

Mohnish Pabrai's Lecture at the University of California, Irvine (UCI) on June 7, 2017

Yang: All right. Welcome everyone. Today, we're very fortunate to have Mohnish here with us at UC Irvine. He is the Managing Partner of Pabrai Investment Funds, which manages 535 million. If you had invested a hundred thousand dollars in Pabrai Investment Funds in 1999 when they started, it would be worth a little over \$1.1 million today. That's in contrast to if you had invested in the market, you'd have about \$285,000. In 2014 Mohnish founded and raised \$150 million for Dhandho Holdings, which is an insurance-focused holding company. Last but not least, he is the founder of Dakshana Foundation which provides educational opportunities to impoverished but talented children worldwide. Please join me in welcoming our guest for today, Mohnish Pabrai.

Mohnish: Thank you, Professor Yang. Well, it's great to be back. Just maybe a quick show of hands. I'm not sure how many of you were here last year. Maybe just raise your hand. We've got a brand-new audience. Good. We can reuse the same jokes. That's great. Some of you might have seen the talk on YouTube where we focused on coke last year. This year we'll try to go further from there because the Coke Investment at Berkshire Hathaway came from some of the lessons they learned from See's Candies. The Purpose of See's Candies in 72. But we'll go further back from there into the mid late sixties, and then kind of take it from there. There are a number of rich lessons in some of the journeys that some of these folks took over the years. I think that can be applied to the likes of you as you embark on your careers, whether or not you become full-time investors. I think it's always good to understand a few things about investing in allocating capital. I'll go back to the, forties, fifties, sixties, there was a company called S & H Green Stamps. Most of you probably were not born when the S & H Green Stamps were thriving. Maybe not even your parents were users of them, cause of quite a way back. But the S & H green stamps were really the precursor to, what today, we think of as airline miles. It was a kickback mechanism to get loyalty into particular merchants. For example, if you went to a grocery store and you spent \$50, they would give you one of those stamps for every 10 cents that you spent, and then you'd stick these stamps in these books, and then you could redeem them at various stamp centres for a variety of things; toasters, tennis, rackets or whatever. A wide range of things you would buy. With humans, kickbacks work and they worked in the fifties, sixties, and seventies, and they worked today. I mean a lot of the way I decide which credit cards I use and so on and so forth, is determined by the miles and the deals that we get probably similar to most of you. But Green Stamps had a policy that in a particular geographic area, let's say, for example, Irvine, if one particular drugstore offered green stamps, they

wouldn't allow competing drug stores to offer it. They kind of created some exclusivity, and it also tended to direct business towards the drug store that carried and offered these stamps. The drug stores or the grocery stores were not happy about this. What they did in response, because they understood that the loyalty programs actually boosted sales in California, nine different grocers got together and created something called Blue Chip Stamps. Blue Chip stamps basically said we are going to allow anyone who wants to offer these stamps, to offer them any merchant. We are not going to have these exclusive type deals. These nine grocers basically owned Blue Chip stamps. There were a lot of small merchants who felt like they were kind of shut out of the profit streams that came out of the ownership of Blue Chip. They felt like, "Hey, we want to own the mothership. We don't want to be giving you money every time we get a bunch of stamps to give to our customers". They sued Blue Chip for basically saying, this is kind of antitrust and it's kind of collusion, all these things. In the early sixties, that kind of lawsuit wound its way through the court system. By 1966, the court agreed with the plaintiffs that they were right and that Blue Chip should be more equitably held by all the merchants who offered it. What they forced the company to do was to offer ownership shares of Blue Chip stamps to all the merchants who were kind of purveyors of these stamps, if you will. They gave it to them in proportion of their volume in the last year. There was a market created for Blue Chip stamps. As a result of that market being created, Blue Chip stamps started trading on the OTC exchange, you could actually kind of buy or sell shares of Blue Chip. There's a gentleman, Rick Guerin, who was an early partner of Charlie Munger and Warren Buffett, he kind of, (in LA when he was reading the newspapers), noticed that all this stuff was happening with Blue Chip. He looked at the stock price. Rick is a very good value investor, and he thought that the price that the stock was being offered was quite compelling. He brought it to the attention of Warren Buffett and Charlie Munger and they looked at it as well. But one of the nuances about Blue Chip is that every time the merchants gave these stamps to various buyers of groceries or drugs, whatever else, a certain percentage never got redeemed. They kind of go to the back of the drawer, or people just forget about them, and so on, and so forth. The Blue Chip business was very much like the insurance business in the sense that with insurance, you collect premium bought dollars today, and then the claims come in sometime in the future. Sometimes, you can be playing claims even 20, 30 years after you've taken the premium in. But in the case of Blue Chip, it was kind of like traveler's checks where people gave you the money today. Sometimes those travelers' checks may not be cashed for a year or two years, three years, or never, because they get lost. People never claim them, and so on and so forth. Blue Chip had float, just like insurance companies have float. But one of the things about the Blue Chip float was, there was a portion of the float that I would

call permanent float. If you look at the kind of chart behind me, you see how the revenue of Blue Chip is going down because it peaked current towards the late sixties, and then after that, it kind of started losing its appeal. But you can see the float is multiples of the revenue. The reason for that is that, a certain percentage of the float is permanent in the sense that I don't have the exact number, but I would guess something like 5% of the Blue Chip stamps that were issued never, ever came back for redemption. In fact, my friend Alex, is sitting there with a whole bunch of these blue chip stamps that never came back from redemption. As a gift for you guys coming today, he's going to give you some stamps. Keep one packet for yourself, and then pass it on to your neighbor, if you will. There's about approximately \$50 or \$60 million of these stamps which are now gradually making their way through Etsy and eBay which never got redeemed, Okay? In 67, when Rick Guerin looked at this company, the company had about 50 million in equity which was like the book value of the company, the stock was trading at 40 million, and they had approximately a hundred million of OPM other people's money that they were holding, which was the float of Blue Chip. Out of that a hundred million, my estimate is something like 50 million of that was never when we redeemed. That was kind of like, found money. Basically, you were able to buy a company with a dollar of assets for 40 cents. It was available very cheap. When Rick Guerin brought it to the attention of Warren Buffett and Charlie Munger, and they looked at it, they said, Yeah, this is great. But they also noticed that the way the Blue Chip float and equities were invested was useless. The people, these grocers who were on the board didn't have a clue about investing. They knew that they had to basically in effect take control of the company and then get control of the investing. What they did is, from 1967 to 1970, over three year period a number of different entities like the Buffett partnerships, Warren Buffett, Berkshire Hathaway, Wheeler, Munger Partners, Rick Guerin, and then an entity called Diversified Retailing. All these entities together invested about 24 million, and they got 60% ownership of Blue Chip, and they got control of the company. First Charlie Munger went on the board, then Rick Guerin went on the board, and then Warren Buffett. There were all three of them on the board. Then they took control of the investment committee and sold everything that these guys owned and started to kind of redo everything. One of the things that happened when they took control was one of the entities, they bought about six and a half million, about approximately a little more than 25, 27% of the 60% was a company called Diversified Retailing. What happened is that Warren Buffett, a guy named Sandy Gottesman, was on the board of Berkshire Hathaway now, and Charlie Munger formed this company called Diversified Retailing. 80% was owned by Buffett and the workshop, the Buffett partnerships, 10% by Gottesman and 10% by the wheel among the partnership. They had raised five and a half million of debt with the help of Goldman Sachs to buy retail

operations. Actually, they bought a department store in Baltimore. What ended up happening with the department store is they realized it was a mistake, and they were very lucky about two or three years later to be able to sell it for what they bought it for. But then they had raised this debt, the debt didn't have to make confidence, and they took the six and a half million that originally was meant to go to the department store, and they put that into Blue Chip as well. Basically, there was about 18 and a half million of equity, and about five and a half million of debt that went in. It became the 60% of Blue Chip they controlled, and Blue Chip with this 24 million they invested had over a hundred million of float. It had another, 40, 50 million of equity, that's a lot of assets that they got a control of without spending that much money. Then what they did was that in '72, See's Candies came up for sale, and they took 25 million of Blue Chips float, and they bought See's candies. I told you about 50, 60 million of the float was never going to be called back because people were never going to. This was kind of the free money. They had about 50, 60 million of free money. They took 25 million of the free money, bought this candies. Then a year later, there was a savings and loan that was trading well below liquidation value. We're sitting at half a book value, Wesco Financial where they again invested about 25 million, bought eventually about 80% of Wesco again, using the float money from Blue Chip. Then in 1977, the Buffalo Evening News, which was a newspaper in Buffalo, came up for sale. That was bought for about 33 and a half million. From like '72 to '77 See's Candies had generated quite significant retained earnings about four 5 million a year. They used the retained earnings of See's Candies plus some more float from Blue Chip, and they bought the Buffalo News, and then the Buffalo News ran into a lot of trouble. They had five or six years of losses. I think they lost about 12 or 13 million. All of that got covered with the earnings from See's Candies. They had a lot of union problems. They had strikes, then they got their competitors sued them because they started a Sunday paper to compete with the other paper in Buffalo. They went through a lot of turmoil for five or six years of the Buffalo News, but by 1982, everything had settled down. The competitor had gone out of business, and in '82, their earnings were 19 million pre-tax. On a business they bought for 33 million five or six years data, you were making almost half of that. In a few years, the Buffalo News was making 50 million a year pre-tax. It became a nice home run. When you look at what happened with Blue Chip stamps with these three companies, with See's Candies, Wesco Financial, and then the Buffalo News, you had about the original 24 million in effect gave you all these three businesses. Then in 1983, they merged these businesses into Berkshire Hathaway, and that's how Charlie Munger got to owning one and a half percent of Berkshire Hathaway. Sandy Gottesman also got a significant portion and so on. Every 13 shares of Blue Chip in '83 gave you one share of Berkshire Hathaway, which is now around a quarter million or so. The

