

[Mohnish Pabrai's Presentation and Q&A at the Boston College, Carroll School of Management on December 3, 2015](#)

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Mohnish: Okay. It's very good to be with all of you. Arvind, I think this is our fourth year doing this.

Arvind: It is, and we're very grateful that I've had you for four years in a row.

Mohnish: Right. Anyway, I think I'd like to start by all of us giving a round of applause to Arvind because this is a very much labor of love for him, and a very much selfless act trying to help the next generation of value investors come up. Can we give them a lot of applause? Thank you for doing this, Arvind. How long are we to be going for today?

Arvind: The class is scheduled for about two hours, but we'll take as much time as you're willing to grant us.

Mohnish: Okay. We can go all night, right?

Arvind: Right. Arranging.

Mohnish: Okay. All right. What I'll do is, I have a brief PowerPoint. I'll go through just some thoughts I wanted to share and then we can open for Q and A. The Q and A can pretty much doesn't need to go into the PowerPoint. It can go into any subject that you want to talk about other than things that I currently own in my portfolio, because I prefer not to talk about them till we exit. But we can talk about past holdings or anything else under the sun, quite frankly. In fact, if I get questions that are new for me or curve ball type questions, then that's what I prefer because It'll help me from getting too bored. Let me get started here. Bubbles are very common. They're far more common than we think they are, and they occur in all kinds of different asset classes that occur in all kinds of different geographies, in all kinds of different markets and such at different times. They're kind of staggered all over the place. There was a book written by former news anchor for CNBC, Ron Insana. Normally news anchors don't write good books, but Ron Insana wrote a book called Trend Watching, which listed a number of different bubbles. If you just go through the book, you'll see that almost all the time, somewhere around the world, there's some bubble very much in the works, in progress, or getting burst and so on. They're very common phenomena partially because humans facilitate between fear and greed. As long as we have humans involved with markets, we are going to have

bubbles. I want to just highlight a few bubbles in the past and a little bit about the present. In the early 1920s, like 1919 to 1922, we had a very major automobile bubble. It burst in a significant way in 1922, but then the remnants were all taken out in the next nine or 10 years. If you looked at the US from an investor or entrepreneur point of view, and you were in the year, let's say 1920 or 1921, World War I have, has ended. A lot of the world infrastructure, especially in the developed world, is destroyed except North America is untouched. Europe is pretty much in flames, and the US is industrializing. It is an emerging market. You can clearly see that all the trends are going in the right direction. The population is growing highways and roads, again, getting built at a very prolific rate. Automobile sales are forecasted to grow quite significantly. I mean, if you look at what happened, let's say between 1921 and 1922, auto sales went up by 50%. That is rivaling what was happening a few years ago in China on auto sales. The US was truly an emerging market, and these were the go-go twenties. Everything looked like it would go nothing but go straight up. Investors basically had certain perspectives. One is, they expected that the US population would dry in 1921, the US population, or 109-million, and they were correct that the population rose nonstop for the next 94 years. Even now, when we are at 300 odd million, it's going to continue growing for as far as we can see just the way the demographics of the country are. They were right that you had a very long tailwind of population growth. Investors also expected that the country would industrialize. When the United States was formed, something like 97, 90 8% of the population then was focused on farming, and that number had been continuously coming down until the industrial revolution, and then it was coming down quite radically. People could see that the country's industrialized autos would grow big time. They were right. One and a half to two and a half million numbers, now this year, we are forecasted to have more than 18 million cars sold in the US. All these things were correct, but nearly all the 1921 investors in autos or motor companies lost their entire investment. This was a very major bubble at the time. If you go through some of the next few slides that are coming up, this is a list of all these different car companies, and next to their names is their year of birth and year of death. You have like the Stanley Steamer, 19, 1897 to 1927, or you have this Lafayette from 1919 to 1924. That car company lasted five years. We had hundreds of auto manufacturers come up with a variety of wide range of cars and lots of money went into these ventures. By the end the dust settled in 1932, we were left with pre-major US manufacturers for cars, and almost everyone else was wiped out. This was a very significant bubble that took place. Basically, it wasn't just investors. I mean, a lot of entrepreneurs bought into this, and a lot of a lot of these companies went public. Then they went bust after going public. We had a very significant bubble about a century ago at about 90, 93 or 94 years ago. If you look at the 1959 to 62 period, we had another very significant bubble. This is called the Tronics bubble. What was happening at this time was that you had the semiconductor that had been the transition been invented, semiconductors had been discovered. Moore's Law was coming into play, and people expected that electronics would be a major game changer. It would

reconfigure a wide range of industries. They're right because Moore's Law has, basically where you are doubling the number of transistors in the same amount of area every couple of years, or every 18 months, has pretty much been the case almost nonstop from then till now. I think now, Moore's Law is down every two or three years, but we are still seeing that trend play out. As a result of that, we've had a huge growth in computers, going from mainframes to minis, to servers, to PCs to laptops. Then we had all the cell phones and iPhones and iPads. If you look at it, basically 60, 65 years, 66 years, electronics has grown nonstop. Investors were correct in 1959, that electronics was a sunrise industry, and it would change lives big time. But in spite of being correct, just like the people in the motors were correct about the trends they lost the entire investment. In fact, what happened in in the early sixties is all these companies came public with the name ending intron, like Astron, Dutron, Vulcatron Transiton, or they had Onics like Circuitronics, Supronics Videotronics, and the ultimate was one with both Powertron, Ultrasonics. They wanted to make sure that when they had an IPO, they had sizzle in that name. That was a very sizzling name, and I'm sure people bought into Powertron Ultrasonics. It all went to zero. That also did not go very well for investors, even though they were right about the major trends, and absolutely right about the huge transformational impact that the semiconductor and transistor would have and continues to have. Some of you are probably too young but I certainly lived through this. Arvind, how old were you in the year 2000?

Arvind: You're putting me on the spot Mohnish.

Mohnish: Yeah. How old were you in the year 2000?

Arvind: I was in college.

Mohnish: All right. College. I got like an eight-year range or something, six-year range. Arvind very much remembers the dotcom bubble. I think many of you in the room, if you are in your mid-twenties or so on, this would've been, what about when you were about 10 years old or something? Maybe some of you were teenagers then. But anyway, I was an investor then and lived through this as well. We had the dotcom bubble, and again, the investor expectations were that the internet was a game changer. It was a massive disruptor, and they were right. It had improved our lives big time, and the economy would get reconfigured, and they were right. We are still going through that reconfiguration, and it's a very significant reconfiguration, but nearly all 1999 investors in dotcoms lost their entire investment, didn't it? It didn't go so well. If you look at some of the names, like boo.com, they spent 188 million in the first six months, Kozmo, which has no relation to Kramer, was trying to do one-hour deliveries and so on. We had a long list of companies that basically went under. Here's a list of some of these companies which were bought. If you look at something like Broadcast.com, which was sold by Mark Cuban to Yahoo for 5.7 billion. Cuban was smart. What he did is, when Yahoo gave him Chinese money, also known as Yahoo Stock for Broadcast.com, he negotiated and

