world. We have the talent there. It may grow slowly some years. It may have big jumps just like the reinsurance operation did many years ago. It's a very important addition to Berkshire. I wish we could have started it earlier. You had to have the right people. They came to us. We will write more this year. We won't write as much as if we were in a hard market.

LEARNING MACHINE AND SCUTTLEBUTT

Q. Charlie has called you a learning machine. What are some of the most interesting things you've learned?

Warren Buffett: Charlie is much more of a learning machine than I am. I'm a specialist. He does as well as I do in my specialty, and he has a much more general absorption rate than I have about what is going on in the world. It's a world that gets more fascinating all the time. A lot of fun can occur when you learn you were wrong on something. That's when you really learn that the old ideas really weren't so correct. You had to adapt to new ones. That, of course, is difficult. I think actually what's going on in America is terribly interesting – politically all kinds of things. Just the way the world is unfolding – it is moving fast. I do enjoy trying to figure out what is going to happen. I don't think I have any special insights that would be useful to you.

Charlie Munger: I think buying the Apple stock is a good sign in Warren. He did run around, asking if he could take his grandchildren's tablets away. He did market research. I do think we keep learning. More importantly, we don't unlearn the old tricks. That's really important. You look at the people who are printing money and lying, so forth, take Puerto Rico, who would have guessed that a territory of the US would be in bankruptcy? I would have predicted it because they behaved like idiots.

Warren Buffett: We did not buy any Puerto Rico bonds.

Charlie Munger: No. If you go to Europe, look at the government bond portfolios. There's no Greek bonds. No bonds, but from Germany. Everybody in Berkshire is being sensible. That is a great pleasure and combine that with we are very opportunistic. When something comes along, like a panic, it's like playing with two hands instead of one at a game that requires two hands. It helps to have a fair-sized repertoire. Warren, we've learned so damn much. There's all kind of things we've done in the last ten years that we would not have done 20 years ago.

Warren Buffett: One of the best books written on investments was written in 1958 by Phil Fisher – "Common Stocks and Uncommon Profits." I learned the scuttlebutt method of asking lots of questions from that book. That was something I didn't learn from Ben Graham. Every now and then it turns out to be very useful.

Charlie Munger: I saw you do it with American Express during the salad oil scandal and now you are doing it with Apple decades later.

Warren Buffett: In certain cases, you can learn a lot by asking a lot of questions. I give Phil Fisher credit. That book goes back a lot of years. Some of the companies he picked as winners forever did sort of peter out on him. You can learn a lot of things just by asking questions. If I got interested in the coal industry, to pick one out of the air, when I was much younger and more energetic, if I went and talked to the heads of ten coal companies and I asked each one of them, into the conversation after they felt like talking, I'd say if you had to go away for ten years on a desert island, and you had to put all of your family's money into one of your competitors, which

one would it be and why. Then I'd ask them if they had to sell short one of their competitors, which one it would be. Everybody loves talking about their competitors. If you do that with ten different companies, you'll probably have a better fix on the economics of the coal industry than any one of those individuals has. There's ways of getting at things and sometimes they're useful, and sometimes they're not. The idea of learning all the time – I'm more specialized. I just want to learn about something that will help Berkshire. Scuttlebutt is a very useful attitude toward the world. I don't know who said it, but somebody said the problem is not getting the new ideas but in shedding the old ones. There's a lot of truth to that.

Charlie Munger: We would never have bought Iscar or Precision Castparts if they had come along ten years earlier. We are learning. My God, we are still learning!

HEALTHCARE

Q. Is the healthcare problem the number one problem for business? Will it impact Berkshire?

Warren Buffett: If you go back to 1960, or thereabouts, corporate taxes were about 4% of GDP and now they are about 2% of GDP. At that time, healthcare was 5% of GDP, and now it's about 17% of GDP. When American business talks about taxes strangling our competitiveness, they're talking about something that as a percentage of GDP has gone down from 4% to 2% while medical costs which are borne to a great extent by business have gone up from 5% to 17%. Medical costs are the tapeworm of American economic competitiveness if you're really talking about it.