60% of Blue Chip that costs about 24 million is today sitting at about 60 billion. It was a very significant increase. But when you look, I told you that about five and a half million was debt when they raised from Diversified retailing. The group that put the money in from diversified retailing so every dollar you put into Blue Chip between 67 and 70 today is worth, \$2,500. But every dollar you put in through diversified retailing is worth \$18,000. Which is why we got a bunch of billionaires out of all of this. That was basically the interesting saga with Blue Chip and the original business, Blue Chip, itself went to almost immediate decline. It had revenues of about not a hundred million in the late sixties. By the late seventies, those revenues were down to about 20 million. Further down, I think in the eighties, it was down to 10 or 20,000 before they basically shut down the company and such. Then all we have are the remnants, the stamps that all of you've got. But another interesting thing that happened then was that they bought Wesco Financial as a very cheap asset for 25 million. It was probably worth 40, 50 million in 73. Almost nothing they did with Wesco moved the needle that much. It wasn't such a great investment. But in 1988, 14, 15 years after they bought Wesco, the government had set up Freddie Mac, and they were going to allow public ownership of Freddie Mac shares. Fannie and Freddie were up and running, but they only allowed SNL to save the loans to buy Freddie Mac shares. You had to be an SNL to buy Freddie Mac shares, and any SNL could buy savings alone, they could buy up to 4% of the Freddie Mac shares outstanding. Wesco owned mutual savings, which was the savings alone, and they maxed the 4%. They invested 71 million into Freddie Mac shares. You make this investment in 73, you do a few things, and nothing really moves the needle much. 88, you make a single investment, 71 million. In the year 2000, they sold the Freddie Mac investment. They sold it for 1.4 billion, which went up 20 x plus, they had another 600 million in dividends, so it became 2 billion. Then that money in 2000, if you moved it to Berkshire at around that time, you would have something like a four x on that. 70 million becomes something like 8 billion. The key lesson with all of these stories, if you think about it from the late sixties to the late eighties for the most part with these different investments, they made five decisions. There were five meaningful decisions, so approximately a decision every four or five years. The five decisions were taking control of Blue Chip, buying See's Candies, buying Wesco Financial, buying Buffalo News, and finally, the investment in Freddie Mac. Few bids big bets and very infrequent bets. If you think about what transpired with all these different bets is, there's a wonderful quote by Charlie Munger, which encapsulates this really well. I'll just read it. It says "a few major opportunities clearly recognizable as such will usually come to one who continuously searches and waits with a curious mind, loving diagnosis involving multiple variables". Then all that is required is a willingness to bet heavily when the odds are extremely favorable using resources available as a result

of prudence and patients in the past. The key mantra is this few bets, big bets, and infrequent bets. That's I think, is one of the very core tenants of value investing. But there's another aspect to this, which shouldn't get lost in the middle of all this which is none of this came painlessly. In fact, it came with a lot of pain or as I would say, no pain, no gain. Charlie ran the Wheeler Munger partnership, which was like a hedge fund at the time. In 1972, 94% of the fund was in two stocks. 61% of the fund was in Blue Chip, and 23% was in something known as a New America Fund. Let me just describe the New America Fund for a second, because you understand what's in Blue Chip, because in '72, Blue Chip basically had a market cap of well under a hundred million. But it had all these assets with the float and such. The New America Fund which was a closed end fund was actually originally called the Fund of Letters. A bunch of flamboyant businessmen with the help of some brokers raised about 60 million. The brokers took about 10% of that to raise the money. Off the bat, the investors lost 10%. There was 54 million left in the fund, and then they started to invest it and they didn't do a very good job of investing it. What began as \$10 a unit and then because the quality of investments are so bad, that fund started trading at a significant discount to underlying intrinsic value. If you look at, I don't know if you've discussed closed end funds. If you open Barron's, or even just go Google closed end funds, you'll see the thousands of these funds where unlike typical mutual funds or ETFs they've raised a fixed amount of money. After that, they trade like stocks. Sometimes you get a variance between the assets in the fund and the trading price. It can either sometimes trade at a premium, and sometimes you can trade a discount, and sometimes the discounts can get pretty wide. One can actually build a nice little career out of, in effect buying closed funds and waiting for them to kind of get back on track. But the Fund of Letters had dropped quite a bit in value and well below the underlying assets. Charlie Munger and Rick Guerin bought enough of the units to get on the board and then take control of the fund. Again, they got control of 60 million or 50 million in assets with just a few million dollars invested. Once they got control of the fund, again, they liquidated the investments and started redeploying the money more intelligently. In '72, they renamed it the New America Fund. In '72, The New America Fund had had a net asset value of \$9 and 18 cents. By the end of '74, it had a value of \$9 and 28 cents actually went up. But the price it was trading at was \$3 and 75 cents. It dropped a lot because '72, '74 was when we had the Nixon impeachment. All these price controls, we had a lot of the oil embargoes inside. There was a lot of ugliness going on at that time in the US economy, and the stock market had crashed. Blue Chip stamps, which had a market cap of not of 80 million in '72 by the end of '74, was trading at a market gap of 27 million. If you just think about Blue Chip stamps at the end of '74, it already owned See's Candies, which they had bought for 25 million, and it also owned Wesco Financial that they had bought for also 25 million,

both seriously undervalued even then the market was not willing to recognize that these were great assets. The Wheeler Munger partnership reported over two years about a 53% drop in return. It a huge drop, and a lot of pain, in fact, Charlie Munger recalls that time is a very painful time. What he did is, in 1975, I think 1975, the fund was up about 75%. But if you're down 50% and then up 75%, you're still not back up to zero. If you're down 50%, you need to be up a hundred percent. What he did was he liquidated the partnership. But what he also did when he liquidated was he distributed Blue Chip stamps and New America Fund to all the investors. Instead of giving them cash, he gave them these stocks and he just gave them instructions that, Listen, just hold onto these stocks. Eventually the New America Fund was eventually liquidated in 1986 for a hundred dollars per unit. What was trading at less than \$4 a unit went up 25 times. One of the companies they bought inside New America was the Daily Journal. They bought the Daily Journal for \$2 million inside the New America Fund. Then in '86, when they liquidated New America Fund, a Daily Journal started trading over the counter now trades on New York Stock Exchange. That \$2 million in the Daily Journal is today worth almost 300 million. That's also done quite well. But the thing is, while these assets did well, we had a period of serious pain where you had huge declines. If you think about it, his investments were the most sensible investments he could make because he was buying, he had 94% of his investments in two companies in which he had control, knew the businesses really well, and they were trading at a huge discount. Even then he had a lot of pain. The other facet that one has to keep in mind is that none of these things come that easily. Some of you might think that these are stories which are so far back, different times these times don't exist today. How can we take advantage of these things today? In 2002, Charlie Munger made an investment that he read about in Barron's. Barron is a weekly magazine, and he had been reading Barron's for almost half a century. Every issue of Barron's probably had at least 10 stock tips. If you're going to read them for half a century or something that's about 2,500 issues or about 25,000 stock tips. After 50 years of reading Barron's, he made one investment, and that investment was in 2002, where he invested 10 million in Tenneco, and Tenneco invested in the stock as well as their bonds were 35 cents on the dollar, and then they converted to stocks as well. He sold Tenneco couple of years later. The 10 million had become, what, 80 million was what? Eight x 2004, 2005. Then he turned around, he'd met a promising young Asian manager, Li Lu, and he gave the 80 million to Li Lu to invest in a new fund lead who was starting to invest in Asia primarily. That 80 million, I don't know the exact number, but it's something like 500 million today, it's gone up six or seven times since then. If you think about it, you have one action in 2002 to buy Tenneco. You have a second action in 2005 or 2006 to give that the proceeds to Li Lu, and the 10 million becomes 500,000,050 x in the last 15 years. These are 15 years, and we were all