hedged the entire position. After that, when Yahoo Stalk crashed and burned, Cuban was mostly unaffected. Hence, we see him on Shark Tank now. If you look at Mark Cuban's present net worth, I was just looking at it in the Forbes 400 recently, it's less than 5.7 billion, it's like two or 3 billion now. From that time till now, he's done all these different things, bought the NBA team, made a bunch of other investments and so on. But his net worth hasn't done much, I think the single best decision he made was to hedge Yahoo stock. Everything else is wonderful. Then you even see IAC interactive buying Ask.com for 1.9 billion. You look at some of these other deals that Yahoo has done, GeoCities for 3.6 billion. You look at the state of Yahoo today and all the talk about now selling the company. There was a lot of euphoria at the time. In fact, in the year 2000, in January, I was on the HBS campus. I used to come to Harvard Business School every year for a week as part of this executive Ed program where we do all kinds of like a week of MBA school through YPO. There were about 160 of us every year for a week. The average person ran a \$400 million company. I did this for 13 years from 1999 till last year. One evening we would hang out with the MBA students, so there would be eight YPOs and eight Harvard MBA students, and we'd go out for dinner and basically, we'd sit, YPO MBA, YPO, so on both sides of me, for example, were two MBA students. I remember in that year, in January 2000, the bubble was fully on. I mean, it was just full on at that time. It popped up in March. All these kids basically had mostly already formed companies. Some were dropping out of HBS, they didn't want to wait to complete their degrees. They were getting venture funding. Some of these companies coming out of the HBS campus had, I would say, pre-money or post money valuations, which were in the hundreds of millions. These guys were on top of the world if you will. That year, when they went to dinner with us, the body language was that they felt like they were wasting their time with a bunch of these old guys who just didn't get it, about the internet, didn't get it about the way the world was being reconfigured and all of this. They were all talking about how in two years, they were all going to be billionaires. A couple of years later, again, on the HBS campus, going to dinner with the MBAs, and the economy is in a kind of recession and so on, and I would say the body language, is very different. They were giving business cards. They were asking if they could get internships and so on and so forth. Life and times changed fast. What you had going on was that there was a chemical, Chem Dex was formed then, which was supposed to be like this marketplace for industrial chemicals. They were all these other Dexes being formed on HBS, on the Harvard campus with like looking at other aspects of industrial materials. There was the metals exchange, there was all kinds of stuff going on, no paper exchange and so on and so forth. There were all the squatters trying to, which still goes on today, get the name and sell it for a zillion dollar and so on. It was a fun time. Anyway, if you look at these three bubbles, the three bubbles are very similar to each other. The motors bubble, the trionics bubble, and the dotcom bubble, each of them are about 38 to 40 years apart. The 38 to 40 years apart is not a coincidence. The reason they that far apart are because the set of investors that saw this bubble must have exited the scene before the next bubble can take

place, because then, there's nobody to tell them that, "Hey, guys, you guys are smoking dope". We've seen this movie before, and I remember that when the internet bubble was going on, Buffett would talk a little bit at that time about the motors and the trunks bubble, but he was just drowned out. In fact, most of the talk at that time was like, "what's wrong with you, Warren? You're not in these stocks". Berkshire stock has dropped a lot, and so on, and so forth. I would not be surprised if the next one is in kind of the 2030, 2036 to 2042 range. Who knows what the theme is going to be, then it could be transport companies taking people to Mars. We don't know. If it is something like that, transport to the moon or transport to Mars, then all the investors at the time are going to look at these previous three bubbles and not see any similarity between these three and that one, because they're going to say, "Well, this time it's different". The last one's different, but we are getting a whole new planet. We have a different set of things to worry about. Most of you will very much be I guess 40 something when the next one comes around, and you will know how to sidestep it or like Mark Cuban, heads the hell out of it. Just to continue this discussion a little bit more like I said, bubble, the very common, they don't just happen every 40 years. They are happening all the time. In the early seventies, there was this notion called Nifty 50 where these banks and trust companies had come up with the idea that you just buy great businesses at any price, and then you hold them forever. If you do that, you end up doing well. There were these 50 blue chip companies, companies like Disney, McDonald's, Coca-Cola, Kmart, Xerox, digital Avon, and so on. Since everyone wanted to buy these stocks and hold them forever, they went up to ridiculous multiples, you know? If you looked at the PEs in 1972, McDonald's was at 86 times earnings, and Disney was at 82 times earnings. Polaroid was at 91 times earnings and, and so on, so forth. These things became very popular. The market basically was a bipolar market. You had very high valuations on these top 50, and then you had kind of the rest of the market kind of getting ignored. Then we had the crash of 1973, 74, and of course in 72, 74, what happened is that we had the Arab oil embargo. We had for the first time in the United States rationing of gasoline and long lines of the pump, and people not able to get gas. We had a president who had imposed price controls, and we had the impeachment of a US president for the very first time. You had a whole bunch of different factors coming in and in fact, what happened with the Nifty 50, in fact, the crash of 73, 74 was worse than the 1929 crash because the 1929 crash took place over a short period of time. This was a very slow-motion crash. It took place over two years, but if you look at the end-to-end drop from top of 73, the bottom of 74, it was a huge, I will say something more than I think a 60% drop in stock prices over that period. The Nifty 50 initially, people followed the advice, which is, you hold these stocks forever. All these earth-shaking events were taking place, and the market started dropping, but the Nifty 50 stayed intact because people kept with it. Then as the bad news just kept coming in, the Nifty 50 was taken out, back and shot one by one in the world, in the words of a Forbes columnist. 90%, 80% drop in prices of these blue chips like Disney and Coke and so on. That was brutal. The Nifty 50 didn't work out so well, and if you look at things today, in

my opinion, we have another Nifty 50 going on today, and it's more amongst sliver of the tech space where you have, I think Amazon's more than 576 times earnings. Now, it might be more than 600- or 700-times earnings. Then you have Netflix, I think also north of 200 times earnings two, Twitter, Facebook, Tesla doesn't make money. If they made money, they'd be at over a hundred times. Solar City would be at 250 times. Uber, with a one of a 50 billion last round or so. In fact, interesting thing about Uber is, its valuation is one sixth of Amazon. If you thought Amazon is a fair value, then one would question whether one six is the correct number for Uber. But basically, investors aren't focused right now on the valuations. What they're focused on is, they believe that these businesses will be transformational long term in terms of how we conduct our lives, and they'll be very much very central to our lives. Therefore, they're interested in going into these spaces. Of course, one of the ways that bubbles get going is that when people start seeing prices go up, they feel like they're left out. They want to join that party before kind of the train leaves the station. I remember in 2000, I was living in Chicago, and I think it was late 99, early 2000, I was in downtown Chicago, and I got into a cab, a lot of the cab drivers were Indian and Pakistani in Chicago at the time. This Pakistani cab driver, he noticed that I probably was from India or Pakistan. He says to me, in Urdu, Apka Cisco ke bare me kya khayaal hai? For the sliver of you that didn't understand that what he was saying is that "what are your thoughts on Cisco as a stock?" When the cab driver is focused on high-speed data networking stocks in the year 2000, it is like the shoe showing boy in 1929 giving you stock tips. Of course, Cisco never Star saw that market cap again. They were at 600 billion at the time, and they'd never seen that again. These companies and you know, we have a polarization going on, just like Nifty 50 right now, where you have these slivers of these tech stocks that are valued very richly. Then even the older techs, once you get to things like Oracle or Microsoft or any of these other companies or even Apple and Google et cetera, they have very sedate valuations. Then when you get to kind of old economy stocks today, like if you look at the banks or look at normal manufacturing company, again you might even say they're undervalued. Because what happens when you have these bubbles is, the money is being flushed into one area. Of course, right now, one of the issues that investors face is, on the fixed income side, there's no money to be made. Investors would normally be on a fixed income, are very frustrated, and then they see this kind of highflyer. I suspect some of that fixed income money is heading this with this way, which is a huge amount. I also suspect that money that would normally go in the rest of the stock market is being kind of disproportionately funneled this way. Basically, if you just look at Tesla, for example. I think the market cares about 30 billion now. They have a 4 billion revenue run rate. They're losing about 400 million a year. You can argue that a business like Airbnb or Uber is a capital light business. It's a tech business. Tesla is a manufacturing operation with its manufacturing in one of the relatively higher labor cost areas of the planet. If they want to grow, they have some very significant Capex. One could argue that an Airbnb or something, which is Capex lite, deserves a rich evaluation than a Tesla, which would, if they tried to