Business knows that. They don't feel they can do much about it. The tax system is not crippling Berkshire's competitiveness around the world or anything of the sort. Our healthcare costs have gone up incredibly and will go up a lot more. If you look at the rest of the world, there were a half dozen countries that were around our 5% if you go back to the earlier years. While we are at 17% now, they are at 10% or 11% of GDP. They have gained a 5 or 6 point advantage, even in these countries with fairly high medical costs.

Charlie Munger: That's the socialized medicine.

Warren Buffett: Whatever I said then goes and is accentuated now. That is a problem this society is having trouble with and will have more trouble with regardless of which party is in power or anything of the sort. It almost transcends that. In terms of the new act that was passed a couple of days ago versus Obamacare, it's a very interesting thing. All I can tell you is the net effect of that Act on one person is that my Federal income taxes would have gone down 17% last year if the healthcare act Trump has proposed went into effect. It's a huge tax cut for guys like me. You'll have to figure out the effects of the rest of the Act, but one thing I can tell you is that if it goes through what the White House put in is that anybody with \$250,000 a year of adjusted gross income or a lot of investment income is going to have a huge tax cut. When there's a tax cut, either the deficit goes up or they get the taxes from somebody else. As it stands now, that's the one predictable effect of the Act if it should pass. The Senate will do something different, and it will go to conference and who know what will happen? That is in the law that was passed a couple of days ago.

Charlie Munger: I certainly agree with you about the medical care. What I don't like about the medical care is that – we are getting too much medical service. There's too much chemotherapy on people that are all but dead and all kinds of crazy things going on in Medicare and other parts of the health system. There are so many vested interests that it's very hard to change, but I don't think any rational person looking objectively from outside of the American system of medical care

– we all love the new life saving stuff and the new chemotherapy and new drugs, but, my God, this system is crazy and the cost is just going wild. It does put our manufacturers at a big disadvantage with other people where the government is paying the medical costs. I agree with Warren totally.

Warren Buffett: If you had to bet, ten years from now, will it be higher or lower than 17% of GDP?

Charlie Munger: If present trends continue, it will be more and more. There are huge vested interests in having this thing continue the way it is, and they are very vocal and active and the rest of us are indifferent. Naturally, we get a terrible result. I would say on this issue that both parties hate each other so much that neither one of them can think rationally, and I don't think that helps either.

Warren Buffett: It's kind of interesting that the federal government spends \$3 and a half trillion or something like that—\$3 trillion is spent on healthcare. Everybody wants the best. It's perfectly understandable. It's a big number compared to the whole federal budget. If you talk about world competitiveness of the American industry, it's the single biggest variable where we keep getting more and more out of whack with the rest of the world. It's very tough for political parties to attack it. It basically is a political subject.

Charlie Munger: It's deeply immoral. If you have a group of hospital people that are feasting like a bunch of jackals on the carcass of some dying person, it's not a pretty sight.

Warren Buffett: Tell them about that group out in California.

Charlie Munger: This is Redding. This is one of my favorite stories. There are a bunch of very ambitious cardiologists and heart surgeons in Redding, and they got the thought that a heart is a widow maker. Every patient that came in, they said, you've got a widow maker in your chest, and we know how to fix it. They recommended heart surgery for everyone. Of course, they did a huge volume of heart surgery, and they got wonderful results because nobody comes through heart surgery better than a man who doesn't need it at all. They made so much money that the hospital chain brought in all of its other hospitals and asked, "Why can't you people be more like Redding?" This is a true story. It went on and on. Finally, there was some Catholic priest, and they said you've got a widow maker in your chest, and he didn't believe them and he blew the whistle.

Warren Buffett: He was a priest. You can see why he didn't believe them. When you've got a routine, you just keep using it.

Charlie Munger: Later, I met one of the doctors that threw these people out of the medical profession, and I said to him, in the end, did they think they were doing anything wrong? He said, "No, Charlie. They thought what they were doing was good for people." That is why it's so hard to fix these things. The delusion that comes into people as they make money and get more successful by doing things should never be underestimated. A lot of that goes on. You get on to such gross craziness. The heart surgery rate was 20 times normal or something. You think you'd notice it if you were running a hospital, and maybe they did notice it if you wanted your other hospitals to be more like it.