alive. We could have done the same thing. I certainly didn't do the same thing, which is why here I am talking to you instead of being up there on the slide. But the thing is that, it again demonstrates the importance of making bets when the odds are heavily in your favor. Charlie was sure, because Tenneco had all these very dominant brands with Monroe struts and mufflers and breaks, which are all now waning, but at that time, they were quite prominent. In fact, if he had held on, he was buying the stock for \$50 \$75, it eventually went to \$55 a share. Even if he just held on some more, he would've made even more than what he did. The interesting thing is that you go through multi decade period of listening to one pitch after another and do nothing. Then you step in and make one investment, and then you step in, make another investment. In Charlie's words, the 500 million with Li Lu pretty much came out of nothing. If you think about it, in 2002 I think Charlie was a billionaire by then. 10 million that he put in would kind of been like 1% of his net worth. Rick Guerin `likes to say that it's always good to keep 10 million in checking in case something shows up. I would kind of rephrase that as saying that it's always good to have maybe one, two or 5% or some single digit percent of your net-worth sitting there waiting to be deployed. When you have extreme odd in your favor with very high return possibilities, they will show up from time to time, they show up infrequently, and one has to be prepared to act in size when that happens. These were some of the thoughts I really wanted to share with you, the core is, the few bets, big bets, infrequent bets, the ability to take pain and the ability to be decisive at the points when you're encountering no brainers. With that Professor Yang, you can maybe open up for questions and such.

Yang: Regarding your point about the ability to take pain, right? That's very closely related to this idea of the limits to arbitrage, right? That when you purchase an investment, you have to be financed appropriately because the investment can go the wrong way before it goes the right way. I'm wondering, in your position, you run a fund, Pabrai Investment Funds, you also run an insurance focused holding company; Dhandho Holdings. In your investment fund, there is the ability of investors to redeem once a year. Whereas in your insurance company, you have locked up capital sort of closer to the fund example you gave. I'm wondering what you think about investments. Do you think about these two pools of money have different maturity in terms of their liability structure? The Pabrai Investment Funds sort of a one year period and insurance company longer, period. How do you think about, which types of investments go in, which pool of money to deal with this ability to take pain problem you mentioned?

Mohnish: Sure. I think that's a good question. Well, I think that Dhandho Holdings (you're correct), it's like a closed end fund, if you will. Inside Dhandho, we can own private assets. For example, our insurance company is wholly owned. It's a private

company, and we have a couple of other private assets like that. We cannot do that in Pabrai Investment Funds because it's subject to annual redemptions. But other than that difference, I mean, I think there's a couple of differences. I think the Pabrai Investment funds is purely public equities that are liquid and such. If people are redeeming capital, they have to give us some notice and, we can kind of get ready and arrange for that. Not a problem. In the case of Dhandho, we've got a couple of layers. We've got investments inside the insurance company, and that is very highly regulated capital. We are regulated by the state insurance regulators and we also have rating agencies that have various kinds of mandates and suggestions in terms of how we might want to structure things. There are, rightfully, a lot of restrictions on what and how we can invest inside the insurance company. Pabrai Investment funds has a lot fewer restrictions but the biggest restriction would be that it needs to be all liquid. There are different rules but certain things can only happen in one vehicle, some can happen in both vehicles, and I just kind of play with it as it comes if you will.

Kevin: My name is Kevin. I am currently a full-time MBA student here at the Palm Mirage School of Business. One of the biggest takeaways I got from your presentation is that it takes an inordinate amount of patience in order to find out what are the good investments to undertake as by your example of the individual who looked through 50 years and made one investment within those 50 years. For millennials such as myself who are used to the generation of smartphones and digital apps who maybe don't necessarily possess that type of patience which is probably something that may be developed, I'm not really sure. What are some tips or what are some words of wisdom that you would have for those within the millennial generation who would like to adopt this type of approach?

Mohnish: Sure. All right. That's a good question. What I would say is, I think investing is a great activity for a gentleman or lady of leisure, if you will. You should have something else that is your primary vocation if you will. This becomes secondary. I think it works really well when you don't have to think about, Oh, I haven't done anything last week or the week before, and what am I doing? One way you can skin that is you can get all the hyperactivity out of your system by being involved in fast moving start-ups, for example. You could have a day job that satisfies those cravings of lots of action and activity. But in your investing world I think there is no way around the fact that patience is almost a, is like a law physics in investing. It's unlikely that one can develop a great track record as an investor if one is hyperactive. I think the two kinds of don't jive with each other. There are periods of time when lots of investments become available or certain sectors become attractive and such, and there are many periods of time when there's not much to do. Investing is a great activity. If you have something else that takes away all your

cravings for action and I think it's a very important thing that if you are... it's also an activity that to some extent is probably there's some genetic predisposition. If your genetic predisposition is a hyperactive trader you're probably not going to have an easy time sitting there like Charlie Munger just reading without doing anything. But if you're predisposed to just being a thoughtful person who doesn't particularly crave action then I think it can be a huge positive. It's not easy to be on this path. One of the reasons I wanted to give this talk is I wanted to pound these ideas into my head to get to being more patient than I am because I think that I have not practiced this degree of patients in my career, and I think if I were to be more patient, the results would be better. I don't have an easy answer for you. I would just say split your time into two buckets, the hyperactive bucket to get all that hyper out of the picture, and then have this second thing on the side, which is reading and waiting. Sure.

Student 1: The question is, you talked about a few bats, big bets in frequent bats, and as you know, today, the markets are, if you consider one side, they're saying it's extremely bullish. Where we are today, we are at the top, and maybe there is still some growth left, but I mean, are there opportunities like that in today's marketplace? If there are, where would let's say the students or the ones with mayor means, I'm talking about a thousand dollars, \$5,000 invest. Where would they put that money?

Mohnish: Sure, Yeah, that's a great question. I hate to quote Jim Cramer but Jim Cramer has a great quote. There's always a bull market somewhere. Even if you just look at publicly traded equities, there are probably a hundred thousand stocks around the globe that are publicly traded. There are probably several thousand of them, or maybe at least several hundred of them that are one way or another trading significantly below intrinsic value. In many ways, it's a pleasure hunt. Like Munger would say, Why should it be easy to get rich? But I think that if one were intensely focused on that one would get there. I'll just give you a story from Warren Buffett's childhood when he was a teenager. When he was a teenager in Omaha, he used to go to the horse racetrack. It was called a Aksarben racetrack. It's Nebraska spelled backwards. He'd go after all the races had finished, and he'd collect all the tickets that people had left on the ground, which were all the losing tickets, and he'd collect them all. Then he'd carefully go through each one to see if some drunk had discarded a winning ticket. Once in a while, he'd usually find 1, 2, 3, or a few tickets that were actual winning tickets that have been tossed. Then because he was underage, he sent his Aunt Alice to the window to collect. Then, he put that money away. Then next Sunday, he was again there to collect his winning tickets. Those were free lunches, right? I mean, there was some effort involved, but for a kid it was a free lunch, if you will. When he was about 21 years old, Buffett went through something known as the Moody's Manual. Moody's manuals covered a number of

different industries. They were about 20,000 pages in all, and they came out every year. He said that in 1951, he went through all 20,000 pages in these manuals twice. In a year let's say 2000 working hours, probably for Warren 4,000 working hours he'd gone through 20,000 pages now, or 40,000 pages. Now, if you're going through 40,000 pages how many pages is that per day? Let's say you have 400 days. What would be like a thousand? No, be a hundred pages a day, right? Be approximately a hundred pages a day. Not that much. You can do it, a hundred pages is not that much. What he was doing, even a hundred pages a day, you're going pretty fast. He was going fast. He was going through those hundred pages a day, the exact same way he went through the Aksarben tickets. You can take the kid out of Aksarben. You cannot take Aksarben out of the kid. Okay? What was he looking for? Well, for example, he found I think he was saying page 1433 Western Insurance. Two years back they made \$22 a share. Then last year they made \$29 a share. The stock was between three and 13 was a range for the last 52 week and they had \$135 in book value. For him, Western Insurance was identical to the Aksarben ticket that the drunk had tossed. It shouldn't be there, right? Western Insurance should not be trading at a range of three to 13. Then he said he saw Western Insurance, he stopped, he's flipping pages stops, pulls up the AM best manual, which is the insurance manual for insurance companies. Looks at it. He says, There's nothing wrong with it. Talk to a couple of insurance brokers. They said the company's fine. He puts some money into Western Insurance. He said 10 pages later, he finds another insurance, North American something security or, or casualty or something. Again, very similar numbers and such. Then he says, the book really got hot and heavy towards the end. There were all these exciting things going on. In 2011, this was 1951, right? Then the Aksarben escapades were taking place probably around 1943 or something, when he was 13, 14 years old. 2011, my friend Guy Spier and I were visiting Warren, and we were in his office, in his private office. I noticed there was a book on his desk, and it was called The Japan Company Handbook. I was very familiar with the Japan Company Handbook. Cause at that time, Guy Spier and I were leafing through that book looking for Japanese net nets, very cheap Japanese stocks. The problem is that when you find it, and it's in English, which is great. When you find those stocks you'd be lucky to get half a million dollars into it or a hundred thousand dollars into it. I mean these are small, thinly traded Japanese companies. But the thing is, the Japanese company handbook with about 600 pages, two stocks per page. I saw it on his desk, and I said, Warren, what are you doing fooling around with the Japan Company Handbook. I mean, Berkshire Hathaway, you're deploying hundreds of billions of dollars. There's nothing in that book that's going to help Berkshire Hathaway, okay? Because this is Mickey Mouse stuff. Of course, he's a poker player. His expression doesn't give away anything. Then I picked up the book, and I took it to some pages, which I knew the stocks that I had