increase from 50,000 cars a year to 200,000 cars a year, for example it would take tens of billions in Capex to get there. Even if it made an 8% profit, the PE would be over a hundred. The best car companies make about 7%, just to give you sense. Then, just to see how the money is moving from old economy to new economy, we have General Motors which has a market cap if you take out that cash at a little less than less than Tesla. Tesla makes, like I said, less than 50,000 cars a year. GM has nearly 10% of the global auto market and makes one nine or 10 million cars a year. It's a rounding error for GM terms of what Tesla makes. They're the number one car company in the US and China, I mean, one in five and a half cars sold in the US is a GM car. Similarly in China, they're number one. They may get 10 billion in cash flow that's heading to 12 or 13 billion aggressively buying back stock NOL's shielding most income. People get excited about Tesla for the electric car. GMs got the Chevy Bolt coming out next year. It has a 200-mile range, pure electric, \$30,000, and Tesla would not have a car equivalent to this till at least 2018. GM's two years ahead on this, but because it has a name, General Motors, nobody cares. You just see this kind of huge divergence in these valuations between kind of old and new economy. You can also see it when you look at something like Netflix and Micron technology. This is a quote I took from David E's second quarter letter to partners without talking to David. I hope he doesn't object, but he says, "our long-term outlook is that sometime in the next few years, Micron technology currently where at valued at 20 billion with 3.7 billion in trailing net income will be work more than Netflix". Currently we are at 40 billion with 240 million trailing that income. Of course, Netflix now is at 44 billion in Micron is at like 15 billion. If you ask Reed Hastings, the CEO of Netflix about the stock price, his answer is to me, he does not understand why Netflix stock is trading while trading. The second thing to understand about Netflix is while they have a little bit of their own content, more than 99% of what they're pumping through is other people's content, and other people's content is subject to inflation and subject to all sorts of other factors because content is king. Netflix has, even if you grant them that they have the pipe, what goes through the pipe must be paid for by them to these content owners who aren't exactly, I mean, you've seen that even in the cable business, the content owners versus the pipe owners. You constantly have the struggle. When Netflix is charging eight bucks to me to come in my living room with unlimited content, and they must on the back end pay for that content you know, it's not a business model where you can say, "are the \$8 \$7 this profit". That's just not the economics. Then of course you've got all the technology costs and all the bandwidth costs where some of the internet service providers are complaining about the bandwidth and the usage. Again, Netflix is a fantastic business, an extremely well-run business. All of us love it. We get a lot of value out of it, but none of that means that the talk is going to be a winner. Another way to think about this, to invert, is to use Charlie Munger's inversion logic. Charlie Munger says, "You can solve many problems by inversion". In Word, let's take something like Amazon which I love, probably spend too much money on every month on Amazon, but Amazon has a market cap of I think 320 or 330 billion or something today. If you are an

investor today in Amazon, it would mean that you're expecting that market cap to go up from today, because why else would you put money into Amazon unless you were expecting robust growth from your out, and let's say if you were an investor with somewhat modest expectations of maybe 15% or 20% a year, if you owned Amazon, well, if you had a 15% expectation, then what your expectation would be is that every five years a stock would double. Over the next 20 years or something, Amazon would need to be 600 to about 2.4 trillion 600 million after five years. No, more than that. 1.2 trillion after 10 years, 2.4 trillion after 20 years. Yeah. It'd be about 5 trillion in 20 years. If you think about the entire wealth of the planet, first, the entire US stock market cap, all stocks, including Amazon today, is about 20 trillion. You are expecting that the rest of the pie would not grow so much. The one company would be 10 or 20% of the US economy. Global wealth currently is close to about a hundred trillion. Again, look at the percentage versus global wealth. Global wealth is not going to grow from a hundred trillion to 15 or 20%. It might grow at one or 2% a year or something. When you do math, the law of large numbers of kicks in. Count me as a sceptic on the 5 trillion valuations of Amazon in 20 years. Inversion is a good way to solve some of these issues. Then we have this chart which shows the number of public companies, the p over a hundred. In 2000, we had over a hundred of them, and now we have about 80 of them. This is that whole Nifty 50 of 2015 where most of those 80 companies are these, Amazon type highflyers. Anytime you've gotten high up there, you've seen that you've kind of come back down and that maybe another data point to look at. On March 10th, 2000, which is the day the NASDAQ peaked, Berkshire Hathaway hit a multiyear low of 41,000, its price was cut in half in 1998. In fact, what was happening is that the money was going from people selling Berkshire to buying all these different new economy stocks. Of course, I started Pabrai Investment funds in 99, and we didn't have any of the high flies in our name. We did very well in the first year of the funds, including past the Wing burst, we were up 70% because we were buying these companies that were very cheap because no one was interested and such. When the bubble burst, we had no impact on what Pabrai Funds were doing. If you look at the NASDAQ composite, this is an index which has made over 2200 stocks. The total value of the index is 7 trillion. The total value was about 2 trillion. I think Arvind, if you mute, we'll get rid of better audio. I've muted you. I'll unmute you later. Anyway, we've got 2 trillion in valuation in 2002 and 2009. Currently the top 10 businesses in the NASDAQ composite make up 2 trillion. The top 10 make up 31%, and the top hundred make up 5 trillion. Amongst the top hundred, you have the Facebook's and the Amazons and all of that. You have 2100 stocks that are worth about 2 trillion, and you have a hundred names that are worth a hundred that are worth 5 trillion. One more thing I'd like to just point out the Nifty 50 in '73, '74 add some tech names. They had Xerox, Polaroid, Kodak Digital IBM and so on. With the sole exception of IBM, all the tech component of the Nifty 50 pretty much disappeared. I mean, almost all the value was lost. That is because, like Buffett says, rapidly changing business industries are the enemy of the investor. The ones that have stayed, even though they didn't deliver a good return, have been

the non-tech, the kind of the Coca-Colas and Disney's and such of the world. They have endured. Today, when you look at the Nifty 50, it is all tech, and it is all in the areas of rapid change. It is questionable whether, the 1970 to Nifty 50, it's 43 years since that peak of the Nifty 50 and Coke is still with us, and Disney is still with us, and so on. Many of them have made it through. But if you look 43 years from now, which would be 2000 what would be 43 years. 2068, I think. 2068, if I were a betting man, I wouldn't bet that in 2068, we have Netflix around, I mean, that'd be a tall order to make that bet just because of the reconfigurations and such that take place. That's a second piece of the difference between those two. The other thing about these two, the first set of bubbles we saw were 40 years apart, approximately 38 to 40 years apart. The last Nifty 50, and the current one is 43 years apart. You're seeing about, let's say 37 to 43, you're between these mega bubbles, and it's again, the same thing, which is none of the investors who are coming into Amazon and Uber and all that today have any memory of the 1973, 74, 50 50, never lived through it. Don't even see the parallels. My lone voice in this will just get drowned out. No one's going to care about what I'm trying to say here. That's just the nature of things. NASDAQ composite, of course, went from 5,000 to 1200. The current situation is not as extreme as 2000. That was a very extreme situation, and it's hard to predict what would happen. It could flat line for a long time, or it could correct in a short period or anything in between. But the best advice I could give is just to stay away from the highflyers, look at other places and we will see a little bit of different situation play out. What happened to the Nifty 50 in seventies, in 73, 74 is, we had these kind of huge macro events take place. Like the oil embargo, the big lines outside gas stations, the price controls, huge inflation, impeachment of a president, the Vietnam War. A lot of things are going on. What is happening right now is, it's happening quietly, I think they're being taken out, back and shot, one by one. I don't have a slide on GoPro, which I love as a camera. I'm sure many of you have a GoPro camera. Look at the stock chart on that. When you look at that peak valuation on GoPro, what are people thinking? Yeah, it's a Nifty camera, but what would it take to one up GoPro and what is the situation with GoPro in 2068? It's not going to be around. I mean, there's no chance. What we are seeing is like, if we are seeing the shakeouts happen one at a time, like the My Space of the world are gone, Twitter's now at 40% less than peak valuation living social, which was like Groupon had a four and a half billion-dollar valuation at the last round.

They were going to go public; they went public. They've gone from 4,500 to 800 employees in the burning cash square IPO to less than 50% of the value of the last venture round, which is very unusual. These unicorns that people talk about, which are private companies with over a billion-dollar valuation, they're the 141 unicorns currently with a combined value of 500 billion. Many are going to be real businesses for a long time, but I wouldn't expect most of them to deliver the goods for investors. I think with that, we are at the end, and we can now unmute Arvind up for Q and A.

Arvind: Wonderful Mohnish. Thank you. That was great. I'll just turn to the students and see who wants to ask the first question. Maybe I'll start with a quick one while the students are warming up here. You spend a lot of time talking about preparing for another Nifty 50 situation, and it's hard to disagree with that assessment at all. But many valued investors right now are clearly suffering within that context. I'd be curious to hear how you cultivate the right temperament during these potentially multi-year periods where the market is telling you you're wrong and how you build that sort of patience and level mindset during those periods.