Warren Buffett: They had a perfect success ratio.

BERKSHIRE ENERGY

Q. Are there key attributes that Berkshire Energy would be looking for in future acquisitions, such as transmission assets versus generation assets?

Warren Buffett: Generation assets you could say have inherently more risk because some of them will be stranded or obsolete. More of the capital investment is in the generating asset. That tends to be where a good bit of the capital base is. We like the utility business OK. Electricity demand is not increasing like it was. There are going to be stranded assets. If they are stranded because of rank foolishness, the Utility Commission will be less inclined to let you figure that in your rate base as you go forward. We still think the utility business is a very decent asset. The prices are very high. That's what happens in a low interest rate environment. I would be surprised if ten years from now we don't have significantly more money in not only wind and solar, but we will probably own more utility systems than we own now. We are a buyer of choice with many utility commissions. There's a slide that shows something about our pricing compared to other utilities. Greg Abel and his group have done an extraordinary job. They've done it in safety, in reliability, price and renewables. It's hard to imagine a better run operation than exists at MidAmerican Energy. With that record, people want us to come to their state in many cases. When prices get to the level they have and some utilities are sold at extraordinary prices, we can't pay them and have it make sense for Berkshire shareholders. Just because we can't do it this year doesn't mean it won't happen next year or the year after. I think we will get a chance.

Charlie Munger: Our utilities are not normal, the way Greg has run those things – they are so much better run in every way than other utilities. They are better regarded by the paying customers and by the regulators. They have better safety records. It's a pleasure to be associated with people like that and have assets of that quality, and it's a lot safer. If somebody asked Berkshire to build a \$50 billion nuclear plant, we wouldn't do it.

Warren Buffett: We have public power here in Nebraska. There are privately-held utility systems. Those utilities have no requirement for earnings on equity. They can borrow at tax-exempt rates. We have to borrow at taxable rates. And Nebraska, it's not that much different than Iowa. We are selling electricity across the river a few miles from here at lower prices than exist in Nebraska. It's an extraordinary utility. I thank Walter Scott, our director, for introducing me to it 18 years ago or so. I don't think the utility business as such – if I were putting together a portfolio of stocks, I don't think there would be any utilities in that group now, but I love the fact that we own Berkshire Hathaway Energy.

Charlie Munger: It's radically different and better.

Warren Buffett: A lot better.

MCLANE

Q. McLane is a subsidiary with large revenues, why don't we hear more about it?

Warren Buffett: The reason you see their figures separately in the annual report is because the FCC has certain requirements that are based on sales. McLane is a company that has an extraordinary amount of sales in relation to intrinsic value or net income. It's a distributor – it's a huge customer of the food companies, candy companies, cigarette companies, anything that goes into convenient stores, but we bought it from Wal-Mart, and Wal-Mart is our biggest customer. I can't tell you the precise volume. You have Wal-Mart and Sam's together – 20% plus – it's nationwide. In the end, it operates on about 6% gross margins and 5% operating expenses. It has

a 1% pre-tax margin which only works in terms of return on assets if you turn your inventory extraordinarily fast, and that's what McLane does. Moving things in and out very fast, very efficiently. It also has a few liquor distribution subsidiaries that have wider margins. The basic McLane business is \$45 billion plus, and makes 1% pretax on sales. The return on capital is very decent. Grady Rosier is exceptional and was there when we bought it from Wal-Mart. I've been there once. Thousands and thousands of trucks, big distribution centers all over the country. It is a major factor in moving goods at wholesale. It earns good returns in relation to invested capital and on the price paid for the business. Moving your receivables exceptionally fast. Sales are 30 times receivables, 30 times payables and 35 times inventory – this is a business that is moving a lot of goods. It's an important subsidiary but not as remotely important as indicated by sales.

Charlie Munger: You said it all.