found that were, I said, Warren, let me make this faster for you. Here's some Mihi car, whatever else. Without asking him, my dog-eared a bunch of his pages in his book, mutilated his book, and gave it back to him. Again, he has a poker face, he doesn't, say anything. But what he was doing is he was probably going through that more for his personal account, and more importantly, the reason he was going through it. Because you can't get Aksarben out of the kid. He still loves the treasure hunt, okay? He can put money into those things, but he loves the hunt. In 2006, he told MBA students, he did the same thing with a booklet. Someone sent him City Corporate put his booklet together of Korean stocks. He found he made 20 investments off of companies in that book. On one Sunday afternoon, he put a hundred million off his personal funds into 20 stocks from that book. For example, one of the companies he invested in was Dahan Flower. Dahan Flower in Korea got one fourth of the flower market, people have to eat. It was trading for 35000 won the last three years, earnings were like between 18 and 25000 won, and it had a hundred thousand won in cash and investments and no debt. It's at one third liquidation value. There's no business. On top of that, there's a business, right? Coming back to your question about what do I do with 5,000? Well, quite frankly, the 5,000 is a huge advantage. Buffett has a disadvantage at 400 billion. That's a problem. 5,000 is not a problem. The question is, are you willing to be like the kid at Aksarben? Are you willing to flip through 40,000 pages looking at six numbers per page to see whether you should flip the page or wait? With a hundred thousand stocks in the world and auction driven markets there are always mispriced securities. Not only are they mispriced, in some cases they are extremely mispriced. Two years back someone sent me a stock tip. One of the good things is that every day when I come into work usually my assistant hand me a folder. There are usually two or three stock tips in there, okay? It's great. My email address mp@pabraifunds.com, please feel free. Okay? every day I come into work, I look at my folder, and there are two or three stocks I've never heard of that people have sent in. I just look at two numbers, and then it goes in the garbage. But before I send the garbage, thanks a lot I appreciate you sending it. But I look at two numbers. I look at the price the stock is trading at, which is normally mentioned in there, and the price the person is saying it should be trading at, right? If those two numbers are not apart by at least a factor of five or 10, I'm done. Unfortunately, every day when I come in, this is what happens. Some guy has sent me a 15-page elegant write-up immaculately, done a lot of charts, et cetera. I'm just looking for these two numbers. The stocks at 13, and after 10 pages, it says it's worth 18. What do you think I do, Sanjay, Thank you very much. Warm regards. But don't let that persuade you all. I want to say to you, please don't send it to me unless it's at least a five x and preferably a 10 x and ideally a hundred x delta between those two numbers, because we need to get to Tenneco, right? But the thing is, almost exactly two years

ago, some person I had never interacted with said this 10 page, very well written report, I looked at two numbers. The two numbers were part by a 10 x. I said, Lo and behold, someone has sent this in, right? I said, this is great. I have like Acorns easy chair in my office. Lynn knows my office, the Acorns. I left my desk, I went to my Acorns easy chair, put my feet up and started to read the report. Because now I was into an orgasmic experience. I wanted to make sure I fully enjoy the experience. I read the report and I couldn't find anything wrong with it. I mean, everything, I'd never heard of this company, but assuming everything he was saying was accurate, because I didn't know whether it was accurate or not, all I knew was he was describing some company and blah, blah, blah, whatever else. Then there was this factor of 10 Delta. I said, Okay, the fairy tale looks awesome. Now let's see if the fairy tale is true. All I did was I spent about two hours just checking every number. I just opened up Google Finance and opened up a few other websites, and I just went through the company's website, and I just checked, okay, he's saying, debt is so much, Is the debt so much? It's non-recourse, is a non-recourse, blah, blah, blah. I just went through the checks and after two hours I looked and said, I'm done. Everything is there. There's nothing more to do. I put 20 million of Pabrai Investment funds into the company. It's now at, I think north of 50 million. I think we probably will get a hundred, maybe north of a hundred, might even get 200 million out of it. We'll see. The guy who sent it, I still haven't met him, I did thank him, and I said, please keep them coming. I haven't seen anything else from him, but if I see something from him, I'll definitely go back to my icon share to read what else he has to say. The bottom line is that, if one were to be unreasonable and say, I only want 10 baggers or five bagger, or whatever else they're going to show up, if as long as they're willing to be patient and be unreasonable about it. But the thing is what it takes, it takes the insert intensity of the person at Aksarben. That's a very unusual teenager who's doing that and that's a very unusual 21 year old who's doing that? I don't know any investment analyst who pound through 40,000 pages. Maybe they do, but I don't know them, and who are going through the intensity that Buffett went through. One of the things Einstein used to say is that, compounding is the eighth wonder of the world. The reason he said that is that, Sanjay, if you have a thousand dollars and you find one of these five bagger let's say even every 10 years, right? You start at the age of 20, and you're dead at the age of 80, for example, so you've got six decades, right? Every decade your money multiplies five x. 5,000 becomes 25,000. When you're 30, it becomes 125,000 when you're 40, and it becomes 625,000. When you're 50, it becomes a little over 3 million. When you're 60, it becomes 15 million when you're 70 and you've got 75 million when you're 80 and dead. That's a thousand dollars or \$5,000, right? We don't need, this is the magic of compounding, you find one five bagger every 10 years? You've got, at least 20,000 hours in 10 years, if you just work 40 hours

a week to find one should be able to find one. That's the name of the game. Other questions?

Student 2: If the students assess the work involved in the Japan example where you were looking at very cheaply priced Japanese stocks, I imagine you must have looked at a bunch of, perhaps other countries or elsewhere in the Japanese market. How many pages or how many hours of work would you say went into for every one idea that came out to be?

Mohnish: Well, I was interested in looking at Japan because at the time, if you just looked a little bit of the Nikai and what had happened to it, I mean, it's gone to a long period of doing nothing, and Japanese companies have governance issues. They sell a lot of cash, they don't give it out. There are definitely negatives there, but cheapness gets over a lot of negatives. There are faster ways to do that. I could do exactly what I was doing with the Japan Company Handbook with Capital IQ. That's, I think is 18,000 a year or something. But if I used Capital IQ which is how I actually got to the company that marked and Warren's book, I'd actually taken a shortcut. Then I tried to get Warren to get interested in capital. Like you, he had no interest. I think the reason he had no interest is, he just loved the treasure hunt and such, so it didn't take that long. This is the funny thing about the market. Those bargains should not exist. You have some portion of your time in the class that goes on efficient markets, If markets are fully efficient, these things just shouldn't exist. It's a classic, like the University of Chicago, the professors walking his student points out there, the hundred dollar bill on the ground, he says that's not a real hundred dollar bill because the real hundred dollar bill wouldn't be on the ground. Markets are almost fully efficient, but they're not fully efficient. There's a huge gap between those two statements and Buffett has a saying that "I'd be a bomb on the street with a tin cup if markets were efficient". It is not so much I don't think it would take that much time. I think it's a question of whether one has the fortitude to buy because you're going to be buying things that you've never heard of, companies you've never heard of, whose stock prices have moved in a long time. You would have to sit there and watch paint dry for many years. Are you the kind of person who loves to watch paint Dry? How many people love to watch paint dry? Please raise your hand. Alex loves you. He's in the real estate business. He paints the wall and just sits there and watch it. That's what you do, Alex? All right. Okay. If you love to watch Paint Dry, which the millennials I take are not too keen on, but if you love to watch paint Dry, this is the field for you, because that's what you got to do. You've got to make your bets and then spend your time talking to students so that the time is spent and you don't do counterproductive activities. Other questions? Yeah.