Mohnish: Yeah, that's a good question. Let me just mute you. I think that's a great question. We've seen this before. Like, for example the Sequoia Fund when they first started, I think for the first five years, they lag the indices. Of course, they did quite well after that. In fact, the situation we have at Pabrai Investment Funds is, we have something similar because we also are lagging our benchmarks over the last five years. I've always told investors that that's the period in which they should judge me. I kind of feel strange when I go to them and say to them know that yeah, you should judge over five years, and add a but to it, because then that's kind of moving the goal post. It just becomes somewhat difficult. What I did this year when we had our annual meeting, I presented a kind of a summarized version of this to investors just to give a context about one of the reasons why we may not exactly be hitting it out of the park right now and just requested them to be patient. Of course, I think we've got an exceptional investor group at the Pabrai Investment Fund. I haven't seen that many of them want to leave their seats or anything like that. It's worked out. But yeah, I think for me personally, if I ignore the investors, it's a non-event in the sense that I'm not concerned with what markets are doing. It's all about the inner scorecard as Charlie Munger talks about. It's not worth focusing on the outer scorecard if you will. There it is. I had to stop sharing, so now I can see all of you quite well. That's very nice. We have a few more humans that have shown up, which is great. Hopefully they're not crashing your class because this is only for your class. But anyway, I think it's more about Charlie Munger and more about inner scorecard, where you basically focus on what we think are the most important thing and not focus so much how the world looks at you focus on how the reality of what you think the world is all about. I have always had a natural temperament and tendency to do that. In fact, like when we had the financial crisis, and at that time, Pabrai Investment funds were down close to 70% in 2008, and of course, the markets were down, or less than 40%, like 37 or 38%. We did much worse in the market at that time. Part of it was dumb errors on my part. Part of it was just that some of our stuff got beaten up more than it should have. My wife never realized that there was such a big change in our net worth or in Pabrai Investment Funds or 70% being down is a lot. But quite frankly, you know the way I look at life is very simple, which is that if wealth is lost, nothing is lost. If health is lost, something is lost. If a character is lost, then everything is lost. Right now, the entire presentation is very sophomore because we are only talking about the first variable. When we are

going, Arvind has a talk which will focus on health and character instead of just money.

Arvind: Well, I'm hoping that's the reason we're going to rage Mohnish.

Mohnish: Okay.

Arvind: That's the way.

Mohnish: Okay.

Arvind: Mohnish, we've known each other for a long time, and I've always been a huge admirer of your ability to be levelheaded. For what it's worth, we were very fortunate to talk to David Inor before thanksgiving and he had the exact same philosophy. It's so wonderful to see that just the strong character of these great value investors. Other questions, please. Yeah.

Student 1: Thanks for joining us tonight. Just one quick question. Some of the other investors that have come in have mentioned that to avoid bias during idea generation, they want almost to be in a silo so that they're not affected by mob mentality or some bias. Could you just speak to the dynamic of your idea generation at the firm and what's the protocol that you go through the idea generation?

Mohnish: Okay, yeah. Maybe I can translate that question to be why didn't we invest in Valiant with all the other hedge funds? Is that what you're asking? How can we march marching to our own drummer? Well, I think that independence of thought is one of the most fundamental things in investing. I call myself the shameless cloner and cloning is a very good thing. It's good to borrow ideas for Mindhorn and company, especially since they're free. But I think that's the starting point. After that, you must basically run it through a set of very independent filters in terms of things like, is it within your circle of competence? Do you understand the business? What is it worth? What are the risk factors, running the checklist and so on. I have found it useful to have conversations with Guy Spier. We do that as well. I think you must have strong conviction. You must have independence of thought. That's just the most basic requirement for being a decent investor. Did I answer your question?

Student 1: Yes, and I was more inclined on the internal idea generation. You mentioned with Guy Spier, so just how you bounce ideas around, comes to ideas along. Then we'll go into a room and talk about it.

Mohnish: You know by the time we get done with this talk; you are going to have a relatively low impression of me. I have no internal ideas. I'm only focused on ideas generated by Mindhorn and Company. Please make sure you mention that to David next time and thank him for me. I haven't had an original idea for a very long time, and I did have an original idea a few years back which is called Horse Head Holdings. But we'll discuss that at another time.

Student 2: Are they crossing? Yeah. Mohnish, can you talk about how you said you generated a lot of ideas from Mindhorn you were looking team from share and other investors. Can you talk about how you balance different people's strategies because each person is fundamentally a little bit different in how you sort of generated your own strategy from those investors?

Mohnish: I think the important thing is, one is when you're going to clone someone, what you want to do is, you want to focus on their biggest bets. Ideally, you want to clone people who don't have 60 positions in their portfolio, or if they have 60 positions, then the top 10, maybe make up half or something and ideally focus on their largest position. The first rule of cloning is, "look at where they have put their money and use that as a starting point to getting a name on your radar". It's a very simple exercise. The first question you ask yourself is, is this within my circle of competence? Most of the time the answer is no. Then you're done. If it is within your circle of competence, then you ask yourself. If you think something is within your circle of competence, then you know what it's worth. Then the second question is, if you take what it's worth and divide it by two, is that above or below the current stock price? In most cases, the current stock price is not 50% below what we think it may be worth. Then you're done as well. Then that idea also is rejected. You get to the small sliver where you believe it's in your circle of competence, and you believe if it's at a very significant discount or intrinsic value, where it's more than half off. Then it's time to start reading and educating yourself further in the business. Sending an email to Guy Spier, giving him a heads up that he can start reading as well because he's twiddling on his thumbs waiting for me to send an email, and then he goes into action reading. We figure out with our independent reading, what I think and what he thinks and what the checklist thinks, and so on and so forth. Then figure out position, size and so on. That's basically how we go about it. You're looking for factors which will eliminate things from your desk. We are not looking for a reason to invest in, we're looking for a reason not to invest. As soon as they find the reason not to invest, we can take that off the data.

Student 3: Mr. Pabrai, thank you for joining us today. Can you speak a little bit about your portfolio of construction? What's the largest industry? What's the shortage position? How much cash pool up that thing?

Mohnish: Yeah, sure. Typically, this has gone through a little bit of change over time for me, but when I first started, I used to run what I would call a 10 by 10 portfolio, where if I made a bet, it would be at 10% of assets, and I was looking to have kind of like a 10-stock portfolio if I got fully invested. Then in my shell shock state after the financial crisis, I changed that, we were seeing so many ideas, such many ideas come through that I went through investing in baskets. Like there was a commodities basket that made sense because we had just such a wide range of companies that were so mispriced. At that point, I changed to having 2%, 5% and 10% positions where 2% would be either an asymmetric bet where there was a huge upside, but also somewhat elevated downside. Kind of like the Freddie Fanny preferred, if you will. 5% would be more where there was

a good amount of conviction, and 10% would be where absolutely felt like this was a serious idea and had it had to put the maximum amount. The maximum we invest at any given time is 10% of assets. So far, we have not trimmed a position because it has grown, because I don't want to cut the flowers and water the weeds. I'd rather water the flowers and cut the weeds. We have some positions that have become a much larger portion of the portfolio because they've appreciated and such, and that's perfectly fine. My preference is always like the 10%, but we do 5%, and sometimes we'll do 2%, and cash, basically, the idea is that the first 75% of the portfolio gets invested in doubles where we see at least a 2X possibility. Then the next 10% focus on triples then maybe the next 10% on four X's, and the last 5% of five X's. Basically, the idea is that as you get more compelling ideas, you're willing to go deeper into it. For example, during the financial crisis at the absolute depths of the financial crisis, it would make no sense to hold cash. You want to get fully invested at that point because you've just got pretty much the best possible playing field to put money to work. Subsequently, as those positions get sold off or get full price, then your cash will build up again and so on. That's basically how we try to run that.

Student 3: In your book, you talk a lot about risk and uncertainty. Can you talk about how you distinguish between risk and uncertainty at Pabrai Investment Funds?

Mohnish: Arvind? Can you repeat that? I didn't fully get it.

Arvind: The question was how do you disentangle risk from uncertainty?