Warren Buffett: Wal-Mart wanted to sell it. They came to see us. We made a deal. The CFO came, we talked for a while. He went into the other room and called the CEO, and he came back and said you have a deal. Wal-Mart told me subsequently that they never had a deal that closed as fast as the one with Berkshire. We said what we would pay. It was cash. We got it done very promptly, and they were terrific on their side.

Charlie Munger: That reputation for being quick and simple and doing what we promised has helped at Berkshire time after time.

Warren Buffett: We wouldn't have made that deal without having that reputation.

Charlie Munger: You bought the Northern Natural Gas Company in one weekend. They wanted the money on Monday. Before the lawyers could complete the legal papers, we managed to do it.

Warren Buffett: I think it took some clearance in Washington. I think I wrote a letter and said if they decided after looking at it, that they didn't want to clear it, we would undo the deal. These guys needed the money so bad we were going to give them the money essentially on the deal clearing. There wasn't a reason why it wouldn't clear, but there was a procedural problem. Most companies can't do that. We have flexibility that really in most large companies doesn't plain exist. There's too many people that have to sign off on it. The Northern Natural deal wouldn't have been made if we had to follow the normal time table.

Charlie Munger: It's a lovely business to own.

LEGACY

Q. What would you like to be known for?

Charlie Munger: My first memory, when Warren got on the subject, I asked Warren what he would like said at his funeral. He said, "I want them all to be saying that's the oldest looking corpse I ever saw."

Warren Buffett: That may be the smartest thing I ever said. To me, it's pretty simple. I really like teaching. I've been doing it formally and somewhat informally all my life. I certainly had the greatest teachers you could imagine. If someone thought I did a decent job at teaching, I'd feel very good about that.

Charlie Munger: To making teaching durable, there has to be a bit of wise-assery in it, and that we've both been able to supply.

Warren Buffett: Those of you who are old-time basketball fans, on Wilt Chamberlain's tomb it was reputed that it was going to say, "At last, I sleep alone."

DREAM

Q. What's your dream now?

Charlie Munger: My dream? Well...

Warren Buffett: Let's skip the first one.

Charlie Munger: Sometime when I'm especially wishful, I think, oh, to be 90 again!

I've got some advice for the young. If you've got anything you really want to do, don't wait until you're 93 to do it.

Warren Buffett: That's the same thing I would tell students. When you go out in the world, look for the job you would take if you did not need the job. You can't always find it the first time or the second time. Don't postpone that sort of thing. Kierkegaard said life must be evaluated backwards, but it must be lived forward. Charlie says all he wants to know is where he will die so he will never go there. You do want to do a certain amount of reverse engineering in life. That doesn't mean you can do everything that way. Think about what will make you feel good when you get older about your life, and you at least generally want to keep going in that direction. You need some luck in life, and you have to accept some bad things that will happen as you go along. Life has been awfully good to me and Charlie so we have no complaints.

Charlie Munger: You don't want to be like the man that has his funeral, and the minister says now is time for someone to say something nice about the deceased, and nobody came forward. Surely, somebody can say something nice about the deceased? Finally one man came up, and he said, "Well, his brother was worse."

REGRETS IN LIFE and EBITDA

Q. You are highly respected and loved by millions globally. You believe EBITDA (is not a good parameter to evaluate a business. Do you have regrets in life, one thing you would have done differently in life, family, personal or business, what is it?

Warren Buffett: I don't think you should expect us to answer that on personal matters. In business, I'd say I wished I met Charlie earlier. We've had a lot of fun ever since I was 29 and he was 35. It would have been even more fun if we started many years earlier. We had a chance to. We worked in the same grocery store but not at the same time.

In respect to EBITDA, it's the worst kind of expense. We love to talk about float and float is where you get the money first and have the expense later. Depreciation is where you spend the money first and then record the expense later. It's reverse float. It's not a good thing. It's much better to buy a business, everything else being equal, and it has no depreciation because it has essentially no investment in fixed assets. EBITDA is a very misleading statistic that can be used in very pernicious ways.