Student 3: I'm from UCI and am currently an investment banker. I am a big fan of Mohnish since I was doing my CFA. It's great to see you speak here. The business I am in,

we spent a lot of time looking at the product and technology and where it's going, and we don't get to see as much past financials and find those things, right? When you gave these wonderful examples, I loved it, the Blue Chip and Tenneco and those, and even the Moody's manual and Japan company book, and how you kind of pin it down to a couple of financial ratios or multiples and figure that one out. But when like Charlie figured out Tenneco or they figure out, Buffett and team Blue Chip, and when you do your work, once you find that five bagger or 10 bagger, how much work goes into, like, looking at the product or the business itself besides just the financials, right? Because you look across so many sectors, unlike me, you can't, one cannot be expert of all the sectors. Right? What role does that play, if at all? Or is it purely a financial decision?

Mohnish: No, that's a great question. The answer is, there's a wide variance, in some cases the time spent is very short. I would say that with the tip that the individual sent me, it didn't take much time. One of the reasons it didn't take much time was that the quality of that report was extremely high. Actually what I discovered, because I was really blown away with a high quality of that report, so I'll answer your question, but just to give you a little bit of a kind of backdrop. I never talked to that company or interacted with them in any way. When I bought the position very recently, I went and I was in the same city as a company. I said, Let's go meet them, let's see what's happening, right? I arranged a meeting and the CEO wasn't there, but the CFO was there. This was...

Student 3: This was after you made the investment?

Mohnish: A couple of years after I made the investment. I go in and we own close to 10% of the company. We are one of the largest owners of the stock outside of the family that controls it. I am the CFO for the first time. He says, "Mohnish, all these years, all these people have been badgering me about why you invested in our stock. I kept trying to explain to them, I've never interacted with this guy. I've never had any interaction but they don't believe me. They don't believe that someone will take a 10% position in that company without ever having met them. They think I'm kind of lying to them, but I told them there's nothing there". I explained to him that I had received this very well-written thing. What ended up happening is that he gave me some data that completed the picture. There was an Italian analyst, this is a company based in Hyderabad in India. This Italian analyst has also never met or visited the CEO and CFO in Hyderabad probably four times over two or three years, doing a very detailed drilldown on the business. He was really going back several years before I bought the company. Then he put together a write-up. I haven't seen that write-up till later. Then this other individual took that write-up and then built on it, right? By the time I got involved, I had these two great unpaid analysts who done a phenomenal job. It worked out well. In that particular case, because so many

of the pieces kind of put in place for me, there wasn't much. I didn't spend much time, others had spent hundreds of hours on it to make it easier for me. Thank you very much. But I would say about five years ago, I was looking at the auto industry, which I have always hated. In that case, it took me, I think probably about two months of staying up till three or four in the morning reading to finally get to the point that I was ready to make an investment. In that case, it took a significant amount of time probably the most time they get to hundreds of hundreds of hours to get to where we need to get to. There's a range. If you were going to build a basket of Japanese net nests, that probably wouldn't take you that much time. You probably wouldn't need to spend even more than 30 minutes on a company. Also, you would probably make the basket size really small, and you'd make a bet with 10, 15, or 20 companies you'd kind of make a basket bet and you could do that. Even today, if you look at, for example the South Korean market, the South Korean market today is probably one of the cheapest markets in the world, according to me. I think the smaller cap Indian market and the South Korean markets are relatively cheap. But South Korea has these preferred and there are lots of them. They trade at discounts to the common, the only difference in the wording rights, which really don't matter. In some cases, the preferred are trading at one third of the common when economically they're identical. This is in 2017 when it shouldn't be happening, but it is happening, and it's happening right now. I would say that there's a range. Sometimes it takes a lot of time, sometimes it takes little time, and it's just wherever it falls. That's perfectly fine.

Wally: Hi there. My name is Wally Splain. I'm an undergraduate here. I was wondering if you could speak to the value of your philanthropic efforts and why it was important for you to form the Dakshana foundation.

Mohnish: Okay, great. Well, I think it was just because there was no other choice. I think that if you are even a slightly above average investor spending less than you earn or a lifetime you're going to end up with probably more assets than you could spend. I could see that, that was happening and probably likely to continue to happen in my family's case. If you're going to end up with more assets than you are consuming then there're really only two choices left, right? You can either pass it on to your gene pool or you can in some way recycle it back to society. Those are pretty much the only things you can do. Large inheritances are a disservice to my kids, if you will the next generation, if you will. I think that if I were to give my kids large inheritances, they would have probably less interesting lives than they might otherwise. It is actually a bad idea to be thinking about passing on large inheritances. If large inheritances is not an option, then the only option you have left is to recycle back to society. One of the things I realized from reading Warren Buffett's perspectives is that, giving money away effectively is more difficult than

making it because the types of things, if I'm going to make an investment, I can look at a hundred thousand stocks and find something that's kind of weird and no one likes whatever else and make that investment. But if I'm going to try to improve society, the kinds of things I have to work on are things like poverty or environment or health. These are problems and issues that have been intractable in getting solved, even with trillions of dollars being spent by various entities, governments, and such. These are tough problems. Understanding that giving money away is more difficult than making it, I didn't want to wait till I was very old before starting to kind of figure it out, if you will. We started the Dakshana, my wife and I started Dakshana about 11 years ago. I was in my early forties then. The reason to start then was to really have at least 10 years where we could fail, but learn from those failures and then start getting better. That was the idea, we started giving away 2% of our net worth, I think about 10 years ago. It was small number that wouldn't affect us if it didn't work, but it gave us enough money to have meaningful experimentation. What ended up happening was that we didn't have really any meaningful period of not having traction. It took off right away. We were very lucky. We got a great partnership with the government of India, got a great team, and it took off quite well. Now it's way past a start-up. It's getting to scale and such. We had opened it in the middle to others to contribute. I think Dakshana now, for example, has a annual budget of a little over \$3 million. About half of that comes from my family. The other half is coming from other folks. That number will keep growing. It's actually created meaningful change for a significant number of people, so it's worked out. That was the kind of the thinking that there was really no choice. Now I think the goal will be over time to gradually kind of increase the percentages of the numbers and so on. But the thing is that what I've always assumed with philanthropy is, be very willing to fail. In many ways, it's the opposite of investing. What one ought to be doing with philanthropy is to swing hard at the fences, swing for the fences even if the odds are that you'll miss because it's really the only way you can kind of bend the trajectory. If you look at, for example, the Bill and Melinda Gates Foundation, they're trying to swing for these things like the vaccines from malaria or hundreds of millions of toilets and so on in India. They're trying to go after major things with some significant innovations, knowing that there's a high chance of failure. But the good news is that if you succeed then you move the trajectory, which is great. That was the kind of the thinking behind it.

Student 4: One of the takeaways that I got from your presentation with regarding the blue chips where about 50% of people don't ever redeem their tickets, was that, that's one of the habits that people have. By going through that experience and within the industry, you can sort of define that as like a core element and a core result of the business. I sort of take that back to when I think about learning about value investing in my class in my classroom setting, which is before undertaking any type

of investment you have to like really know the business inside out, like the core about how it operates, how does it generate and maintain profitability, so on and so forth. I was wondering from your point of view, how does that approach really take place when we look at a diversified business or like a conglomerate like take for example, GE as a large company that really diversifies into many verticals. How would you really take the principles of value investing and put it onto a large company with that kind of diversification?

Mohnish: Sure. That's a great question. First, for Blue Chip, the percentage is not redeemed, I think it was closer to 5%. Half of humanity was not out to lunch. Just about a few percentages, 4, 5%. Now those 4, 5% are selling it on eBay and trying to make up for it. It's okay. But you know Buffett has a box on his desk which says too hard on it. He says that probably 98% of stuff he encounters goes into the too hard pile, which means it's something he cannot figure out. He's a very smart guy. The thing is we don't need to know everything about everything. For example, the gentleman here mentioned venture capital and early stage investments and all of that. You can get a lot of moon shots with that approach. You can also get a lot of zeros, right? It's not an easy game. For me I would just take that whole thing and put it into two hard piles for me. For him, it's not the case because he's got some competence inside. This varies by individual. If I look at GE, here's the reasons why I would just not even spend two seconds on it. Number one, it's probably followed by two dozen analysts who spend a lot of time on GE. I can look at any of their reports and I can see that there's no factor of five or 10 between the current share price and what the share price is. In fact, I would say that's probably the case of the thousand largest businesses in the US Forget about them. If the companies in the Fortune 500 or the S and P 500, whatever else we're done, the beautiful part is we just finished 500 businesses in two seconds. It's awesome. You like my speed? I have great speed. I'm faster than Buffett can flip pages. We don't need to understand everything about everything. We can just focus on, Munger says go fishing where the fish are. Are there fish in the Fortune 500? Maybe if I spent 10 years, I might find a couple of fish dead and I might have missed some. But, let's keep it simple and just say no and move on. Basically, focus on where the fish are, focus on sectors that people hate, unloved countries that are unloved, things that would cause distress. For example, Qatar has been in the news lately. Have you looked at stocks in Qatar? Maybe if you're doing nothing tonight, the stock market is tanking. I haven't looked at the Q stock market. I don't know what kind of company are in there, but let me put it this way, that's high higher property of finding value there than in GE. That's the name of the game is basically go to where the fish are, where you think the fish are, and then the patience and the discipline to look for it, kiss a lot of frog before you get to a prince.