Mohnish: Risk and uncertainty are two different things. One of the things that works to the advantage of investors is that markets hate uncertainty. Markets will punish companies which have uncertain outcomes. It's always fun to play these uncertainty games. Let me give you a real example which is in my portfolio right now. There's a company called WL Ross and Company; the ticker is WLRH. It was set up by Wilber Ross, and it's a blank check SPAC company, basically, where they raised 500 million and pretty much all the cash is sitting there. They must do a deal in a couple of years. If they don't do a deal in a couple of years, then the cash comes back to investors. In fact, the unusual thing about the Wilber Ross company is that even the investment banker underwriting fees get refunded in the event the money is sent back. The guys who did all the work for the IPO and such, most of that will come back too. Basically, the company has pretty much \$10 a share in cash, and the stock is at \$10. In fact, we bought it any time it went below \$10. In fact, we usually bought it below 9.97, so that even with commissions, we were below \$10. We were buying a dollar bill for slightly less than a dollar bill in that case. Wilber Ross is a tremendous value investor. It's at a deeply distressed value. The uncertainty in that stock is, we have no idea what business Wilbur Ross will invest in, or what industry he'll invest in, or what the economics of that investment will be. We also don't know whether he's going to fail to make the investment, in which case the money comes back to us. There's a lot of uncertainty in that stock. But when you look at risk, the risk is, for the most part, non-existent. Today, there isn't much risk

because you've got cash against what you paid. How would you lose money? Well, you would lose money if Wilber made an investment that ended up being a bonehead investment where it turned out to be terrible. The batting average of Wilber Ross is so good that I would say that the odds that you have a significant permanent loss of capital in an investment that he would make is very low. There's another ticker with the same stock, which is WLRHU, which gives you a share of the stock and gives you the option to buy another half share, I think the equivalent of \$11 a share or something. That has a kicker in it as well. This is an example of risk being low, uncertainty being high, and markets not liking that. Right? There was another company I had invested in a long time back. In fact, this was the first investment I made when we first started Pabrai Investment funds in July 99. It was called Silicon Valley Bank. Silicon Valley Bank was and still is a bank in Silicon Valley, very well-run bank that mainly makes kind of asset back loans to venture back companies. But the unusual thing about them is that usually when they make those loans, they also get warrants attached to those loans. In Silicon Valley, if you're a masseuse at Google, you're going to get stock options. Nobody raises any eyebrows. Your banker says, "Hey, I made you a loan. Can you give me some stock options?" Even the waiter at Il Fornaio thinks he should get his tip in stock options. They had, in July of 99, hundreds of stock options in hundreds of these dot coms, and they had no disclosure around those. Now, the bank was profitable and doing well, assuming those warrants were worth zero. In the valuation that was being given to the bank, there was no value being ascribed to those warrants. People didn't know which companies they had, they didn't know how much they had, and they didn't know what the strike prices were. There was no disclosure. But the idea is that it was all about zero. The lowest price it could be is zero, and the odds were high with this huge bubble that was being fueled. I was looking for a way at that time in 99 to get the upside with the bubble without the downside. What a beautiful way to play that bubble with Silicon Valley Bank, where you get the base bank, which is solid, and then you have this unknown moon shot applied to it. I think we had a three or four X in Silicon Valley Bank in a year that we held it. What happened is, a few months after I bought the bank, I started to realize that they had gobs of assets in these warrants. I think those sedate bankers probably decided that they didn't like to see all that sitting there illiquid. As soon as they were able to, when these companies went public, whatever, they started unloading those warrants. As they unloaded that started to hit the income statement, and as it started to hit the income statement, and they decided to give disclosures, the stock started to react and such. That was another example of upside without downside, where you go with uncertainty and risk was low there. Risk is low with WLRH and uncertainties high. It's a good arrow to have in your quiver.

Student 4: Can you talk about a past's mistake or give an example, and then how you use that going forward in the future to decide?

Mohnish: There are so many mistakes because, even the best investors are going to be right two out of three times, and I'm far from the best. We have a long list of mistakes. Let me think of a juicy one to talk about. There're many mistakes. Like, for example I used to have an investment in Sears and of course, the thesis was, and in fact, even the people who invested in Sears today, the thesis is that their real estate holdings alone are worth multiples of the stock. You have a huge underlying set of assets, which is significantly above the current market cap I remember, I think this was in June of 2009. I had lunch with Charlie Munger, and it was the first time I had lunch with him. This was a lunch that Warren Buffett had set up. I went with my wife, and I just thought it'd be like one of these social lunches and I could tell Charlie how much I admire him, and so on. Charlie had come with a printout, he doesn't use a computer, but he came with a printout of Guru Focus, which listed my portfolio which his assistant must have printed out for me. He opened it up and he pointed to Sears. Then he said to me, "Mohnish, I noticed that you own Sears". He did this (shakes his head). Anytime you're talking to Charlie Munger, and he does this, what you do is as soon as that meeting is over, you dump the entire position, okay? Because you don't need any more indicators that you are out there without a paddle. Charlie said to me after he finished shaking his head, he said that, "Warren and I were in the retail business with diversified retailing in the early seventies". They bought these department stores in Baltimore, and he said they were very lucky to be able to sell those stores almost approximately what they bought them for. In fact, one of the only times when Berkshire has sold a wholly own subsidiary, they've had subsidiaries go to zero, get closed down like Berkshire Hathaway Mills, but typically when businesses aren't decline or whatever, they just run them down. The sales are few and far between. They've sold that. Of course, he pointed out to me that Sears, between the real estate being liquidated and that cash coming to investors, there were more than a hundred thousand employees in all the stores. If any of you have run a business before, anytime you must let a person go, it is a gut-wrenching thing to do. If you must let a person who is incompetent go, I have no problem with that. Sometimes that's good for you and the person, they can find a better calling in life. But if the person is being let go for no reason other than that the business is doing poorly, that is terrible because they didn't do anything wrong. They're doing their jobs well. Sears has a hundred thousand of those people. If you were to go in and want to monetize that real estate, you'd have to get rid of the people. No matter how stonehearted you are, that is an extremely difficult gut-wrenching thing to do. What we have going on, and of course, this has been six years since Charlie got me out of Sears, and the good news at that time was in June 2009, everything else was still depressed. Even though I took a loss on Sears, I forget what we bought, but I'm sure we made multiples and whatever we bought at that time. Thank you, Charlie, we're most appreciative. This is a situation where I had ignored this very basic fact that liquidation value can be an illusion, because especially when businesses have people and all these sorts of things, I think even Eddie Lampert realizes that he could monetize a real estate, but I think he realizes how difficult a gut-wrenching job it is to just turn

all the switches off. What we have going on at Sears is liquidation in slow motion. They keep shutting a few stores. Of course, what is happening at the same time is the economy is reconfiguring, stuff is going to Amazon, more and more stuff is going online. They are not in a steady state model. In fact, even the value of real estate, one can argue maybe going down because what is the value of a shopping mall in an Amazon world? You have issues along those lines. That's one mistake. If you would like to talk about more, I have an endless stream of mistakes to talk about. We have mistaken out the yin and yang.

Arvind: Other question?

Student 5: Thanks for speaking to us. My question is how is the collection process, like you have been investing since 1999? How had it changed from 99 to now?

Mohnish: Let me just make sure I got the question correctly. I guess the question was how has the way I invest changed between 1999 and now? Is that correct, Arvind? Okay. Alright. Yeah. One of the good things about investing is, we are in a different place than Kobe Bryant. Our beloved Kobe has hung up his boots now and did you like his poem? I liked his poem. Kobe said, "My heart wants to play, my soul wants to play, and my body's just not there". The good news about investing is, we only need this portion of the body to work. In fact, one can argue we probably only need this portion, maybe even just this portion to work. That's all we need. They just need things like this much; we don't need any hands or legs or anything else. I'm sorry to say, but Kobe may have picked the wrong vocation, because he needed the whole body to function. We don't need the whole body. We just need a tiny, I'd say I probably need like 2% of my body weight. If I had about 2% of my body weight, I think we could function just fine. The good news is that until 2% is functioning well, we can keep doing what we are doing. The other good thing is that unlike Kobe who may have peaked a few years back, the good news is that I haven't peaked yet. My best investing days I think are ahead of me. What a wonderful concept. The beautiful thing about investing is all knowledge is cumulative. You sit down for lunch with Charlie, and he beats you on the head with a two by four about buying Sears. Yeah, it hurts at the time, but then you get a little bit better the next time you see one of those. You're that much faster at saying no to that. You start seeing more things. I would say that one of the best things about investing is that we all start off with this brain, which has horsepower, but doesn't have any content. We start off with horsepower with no content, right? What Warren and Charlie have been doing is dumping content into that brain at a very intense rate. Even if we don't do it at the rate, they have done it with, as long as you keep pumping content in and synthesizing that content, and lattice vocal mental models, you're going to keep getting better and better over time with how you look at the work. The best thing you can do is never stop learning, always keep reading, turn off the iPhones, and focus on just dumping as much stuff into your brain and ideally dump it into your brain from either, Munger says that publication like Forbes, Fortune Business Week, economists have encapsulated a lot of stuff in a few pages. That is concentrated input into your brain. Read all of