Charlie Munger: I think you understated the horrors of the subject and the disgusting nature of the people that brought that term when I was in business. It would be like a leasing broker of real estate who has a 1,000 square foot suite to be leased and says there's 2,000 feet in it – that's not honorable behavior and that's the way that term got into common usage. Nobody in his right mind would think depreciation is not an expense.

Warren Buffett: It's very much in the interest of Wall Street.

Charlie Munger: That's why they did it. It made the multiple seem lower.

Warren Buffett: What's amazing is the way it's accepted actually. It just illustrates how people use language and sell concepts that work to their own use. 2% and 20% has the same sort of thing. As long as it can get sold, it will get sold.

Charlie Munger: Now they use it in the business schools. That is horror-squared. It's bad enough when the thieves are using the term, but when it gets so common that the business schools copy it, that's not a good result.

RELOCATING JOBS OFFSHORE

Q. Good US jobs have disappeared. Should business consider factors outside of pure economics? If Berkshire asked for your approval to locate an operation overseas, would you do it?

Warren Buffett: The truth is in certain cases production that formerly had been in the US has definitely been supplanted by production that comes from other parts of the world. I was there when Fruit of the Loom was called Union underwear and bought by Graham Newman Corp in 1955 – it was probably all domestic then. The truth is if it was all domestic now, it wouldn't exist. We had the same thing happen with Dexter Shoes. It was a wonderful company with skilled workers. In the end, we sold the shoes at what they cost us, they were not competitive with shoes from around the world. Trade I would argue both ways, export, import. Massive trade should be and is actually enormously beneficial. Greater productivity will benefit the world in a general way.

The roadkill, the textile worker in New Bedford that will be put out of a job eventually, the shoe worker at Dexter to be put out of work. It would be no fun saying I'm doing this for a greater good so that shoes or underwear would be sold for 5% less, and the American public will actually never know. What you need is two things in my view. We have an enormously prosperous country. You have almost \$60,000 GDP per capita. That's unbelievable – six times what it was when I was born. We have the prosperity. That prosperity is enhanced by trade. We were only exporting 5% of our GDP back in 1970. I think it's around 12% or something like that now. We are doing what we do best. We need an educator in chief – logically the President, and I don't mean this specific President – I mean any President that has been around for decades - has to be able to explain to the American public the overall benefits of essentially free trade. Beyond that, we have to have policies that take care of the people who become the roadkill in the process. It doesn't make any difference to me as far as I'm concerned if my life is miserable because I've been put out of business by something that is good for 320 and some million people in some infinitesimal way, and it's messed up my life when I tried to live it in a proper way. We have got the resources to take care of the people. The investors can diversify their investments in such a way that overall trade probably benefits them. They don't get killed by a specific industry condition. The worker can't do that. You are not going to train a 55-year-old worker in New Bedford who may not even

speaking English in our textile mill – if they get destroyed by something that is good for society, they get destroyed, unless the government puts in some policies that takes care of people like that. We have a rich society that can do that and we've got a society that will benefit by free trade. We ought to try to hit both objectives of making sure there is not roadkill, and at the same time, we have 320 and some million people get the benefits of free trade.

Charlie Munger: We have unemployment insurance for that exact reason. I'm afraid that a capital system is always going to hurt some people as it modifies and improves. There's no way to avoid it.

Warren Buffett: Capitalism is brutal to capital if you're in the wrong business. You could diversify that result. Capitalism is brutal to people that have the bad luck to develop their skills for decades, but a very rich society could actually – if it's beneficial to society overall, they can take care of those people. The bill that was passed a couple of days ago reduces my taxes by 17%.

Charlie Munger: I wouldn't start spending the money.

Warren Buffett: I agree. Who knows what happens to the bill. If you polled a thousand people in Omaha that were walking through a shopping center as to whether my tax bill would go down by some very large sum because of what passed, I don't think many people would have the faintest idea of what happened there in terms of the coverage. We do have \$56,000 to \$58,000 GDP per capita, for a family of four that is \$230,000, but nobody should be roadkill.

Charlie Munger: Remember what Bismarck said nobody should have to watch. One is the making of sausage, and the other is the making of legislation.

Warren Buffett: Somebody ought to watch it.



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