Francisco: Hi. My name is Francisco, and I actually had a question regarding that diversification. I know your strategy's more of kind of like equity, long value investing but within like an ever changing world where industry trends might change or competitive advantages might disappear what's your opinion on diversification? Like how many stocks is enough for your portfolio, for example?

Mohnish: Yeah, I think it depends. It depends on your degree of conviction. I mean, I would say very few of us can get to Munger's degree of conviction where two stocks are 94%. But Charlie Munger says that "if you owned a small town in America the McDonald's franchise and the Ford dealership and the best office building in town and the best apartment building in town, let's say those are the four assets you had, and you could own fractions of them. You may not be rich enough to own all four completely, but you could own 5% of McDonald's, or 7% of a Ford dealer or something like that". His perspective was the portfolio which had those four assets in a place like let's say Peoria, Illinois, middle of nowhere would be enough to make you quite wealthy over lifetime. If some person looked at that portfolio, they would say there's extreme geographic risk because everything is in one town, right? But if you meet any entrepreneur in Irvine let's say some Chinese couple running a small Chinese restaurant nearly all of that network is in one asset not even four assets in one time, right? That's probably even more risky than what Munger suggested, Peoria, et cetera. I think the answer on how many stocks or how many positions is a function of how well the companies and how durable those modes are, and you are right that over time almost all modes erode, almost all companies lose their competitive advantage. I mean the Ford dealership I don't know what that looks like in 20 years. Maybe 10 years, it's okay, but 20, 25 years it may be fine. I can't tell. McDonald's might still be there, but again, we don't know, food is an area where if you get to things like what happened with the pork lay you can hit some brick walls. I would say for the mere models like us not the Mungers of the world, I think if you got to probably something like 10 stocks that you understood really well in a few different industries that's plenty. I don't think you should get to 50 stocks in a portfolio. I think that's not going to help you. But something like, 10, 15 or eight or something is probably a good number.

Elizabeth: Hi. My name is Elizabeth and I'm an undergraduate here at Paul Mirage. My question simply was, what is the most valuable piece of advice you have received over the course of your career?

Mohnish: Well, that's a loaded question. Let me think about that. Because there's a lot of different kind of things that I have come across in my career. But I'll get back to your question maybe after the next question. In the meantime, I'll give it some thoughts or I not rambling off something that just comes off to the top of my head.

Student 5: My question is, it seems like investing really takes up a lot of your time and just like running your foundation and everything you do, how do you manage to balance your life in terms of family, personal time and everything else?

Mohnish: Okay, well, that's an easy one. My wife isn't here, but if she were here, she would say he doesn't work at all. If you asked him what he does, she would say he does nothing. Because her perspective is she really sees me do nothing, quite frankly, and my daughter's at the back. What do I do? How do I spend my time? I sleep. There you go. In fact, just before I came here, I finished my afternoon nap. Afternoon naps are a good thing. I'm wide eyed and very cheery for all of you. Yeah. Actually, investing is an activity that at least, (as defined by Buffett and Munger and such) is not an act, is not something that has a lot of hyperactivity about it. It's an activity that requires a lot of reading and thinking, which is fine. I enjoy that. Actually, I don't even think of it as work. I think of it as fun, really just trying to understand the way things work and the way the world works and so on. I think that if you focus on doing things that you love to do, then you won't work a day in your life. I think that should be the objective. I think the objective all of you should have is to focus on now. For some of us, it's hard to figure out what we are excited about, right? I mean sometimes that's not clear. It may not be clear at your ages what you're excited about, but increase time on activities that energize you and decrease time on activities that don't energize you. For example, one of the things that Buffett and Munger say is that if you spend time with people who are better than you, you will get better. If you spend time with people who are worse than you, you will get worse as a magnetic pool both ways. One simple thing to look at is, if you look at your kind of close friends and who you spend time with, just ask the question. Are these people I really admire and look up to? Or are they someone who's kind of pulling me down or has got some negative attributes and such? If you change your social networks to be more in terms of a crowd that is kind of interesting and ones that you look up to that's going to be helpful. I think these are just things that you've got to feel out and figure out what you're excited about, what you love doing, and then take it from there. To answer your question, I don't know whether it is advice, but I would say that there are what I would say the important thing for me is certain mental models. Some of them came about from people, some of them I read about and different things. These mental models have been very important. For example, one of the mental models that I think might be useful to this group is that there are there are 168 hours in a week, and when you start working full time your employer is expecting you to show up for around 40 or 50 hours or something like that. If you live close to where you work, then you won't have much time with commutes and such. Even if you take out time for everything else, eating, sleeping, and et cetera, there's probably at least another 40 hours available to you for other activities. You can spend a number of different ways. One

way that the second 40 hours can be spent is, it can be spent on your passions, if you will. It could be spent on getting a start-up off the ground. It could be spent on, in Sanjay's case, investing that 5,000. In 10 years it becomes 25,000, right? There is a chunk of time all of us have. In my case, I only had one employer, but when I knew I wanted to do a start-up and leave I didn't just leave because I didn't have any money. I used this mental model. What I did is I basically reduced my intensity of work for the employer to be just above firing level. I was no longer interested in being employee of the month, employee of the year, or anything like that. I wanted to take it down where I was just above that he's not so bad at going to fire him, but that's about all we are going to get out of him. I spent all the time, early morning before I went to work, in the evenings when I came back, and weekends on getting my start-up off the ground, right? I put all my energy there, and it took about nine months of running this kind of dual life by which time the start-up had some revenue. I had two, three months of visibility, and I resigned. When I resigned, my boss said, we couldn't figure out what happened to you in the last six or eight months. I said, Yeah, exactly. I said, my point was to just focus. He said, Yeah, it wasn't so bad that he wanted to fire you, but you were just gone. This is something I said. I said, that was exactly the point I wanted to be, just about firing level. The mental model that you can do two things at one time within the same week is an important one. The mental model of understanding that compounding is the eighth wonder of the world is an important one. There are a few of these models which basically become important. Another mental model I probably got late in life, probably when I was in my mid-thirties, is that humans, humans want the truth. They don't particularly care what it is. For example, let's say I did something untoward or negative, or I had some results that were not that great. If I am absolutely candid about owning up to those, generally speaking, as humans, we know that we are subject to screw-ups. Something that I didn't understand was that people don't particularly care that you screw up. What they care about is that you're candid about the screw up. What I found is that when you have candor around screw-ups, you strengthen relationships and you actually deepen trust. All those things have huge positive impacts long term. What I learned from Charlie is to be a collector of mental models. One of the reasons why these mental models become important, because our brains are kind of very screwy in terms of how we process things. There are a lot of kinds of glitches in it. These mental models help us get around a lot of these glitches. That's kind of what I would say is some of the things to think about. Yeah, go ahead.

Student 6: I actually was going to ask a similar question like she did. Because as an entrepreneur, it's really hard to balance the work and life, but I think you already gave the perfect answer for that one. Another question I have is that did you like have any investment in China's Jamaki, and how do you think about that?

Mohnish: I think we have one investment in China, I think one investment in Hong Kong. I mean, the Hong Kong one was easier because everything was in English, it was easy to kind of go through it. The Chinese one, I got some hand holding from some benevolent Chinese people, which is great. But no, my biggest handicap with those markets is to a large extent, it falls into hard pile. I would say you would probably have a serious advantage over me on the Chinese market and such. The important thing I think in investing is to always stay within the circle of competence and always focus on things that you really understand. Munger gives the example of one of his friends with a billionaire, John Arriaga. John Arriaga only invested throughout his career in real estate within a few blocks of the Stanford campus. In his whole career, all he did was make investments around us. Usually, he was buying when things were pessimistic, and he was selling when they were euphoric and those sorts of things. He never levered and over time, those investments did really well. If you think about circle of competence of a person like John Arriaga, well, it's not even real estate, It's not even California real estate, It's not even Northern California real estate. It's not even bay area real estate, it's real estate just around Stanford. A person who just understood real estate around Stanford from a standing start becomes a billionaire, right? The nature of the world is that, specialization is a huge advantage. Even something like the Chinese markets is too broad, I think the narrower you can get and the more intensity you can bring to it the better off you're going to be. That's the key within circle of competence and depth of knowledge in there.