those, read the New York Times, read the Wall Street Journal, the Financial Times, put all those in, and then look for great authors because they spend three years or two years writing a book. That's fine. You can put all that content in your brain in a week. The idea is to keep pumping content in. The idea is to keep learning from other people's mistakes, that's even cheaper than your own. But of course, even if you make your own mistakes, then those get seared in more. Over time, what is going to happen is you are going to keep getting better because you know more, and you've seen more, and you've understood more. Munger shares about Buffett that he is still learning and he's still getting better. I would say that the difference between the '99 Mohnish and the 2015 Mohnish is, the 99 Mohnish had more hair, and we have a little less hair now, but that's okay. It hasn't taken away from the critical 2% body weight. That's important. The 2015 Mohnish has taken several arrows in the back, which have taught him a few lessons, which is great, and learned a lot from other people's mistakes. Like I learned from Valeant, for example, right? I never made an investment in Valeant, but when Munger made those comments were Valeant and he compared them to ITT I bought because I didn't know much about that guy, Janine. In fact, I have a book here. I bought this biography in Janine, and it's called the Sovereign State of ITT. I mean, this book was written in the sixties or something. It's out of print, but I think it would cost me like 99 cents on Amazon. The price was right, and thank you, Mr. Bezos. I enjoyed reading that because I read the ITT biography on Janine, and then I could understand kind of what is going on with Valeant and all of that. That was like free entertainment from the cheap seats. It was great.

Student 6: Thank you so much Mr. Pabrai for speaking to us tonight. You were talking a little bit about your circle of competence as newer investors. What are some tips on improving our circle of competence or expanding it?

Mohnish: That's a great question. What Buffett says is that the size of the circle is not relevant. Knowing its boundaries is critical. What he means by that is that let's say, this was your circle of competence. You just kind of understand a very tiny sliver of businesses, right? You are not at a disadvantage if that is the case. I know that may seem counterintuitive where having like such a big circle of competence versus this small, how can they be? But Charlie Munger gives the example of his friend this guy John Arrillaga, and John Arrillaga is on the Forbes 400. I think he's worth the two 3 billion after having given away several hundred million to Stanford. All he has done is he has invested and developed real estate within one or two miles of the Stanford campus. What is John Arrillaga circle of competence? John Arrillaga circle of competence is not even real estate, it's not even real estate in California. It's not even real estate in California, in Northern California or in the Bay Area. His circle of competence is limited to a few square miles of real estate, and that's it. What he has done is he's understood the dynamics of that area, and he's only put all his energies into that area. He's made a fortune doing that. Munger goes on to say that if you lived in a small town, and you'd never left that small town, let's say you were in

Peoria, in Illinois, and you grew up in Peoria, Illinois and you just were there all your life and so on, and you feel like the whole world is around you and you don't know anything. He says that if you invested in the Ford dealership in Peoria, Illinois, and you invested in the McDonald's franchise in Peoria, Illinois, and you invested in the best apartment building in Peoria, Illinois, and you invested in the best office building in Peoria Illinois, and you did nothing for the rest of your life, you had those four investments and you don't even need to own the whole thing. Part of a McDonald's, part of a Ford dealership, part of the best apartment complex and part of the best class office building. The key is you bought those four at the right time, at the right price, right? Then you just sit on your ass and do nothing for 60 years or 80 years, and you're done. There's no need to even enroll in Arvind's class because he's sadistic. Let me just tell you, he wants to make you work hard for no reason. All you need to do is move to Peoria, Illinois, make those four investments, and you can say goodbye, Arvind, I don't need you. Circle of competence can be very tiny, and that's perfectly fine. I'm sorry, Arvind, that they won't be coming to class anymore.

Arvind: Well, there's not much class left. I got a lot of value out of that while we had it. But just on that topic, Mohnish, you've been investing for 15 plus years. At this point, what do you feel is firmly in your circle of competence?

Mohnish: Yeah, that's a good question. I would say that I'm not very good at industries with rapid change. I think in general I would stay away from those because I just don't think I'm good at figuring out where those are headed and so on, so forth. I did make an investment in Google, but I think that's a little bit different in the sense that just the way that companies configured, and the pricing was pretty good and such, so, and it was a small investment. Hopefully it will work out. But I would say that the main thing I look for are no brainers. I feel that the best investments, the ones that are squarely in a circle of competence are ones that are simple to explain to someone in three or four sentences. I mean, let's say, the WL Ross investment now, WL Ross may go outside circle of competence. Once he invests the money, that's when the work would start. That's when we'd have to evaluate whether we are in or outside the circle and figure out whether we want to stay in or stay out of that game. But I would say that at the time the investment was made, it's a very simple sort of economics or making that, I think I understand commodities quite well in terms in terms of commodity producers being in the lowest quartile. I've learned to gain a better understanding though I'm still not there on the power of brands and the power of intangible assets. I'm getting there. I'm not fully there yet but there's still hope for me. One time I was having dinner at Charlie Munger's place, and the good news after lunch was that he saw fit to invite me to dinner and we weren't even at his club. We were at his house. I felt like I'd died and gone to heaven. I'm sitting with Charlie in his study with a big portrait of Samuel Johnson on the wall. As we were about to go to the dining room to start dinner, he just made a casual comment, he says that "a good investment operation

needs to focus on just three things. The cannibals, the cloners, and the spinoffs". Then he just walks off taking his seat. I said, "wait, Charlie what did you just say? What do you mean by the cannibals?" He said, "Oh, the companies that are eating themselves, the ones that are buying back stock, and of course the cloners I'm all about the cloners". He said, "buy ideas that other people have invested in". I was very happy that the shameless Cloner got an endorsement from Moses himself for his cloning techniques. That was great. Of course, the spinoffs, we've got Green Black's book. You can be a stock market genius too, which is all about spinoffs. That gives you all the reasons why spinoffs make sense. If you look at Berkshire's permanent holdings, all the permanent holdings are cannibals. American Express, Coca-Cola, IBM, I don't know if IBM's permanent, but it's large Wells Fargo. They all aggressively buying back stock, and they're being aggressively buying back stock for decades. I didn't appreciate how powerful cannibals are. Just like brands, one of the things I have is, I have this thing which I started a holding company last year called Dhandho Holdings. One of the things we are working on is we're working on launching an ETF, hopefully next year. That ETF focuses on these three areas. It is an ETF, which will do cannibals, cloning, and spinoffs. I spent about six months doing all kinds of back tests with a very talented crew on this. I've spent more time than I would like to admit on cannibals. It's incredible what kind of performance and what kind of outperformance you get versus the indices with the cannibals. The learning continues. I would say that I'm always looking for no brainers. I'm looking for undervalued businesses. I'm looking for simple businesses. I'm looking for things that are easy. I mean, like, we made an investment, we still own the investment about three and a half years ago in Fiat Chrysler. At the time we made the investment, Fiat Chrysler had a market cap under 5 billion. I just found it incredible that a company doing over a hundred billion in revenue at a market cap of under 5 billion, and they are just spun-out Ferrari. Ferrari has a market cap of 10-billion, Fiat sells 5 billion cars, and Ferrari sells 7,000 cars. They took a very small sliver of the business and spun it out. The small sliver of business being spun out is at two x valuation that the market had priced the business at three and a half years ago, and the rest of the business is still there. If you were to ask me if autos are within my competence, I would've told you before 2012 that yeah, maybe I understand them, but it's such an ugly business, I'll never invest in it. Here I am deeply pregnant with the auto business. I think staying flexible keeps it simple. Go for no brainers, keep reading. Don't focus too much on expanding the circle. It'll expand on its own by osmosis and that's it.

Arvind: Just go returning to that comment from Charlie Munger, can you touch upon how Buffet and Munger Cologne was that part of their repertoire? It's well known Accountable and the spinoffs and like, Phillips 66, for example. Are they sort of cloners too? Were they in their younger years?