Lisa: Okay. Hi, my name is Lisa. I'm also an undergrad here. I noticed that one of your investing principles is to invest in high uncertainty companies and I notice that in the markets, people often interpret high uncertainty as high risk. I'm just wondering how would you differentiate or how you interpret the idea of high uncertainty and high risk?

Mohnish: Sure. Well, that's a good question. Risk and uncertainty are two different things. Markets many times get confused between the two things. For example if I were to let's say, look at a funeral services company, a company focus on either Cremating or burying the dead. Let's say they're in certain geographies we don't know who's going to die in Peoria Illinois next year, but we know how many are going to die, okay? If you want a predictable business, there is probably no more predictable business than a funeral services business in Peoria. I can tell you 10 years from now what the cash flows are going to be, even 20 years from now, what the cash flows are going to be, right? A business like that exhibits no uncertainty, right? It's a very low uncertainty business. Generally speaking, businesses with low uncertainty tend to be fully priced. They almost become like bonds, I mean, if you have a real estate investment trust, it has a set of class, properties in prime locations, 95% leased, the

economy is doing well, you can see those cash flows for a while and it's got a lot of stability to them. On the other hand, there are businesses which by their very nature are subject to very high uncertainty. For example, let's say they were an oil company, right? Where the revenues and cash flows are very dependent on the price of oil. They haven't hedged anything, or let's say the shipping company which got this entire fleet on daily charters, if you will. Again in some cases though, charters can vary so much that you can get very high deltas in what the cash flows can be. One of the queues in investing is that one should look for situations where you get the combination of the two, where you get a combination of very low risk and very high uncertainty. When you see an example of the two together the odds are very high that you can make a lot of money. I'll give you an example. I think this was in 2000 or 2001, there was a company I invested in, it was called Frontline. It was a shipping company. What they did is, they transported crude oil. They had these VLCC (very large crude carriers), which are transporting oil between, let's say, Saudi Arabia and the US and so on. These crude carriers are huge ships, at that time, they cost about 70, 80 million apiece. They're two ways that people use these ships. They either do leases, kind of time charters, or they're on the spot market. In the case of Frontline, they had something like 40% of the global fleet of VLCCs, and they were all on the spot market. In the spot market, VLCCs range of daily rates varies from something like \$10,000 a day to a quarter million dollars a day. It's a huge variance. The Break-even price for these ships was at that time, about there to make at least 20 or 25,000 a day to break even. What happened I think in 2001, 2002 when I was looking at Frontline, is there was a glut of ships too many ships and not enough crew being shipped around. As a result, shipping rates had collapsed. At that time, shipping rates were around 10 or 12,000 a day. Frontline's fleet was losing money, and the stock price went down to something like \$3 a share. These ships also have active market of being bought and sold. For example, Clarkson's was a publication. I could look at what the distressed selling price of these ships was at that time, and if the entire company just sold everything at a distressed price, they would get something like \$11 a share. It was trading at huge, 60, 70% discount or liquidation value, mainly because there was fear, right? I mean, there's the kind of the midnight of the oil shipping business, if you will. Now the other nuance, we talked about mental models since we have some time, I'll just make this a little bit more detailed. There's a friend of mine who is in the real estate business. He was telling me that class A office towers in major urban areas normally take three to five years from the time someone thinks about them to the time they're ready, it takes a long time. Usually what happens in the real estate business is that when occupancy gets really high and vacancy is very low in these class A towers, everyone and their brother plans to build them. But the thing is, it takes three to five years to build it. By the time they get built, they all hit the market at the same time,

and then everything collapses. In these real estate towers, you have this boom and burst cycle going on because they're like lemmings, when everything's jamming, everyone in their brother is building and they all come on the market at the same time. The VLCCs are very similar in the sense that it takes a couple of years, two years, three years to get a VLCC built in a Korean shipyard. Usually, when the rates are really high, 80,000, a hundred thousand a day, everyone in their brother places orders. What happens is that on a \$70 million VLCC, you can place an order by giving them 2 million or a million. You don't have to put up a lot of money, just, it's like ordering a model. \$3,000 gets you model three. On the other side when rates go to 10,000, nobody wants to place orders, there no what is being placed just like there no towers being built. What happened in the VLCC market is when these rates go to like 10,000 scrapping increases because they can scrap the ships, the old ships, and get a lot of instant cash from the steel value. What happens in the VLCC market is that when these ships, there's lot of these ships, there's excessive scrapping taking place, but when those ships get scrapped and then the demand comes back up, you cannot instantly have more ships. The only thing that happens is the price changes. I bought Frontline, I just wanted to capture the liquidation value spread. I bought it at three, \$4. It eventually got up to, as the rate started going up, it got up to eight or \$9, it was still built liquidation value. I sold the stock. I think in six months I doubled my money or whatever else. But then, the second part, which I missed, came to bear, which is there weren't enough ships rates went to a quarter million, they're sitting there with 40 ships, and eventually the stock was a 200 to one. If I had been like Sanjay and I just put 5,000 there and just, gone away, that would've been the thing to do and such, so I think that that was a case of very low risk and very high uncertainty because of those dynamics. If one is kind of a student of these things you can find these kinds of weird things in different industries and it's a fun hunt when you find them to look at them and such. That's what I would suggest we had. Yeah, go ahead.

Michael: I'm Michael, an undergrad here at Palm Mirage. You've been talking about this for the past hour but you've been stressing a lot about the importance of patients even when the market is down. But in your experience, have you witnessed like any historical indications that continue to repeat during your career that prompt you to not exercise patients, to actually act?

Mohnish: Well, I think this is a business where you have to combine extreme patience with extreme decisiveness. It's kind of a weird combo, but what you need is an ability to sit there long period, do nothing, and then when the opportunity is there and it's obvious, you act in size. You really have to have the two together. I think that's why, to some extent, I think that it may be difficult depending on genetic makeup to completely reprogram someone. To some extent someone has to be predisposed

to some of these traits. Then I think you can build on it from there. That's what I would say that you just need a combination of the two. One of the reasons I even like to give talks like this is that it helps reinforce me the importance of patients as I'm saying it to you, it helps me get better at that. Patience and decisiveness need to go together. It's not easy. I mean, I think the thing is that you've got to have this, extreme action at one point in time with no action for long periods of time. That's just a difficult combination to put together. But that's what is required.

Keio: Hi, I'm Keio Beverly MBA student at the Palm Mirage School. I was really intrigued by hearing that every day you receive a few tips sometimes from people you've never had interactions with, as someone who's not employed in the investment industry and someone who's just starting to kind of begin their career with personal investment. I was wondering if you had any tips for a way to kind of broaden my network to meet people who are investing to kind of get more information and kind of bounce ideas off of people?

Mohnish: Well yeah. I think one way you could do that is you could reach out to people with perhaps your write up of your best idea and say, Hey, if you find this of interest, we could chat, et cetera, and take it from there. But I mean, I think that some ways to broaden the network might be to go to places where some of the like-minded folks hang out. I don't know if you've been to the Berkshire Hathaway annual meeting in Omaha, I would say that's a good place to go and get early in line, because usually the people around you, or even in the airplane, I think most of the people will be heading there, or Professor Yang attends the Daily Journal meeting in February. Usually that's another good place to go that's local. I'd say that there's a few places where the groupies hang out. There are some message boards, and I think some of the message boards also have people who meet up. I think there's one called the corner of Berkshire and Fairfax is a message board, and so sometimes people on the message board will meet. Yeah, I think that in this day and age, you've got a lot of digital tools at your disposal that can get you to some groups online, and then you can take that further from there.

Ken: Hi my name's Ken. I'm undergraduate student at Palm Mirage. I just have a quick question about which you keep the same investing strategy and the president Donald Trump's administration, and how would you adjust that?