Mohnish: That is an excellent question. Warren doesn't talk much, he's kind of like a poker player, I remember one time I was in his office with Guy Spier, and we saw a

book on his desk which is the Japanese company handbook. It's basically like a value line, but it lists every single Japanese talk and a half page push talk in English, right? It was folded over like he was reading it and Guy, and I had been looking at Japanese net-nets, and I'd looked at that book and subsequently found that I could do the same thing in Capital IQ a lot faster. We had found a bunch of companies that looked like pretty good companies. When we were in the office with Warren, there're these companies that we found through Capital IQ, and these are the names. Then Guy picked up the book and he started leafing through to find those names to tell, kind of dog Ear and Mark for Warren that these are the names to look at. Warren is just kind of an observing guy, randomly goes and dog ears his book without asking any permission or anything. While we were going through the whole process, some of the good companies were at the back, towards the end of the book. Warren said, yeah, it's always that the good stuff is in the end, we got to keep leafing through to get to the end. But he was a poker face. He didn't let us into any data on whether he was going to look at those companies or not look at those companies or any of that. Then one time I sent him a stock tip. I was very excited about this company, and I wrote him a note that this is something he might want to look at because of a large gap for Berkshire's portfolio. I never heard back, which is fine, anytime I send Warren notes, I never hear back. That's kind of par for the course. But later, when I was talking to Charlie Munger, Charlie Munger says, "Hey, that company you sent to Warren, he spent an incredible amount of time on it". I said, "he did?" He said, "Yeah, he did. Then when I saw Warren the next time, I said, "Let me ask him directly". I said, "Hey, Warren, I sent you that company. What did you do with that?" He just gave a one sentence answer on why he rejected it. He gave no data to me that he had spent a zillion hours looking at it or any of that that was just kind of under the radar. I think that Warren has done some cloning, like, I think Tesco was bought by Elu Simpson, then he bought it for himself. I think Precision Cast Parts was bought by Todd Coombs, and now he's bought it for Berkshire, the whole company. He will look at stuff, I saw that that one stock at sent him. He spent some time on it and so on. I think Charlie is probably more open on that front. I think Warren probably is more of, I want to do the work. He may take it as an input, but he's very independent in his thought. It's not going to have a huge bearing on him. But I think that cloning is a very powerful tool because someone else who's smart has gone through all their filters. We've talked about this before Arvin, but you can go bowling two ways. You can go to a bowling alley and bowl with bumpers and all. You can bowl without bumpers. The last time I asked Arvind the question, Arvind if you go to a bowling alley and all that mattered was the score, would you bowl with bumpers or without bumpers? I think last time, Arvind may have given the wrong answer. Let me ask him again. Arvind bowling alley, and we are bowling for the highest, how should we bowl?

Arvind: I'm very grateful that we record all our conversations. Cause if you review the last conversation, you will observe that I said I with bumpers change, I don't

like, the same way you don't like businesses with rapid change. My answers don't have rapid change either. It's the same answer.

Mohnish: Arvind, when you go to a bowling alley, do you bowl with or without bumpers?

Arvind: Yeah, I'm not a big bowler. Are you a big bowler Mohnish?

Mohnish: I'm a Midwestern blue collared American.

Arvind: Of course, wonderful.

Mohnish: I'm from Illinois.

Mohnish: Bowl on my way to picking up the McDonald's dividend.

Arvind: Wonderful. Other questions? Yeah, please.

Student 7: One of the things that we've talked about to other investors is what their take on the impact of management of a company. What do you investigate? Do you talk to management extensively or does it matter from case to case when you go up to stock?

Mohnish: Yeah, I think that's another great question. There is no point talking to management because, first, management matters a lot. Of course, just like brands and cannibals, I have learned the hard way to appreciate high quality management, ultra-high-quality management. I put a lot of weight on it now, much more than I did in 99, for example. But I think that you're not going to get too many insights about management by hanging out with them. The average public company CEO is likely a great salesman. If they weren't great salesmen, they wouldn't have gotten that job. If you go meet a great salesman and he's talking about a subject that he knows everything about, and you know nothing about, you cannot be anything but impressed. There's not much that's going to come out of that meeting that's going to be helpful to your long-term investment success. The average public company CEO is a very honorable guy, a person you would be happy to have your daughter marry, but not a person you should be hanging out with to understand whether you should buy the stock or not. I never try to meet managements I've never tried to reach out to them. In some cases, they have reached out to me and I've told them not to waste their time because there's not much to come out of that better off focusing on running the business. Knowing the nature of management is very important. You can know that by looking at the long history, ideally of what they've been up to and what they said and what they've delivered versus what they're saying they will deliver in the future. You're better off looking at the past and extrapolating on your own independently what you think they'll do in the future, versus trying to go by what they are saying they'll do in the future while they ignore their past. As I look at my portfolio today, I find that it is very rich in high quality managements versus even five years ago or 10 years ago. That's one change I notice. I'm very happy about that. Going back to the WL Ross,

Wilber Ross company, Wilber Ross is an exceptionally value investor. You're getting a very high-quality person at no premium upside without downside. It's a very nice confluence of factors, so I think that yes, if you put in your checklist that you want to have high quality management in addition to everything else, that criteria will not hurt you.

Student 8: The ability to generate profit companies, different economic declining as well.

Mohnish: Can you repeat that, Arvind?

Arvind: Sure. Broadly speaking, correct me if this isn't a fair representation. What are the sort of attributes of economic modes that you value? There is a second part to that, which is, do you think about those modes differently in a growing business versus a declining business? and a business that is sort of flattish?

Mohnish: Okay. Yeah, that's a good question. I think the evaluation of moats is probably one of the most difficult things. When I talked to Guy, and I remember recently we were talking about some company, and it looked very compelling to me. I told him, "How would you compare this to Nestle, for example?" His perspective was, "there's no comparison", Guy thinks Nestle is bulletproof, it's going to be there forever and they're going to keep taking more and more share in emerging markets and so on. Then I asked him, "how does this compare to Viterbi, which is a small UK company that made cereal and such?" Of course, he's very high on Viterbi. Moats are extremely important. I think the evaluation of moats is not the easiest thing. It takes time and some, I would say, Lattice work type thinking about in many ways to try to get to a sense of what those moats are, how enduring they are and so on. I think that the expanding businesses or the shrinking businesses or the flat businesses, well, you must look at it in the context of the actual business. I would say this, that other things being equal you are better off investing in businesses with huge runways ahead of them. Again, this is a cha shift I'm going through, and I've been going through how many years between buying assets cheap versus buying assets that are going to appreciate a lot in the future. You're always better off buying assets that are going to appreciate a lot in the future. In Munger's words, paying up for them, you end up better. To give you one example, I think Tom Gayner used this example recently. He's from Markel. We talked about the Nifty 50 in 1972, and we talked about how it got decimated. If you invested \$50 in the S and P 500 on the day, the Nifty 50 peaked in 1972, that \$50 today is worth \$2,800. It's gone up a lot. It's gone up almost like, 5,000, 6000%, a huge amount of gain in that period, doing nothing, just sitting on the S and P right? Now, Tom Gayner says that if you invested \$3 in three of the Nifty 50, he said, let's say you put a dollar in each of the Nifty 50, and now you took just three out of those dollars, which means three of the companies out of the 50, the three companies in the \$3 you invested, assume 47 went to zero. The three companies that were part of the Nifty 50 today are worth more than \$2,800. This is worth more than \$2,800 by buying it at the peak. You went through all the valleys, you went through the 90% declines, you went through all of that, but because you had a

stomach of steel like Arvind, who eats his oats daily, you just, with strong fortitude, held onto those stocks through 87, through 73 through 74 through all the crashes, through the dotcom, through the 2008, you held it all with your steel stomach. You had like \$3,000 from the \$3 became 3000. Now, I like Tom Gayner, but I take a little question with his analysis. The little question I have is that there's a controversy where Walmart, Walmart was part of the Nifty 50 or not, and one of the three that he includes is Walmart, right? According to me, Walmart should not be in the Nifty 50 because in 1972, it was not a blue chip, it was a very small company. But Tom Gayner's point was that if one of those 50 companies was Walmart and you put a dollar into Walmart, you could have a 96% or 94% error rate means 94% of the portfolio going to zero and still beat the S and P. He makes another point. We all know about the salad oil crisis in the 1960s where Amex got hit a lot, and then Buffett bought Amex when it dropped a lot because of salad oil crisis. He put 40% of his fund, and he made a killing. Tom Gayner says, let's say you were the schmuck who bought Amex one day before the salad oil crisis hit, okay? You put money into Amex in 1962 or 63 whenever that crisis hit, but one day before peak price, and next day it drops very heavily. You held from that time in 1962 till today, you did not touch Amex. Of course, Amex now is at \$70 a share. It went down to \$10 a share in 2008. It lost a lot of its value in 2008 as well. But he says that if you held on and you compared it to Buffett buying at the 40% discount, and assuming Buffett held till today, and you compared the annualized return that you had versus the annualized return Buffett had, the two are going to look very similar. In fact, the more time that goes on, those returns are going to converge, even though there was a big difference in the buy price. The lesson in all of these is that if you bought great businesses, and this is why the Nifty fifties and these bubbles get going, because some Pundit like me says, you buy a great business and doesn't matter, right? But that's not what I'm saying. All I'm trying to say is that between buying a cheap business, buying between buying a fair business at a good price or a good business at a fair price, you should always prefer the good business at a fair price, and this is another lesson that I've been learning over the years, where in 1999, Mohnish was a cheap skate investor. In 2015 and much more tuned to, value management can add value, that go moats can add value, and that enduring moats can add. I think that the subject of figuring out moats is a tough subject. I mean, we saw with the Nifty 50 in 72 that the Polaroids and Xerox and Kodak didn't make it. I mean, there was nothing visible at that time that would tell you that there was no chin in Kodak armor. They had patents out the yin yang, they controlled film. They had a monopoly in film. I mean, pretty much, they owned the whole market. Same with Xerox, literally, they own that market, and look where we are today. The nature of capitalism is creative destruction. That is the best part about capitalism, creative destruction. It is very difficult to find moats that will not get destroyed over time. It's an exception to find a moat that will not get destroyed. The question is on enduring moats at great prices where the rest of humanity doesn't understand that there's a moat.

Arvind: I think we're moving toward that direction. But perhaps, I could pause and ask a quick question, which is, you spent a lot of time studying mistakes and a lot of time studying Buffett's great successes. Have you spent time studying other successes? Do you think that's an important part of your process? Or is it because of the asymmetric nature of investing where, if you go down 50%, you have to double to get up back to your original investment that you've spent your time focusing on the mistakes and your view on the study of successes as less important?

Mohnish: Yeah, that's a good question. I think mistakes are part of the investment landscape. Warren and Charlie both try to spend a lot of time reducing mistakes, and that's a good place to spend your time. But they also spend a lot of time on great moats and things that they haven't touched for a long time. The best thing you can do, the single greatest I would say skill set you can bring to bear as an investor is patience. Extreme patience. If you are a guy or girl who loves to watch paint dry, you will be a great investor. Arvind, does your class love to watch paint dry? How many people love to watch paint dry? Please raise your hand. We got one paint dryer out there, man. I also want to let you know, Arvind, that I did not get the memo about the coat and tie. Next time, please send the memo. I don't think your class got that memo either.

Arvind: Hear that. I was saying the next, never mind.

Student 10: Do you still think that probability that great ideas?

Arvind: Kelly formula?

Mohnish: I'm glad you brought up the Kelly formula. The Kelly formula was a mistake on my part. I should never have put it into my book. I should have never talked about it. It works if you are doing 5,000-coin tosses, where you're repeatedly making bets with no nuds. I mean, if you had heads was 51%, tails were 49%, and someone allowed you to do 5,000-coin tosses, and you got to pick heads, that'd be great to use Kelly formula to set your bed size and all of that. But in investing, at least the way we practice investing, you're making one-off bets. It's not like 5,000-coin tosses, so it doesn't apply. In hindsight, I realize that if I were to ever do another version of my book or another edition where the odds are low, I would acknowledge that and take that out. Don't worry about the Kelly formula unless you are in some kind of situation with the ability to make a lot of bets or with odds in your favor frequently.

Arvind: Maybe we can close with any parting thoughts that you might have. In the room, we have a broader array of students from MBA finance majors. Any advice that you would have for them as they think about their career?

Mohnish: Yeah. The advice I have, because I'm a cloner, is I would just clone the advice Warren would give you or Charlie would give you, which is to focus on going to work for people you like, admire and trust. One of the things, if you unpack what Warren says: like, admire, and trust. When he says, "go to work for people

that you like, admire and trust”, notice that he doesn't talk about what the comp is. He doesn't talk about whether the company is a blue chip or not, a start-up or not. It's about the people. You must go work for people and with people that you would truly enjoy working with, if you were not getting paid. I think that should be the criteria. The second thing, again, what Warren says is that don't put things off, in his words he's saying, that's like saving sex for old age, not a good idea. Basically, don't say “I'm going to work three years at Goldman Sachs, then I'm going to get my MBA, then I'm going to go do X for three, four years, and then I'm going to start a fund, and then this, and then that”. Since we have all night Arvind, I wanted to tell you the story of this very stressed-out investment banker. There's this guy in New York who's an investment banker working like a hundred, 120 hours a week, totally burnt out, just flaming out with this intensity, and he's of course making a lot of money, but he is just stressed out beyond belief. He does some research, and he finds this little, tiny Mexican fishing village which is in a very remote part of Mexico where there is a small, one room resort and no humans, he'd be the only guest and there's no one around for miles. He said, “that's the place for me”. He goes over and he books himself for a week at that place to recuperate from New York. In the morning, he gets up and he notices that there's a hut just off the beach. (Have you heard this story before? No. Yeah, I know. All my stories are original) He sees this Mexican guy in this hut, and this Mexican guy pulls out a small little canoe, and he takes it out in the ocean. Then he is gone for like an hour and a half, and he comes back with two fish, and then he makes a little fire, cooks one fish and then, that's his lunch. Then he goes and takes a nap, then he wakes up in the evening, cooks the second fish, and that's his dinner. Then, he's just hanging out in his heart, goes to sleep. Then the next morning, the banker notices again in the morning, the guy wakes up, takes his board, goes out in the ocean, gets the two fish, comes back again, cooks one fish, takes the nap, second fish, and after three days, the banker can't take it anymore. He goes and talks to the only human he can, which is the Mexican fisherman. He says that “when you go out in the ocean, could you catch more than two fish?” The Mexican fisherman says, “Yeah, the ocean is full of fish. I can catch a lot more fish”. He says, “why don't you cash catch more than two fish?” He says, “I only need two fish. Why would I need to catch more than two fish?” The banker says, “Look, if you catch more than two fish, then you would have some extra fish. You would only eat the two fish, but you could sell it in the market, then you'd have some money. As you keep getting these more fish and you get more money, what you can do is, you can get a second boat and hire a guy, and he's going to go out in the boat and fish as well, and he's going to catch a bunch of fish too. Now, you'll have more fish because you'll pay the guy, but you'll have some leftovers, and you'll have more to sell in the market”. The fisherman says, “then we are going to keep doing this, and of course we are going to have a fleet which is going to be bringing this fish, but then we are going to vertically integrate. Instead of selling the fish on the market, we are going to set up a canning operation. We are not going to let those comebacks take all the margin by doing the canning themselves. We are going to do the

canning. We are in this great part of the country, we're going to create a great brand, and we are going to have this organic fish and all this stuff, and we're going to can it, we are going to send it out all over the world". The fisherman says, and then, I'm going to take you public, I'm your man, I can take you public, we can do an IPO, and then you're going to have lots of money and great life and such. He says, when you want to take a vacation, you can come here and hang out, and the fisherman just looks at him that he's already there.

Arvind: Great story, man. I do think you've told me this story, but it's such a great story, Mohnish. I do think you've told me this story, but so many layers.

Mohnish: One of the things I wanted to share with the class is don't be like the banker, be like the fishermen. Think of life in terms of the essence of life and the essence of life is, yeah, there are some fundamentals. The first essence of life is that bankers have forgotten that life is finite. Okay? It's not infinite. The second essence of life is that, like my dad used to say, we come to this world naked, and we leave this world naked. No one's taken even a pin with them. Basically, whatever we get in this world is going to get recycled back in one way or another. We don't know how long we have been on earth. We don't know how we'll leave. The best thing you can do is not defer things into the future but take it into the present like the fishermen has. Always keep the basics in mind, which is, we live in a country where no one's going to starve. Certainly, none of you're going to starve. None of you're going to be homeless. None of you are ever going to have difficulty making ends meet. Once your basics are covered, it doesn't make sense to pursue careers or go to work at companies or go to work for people where you are questioning the quality of stuff, right? If you're not high quality all the way, then you should make a change and hit the reset button and go from there. I think that's about it.

Arvind: Mohnish. That was so wonderful. Thank you so much for all the effort you put in each year into teaching the class. We're just incredibly grateful. Thank you so much.

Mohnish: I would just say that this was a great way to spend the last couple of hours. Thank you.

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