Mohnish: Yeah, that's a great question. Actually, the good news with the US is our presidents have very little power. In the entire history of the United States we've had a lot of pathetic presidents. We probably had more pathetic presidents than great presidents because you think back yourself, who are the great presidents? You probably might not even get to all the fingers on two hands. I'm not necessarily convinced President Trump is not going to be a good president. Time will tell. But I would just say that

I don't make investment decisions. I don't think I've ever made any investment decision based on who's in office. I think quite frankly where Dahan flower is trading in Korea has nothing to do with who's in power. It has no relevance or where frontline is trading or any of these other dynamics. It has really got nothing to do with who's in power. I've never made investment decisions, and I think it's a stupid idea to make investment decisions based on who's in power, especially I think given our US system of those strong checks and balances, I mean, there's natural tendency to inaction unless a lot of parties agree. We've seen that over eight years in the Obama administration. We are seeing some of that right now, and some of that is a negative way sometimes we do need action. But the remarkable thing about the US is that, at specific points in time when everyone needs to come together, like during the financial prices and different things and stimulus and all that, they magically happen to actually agree and do a few things, which is great. I would say it's generally a mistake to spend time. Actually, one of these kind of peculiar human traits is that everyone seems to spend too much time on the nuances of President Trump. It's probably entertaining to spend that time but quite frankly that is not going to help your net worth.

Student 7: I heard you mentioned the passing about the one word over lever or leverage, and I know that's a very dangerous word when it comes to investments. Can you share a little more on that and whether it's ever a good idea to use leverage to invest?

Mohnish: Yeah, I would say the short answer is probably a good idea to avoid it. I do know that, even someone like probably Charlie Munger used leverage in the very early days probably has no desire to use it at this point, or even for the last several decades. I think the simple answer is that, it's probably best I mean, they can be situations where leverage may make sense but I would say that if one never used leverage, that would keep you out of a lot of trouble. I think generally speaking, the thing about the power of compounding is, there are really three elements that control what your end number ends up being. One is; the amount of money you start with, the second is your rate of return, and the third is the length of the runway, right? The combination of those three elements gets you to the end result. The most controllable one of those three is the length of the runway. Because the thing is, especially for most of you in the room, if you are in your early twenties, you have probably a 60 or 70 or 80 on your runway and the important mental model there would be spend less than you are. Even if you didn't get spectacular rates return, if you use the entire runway length, you're going to get a spectacular end result. For example, this was I think maybe a year ago, maybe 18 months ago, I had picked up my younger daughter. She goes to school at NYU, and it was late at night, about two o'clock in the morning, we were driving back from lax. I thought this was a good time to explain the magic of compounding to her. She had just done internship

the previous summer, and she had made \$5,000 that summer. The IRA laws allow you to put all of that into an IRA, which I had asked her to do and we had done. (Then I told her, I said, the thing is that your'e 20 for example and actually she did that, I'm sorry, that internship was when she was 18). I said, "you're 18, you got this 5,000. What is the value of this 5,000 when you are, for example, 60, 65 or 70 years old, for example?". I said, "let's say for example the returns are decent. Let's say you're doing about 15% a year, for example. One of the mental models is rule of 72 which is if you're doing 15% every five years of money's going to double. If you go from 18 to 68 that's 50 years. If you're doubling every five years, it's true to the power of 10". My daughter's falling asleep while I'm doing all this math for her. Two to the power 10 is 1024. You throw away the 24 the 5,000 becomes 5 million tax deferred. At this point, she was wide awake. I said, " that 5,000 at 18 at 68 becomes 5 million. But at 19 you'll do another internship, maybe make another five, 6,000, and at 20 you'll do another one, and at 21 another one, and then at some point you'll graduate and you might have some savings that might be even maybe more than 5,000". I said, "All of this is getting saved and invested. What is the net worth at 68?" She said, It's too large. I can't do the math. It's too large. The reality is that most humans don't get there. Most humans don't get to these huge numbers at those ages. Why don't they get there? Right? One is, when they leave their job, they take the 401k and go on vacation. One of the 11th commandments, thou shall not take the 401K and not roll it over. It's very important. You can't screw up the compounding engine. The actions required to get to very significant sums without even earning that much money over a lifetime are very simple. The first action is that you consistently spend less than you earn. The second action is, even if you don't know investing, just put it in an index one and forget about it. Even if you're not compounding at 15%, I mean, you can take the same number and say, let's say a double comes in 10 years even that is, that is fine. In a 50 year period, you'll get five doubles due to the five power of five which is 32. Again, when you start doing that every year with, with all the numbers, it'll get too big number. That is the key, you don't need leverage. You need to be aware of the fact that there are magical properties to compounding and there are negative magical properties to compounding if you borrow at high interest rates. If you have credit card debt, then the whole process is working in reverse, which is terrible. Don't have credit card debt, pay off the credit cards, always spend less than you earn and start very early. If you lose in your twenties and you start compounding in your thirties, that's a massive loss. That's a lot of lost opportunity. I think you really want to get started very early.

Student 8: I have a really quick question. You're saying that we shouldn't leverage, but let's just say we are a college student and we're just starting off investing, You probably start off with like 10 grand, less than a hundred grand when you start. The problem

is if you want to trade, let's just say three times on a daily basis, you probably get hit with a T 90 and you can't trade after that. Then if you want to do options, you can't do options because you have to open a margin account and then you can't provide safety. When we can't lever, because we don't have enough money, then how can we really invest if we have to wait for stock at the lowest price in order to see it rise up to the top? Like you were talking about frontline communications at \$5, it amplified all up to 200, and then you have straight through comp or Straight Path communications, the same exact thing, \$5 that also I guess, amplified to \$200 over the Verizon trade. I'm just kind of curious for people who don't have as much cash flow, how do you go about investing when you have so many constraints that block, I guess small value investors?

Mohnish: Right? Well, I don't know where to begin with your question, because we can't have an option account, we can't have a margin account. We got to get all that vocabulary out of our system. I mean, I would say if you invert, Munger says many problems get solved by inversion. How many rapid traders are there in the Billionaire Club? What percentage of Rapid traders made it to the Billionaire Club? The flip side is how many people who concentrated or did kind of one thing for a long time made it to that club, for example. I think that the important thing is that to be patient and not be in a hurry I mean, I just pointed out that my daughter has 5,000, she makes nothing more for the whole life, earns 15% a year, which is every five years is doubling. She ends up at 5 million. If you had 10,000, you don't need heroics to get to great numbers, you need patients. What I would suggest is that, take the patient route and that might be the way, but definitely I think that some of the path that you might be contemplating the problem with those paths is that, you have high probabilities of blow ups if you're levered or you're using options and all of that. The returns look great but so is the risk. What you really want is low risk and high returns that kind of gets to high risk and high return. Probably best to look at another way of doing that.

Dave: Hi Mohnish, this is Dave Mine. I have two part questions for you. An owner operator of insurance companies and the age of autonomy autonomous vehicles is dawning, if you are an owner operator of insurance company, would you start an insurance business? Number one. Number two, as a shareholder of auto companies, at what point do you consider exiting the positions of your auto company considering that there's ride sharing platforms coming of age and so forth? Thank you.

Mohnish: Yeah, I didn't get the question about the insurance company.

Dave: The first one was, if you were to start an insurance company, would you start an auto insurance company? Oh yeah, sure. Of the autonomous vehicle?

Mohnish: Sure. Yeah. I think the auto insurance well, that'll be a pretty competitive market to try to go into with all the players out there. We'd have to have some mousetrap that has some advantage. I'm not contemplating starting auto insurance companies. I think that'd be difficult one, unless you came up with probably something, like pet insurance has a better runway than auto insurance is my guess. But I would say that the autonomous driving and all the different facets of ride sharing and such one of the things that happens with all of those different formats of transport is that miles driven or miles travelled per human are going up because of the flexibility and ease of the different options. For example, when I was an undergraduate student, you had a bicycle and options for transport, very limited. But today, if you're a student, you have relatively cheap options of Uber ride share, you can rent in general, miles traveled increases. As long as the cost of mobility drops, miles traveled increases, it becomes, so all of these I think, are tailwinds for auto companies because the miles traveled increase, then eventually you have more usage of automobiles or more frequency of purchases where auto companies, I think face disruption is when you get to autonomous where there's no driver which is the definition, the industry definition would be level five driving, which is I get in my car, say, take me to granny's house, and it takes me to granny's house and I don't do anything. My best guess on that is that the vehicles that will eventually get there are unlikely to be dual mode. They may not have the ability to have passengers or drivers and autonomous driving all in the same car, maybe separate technologies that do that. The second is that there's a huge difference between almost getting to full autonomy and full autonomy. For example, let's say self-driving trucks, I think self-driving trucks can happen very quickly because I can get a truck to a highway with a driver and then get the driver out of the truck in California and program it to go to New York, and it's all highway driving. It's really be easy to write the code in the software and get the autonomy on that. At the New York, at the last interstate, and again, a driver can meet the truck and take it down to where it needs to be. The last mile on both ends can be human and the rest of it can be automated. In trucking, it makes sense because you have hundreds of hours in the middle, which is autonomy. You can take a lot of cost out of trucking if you do it that way. The ability to do that is imminent. That can happen. I think that when you're talking about all the different multitude of last mile nuances that we face, for example I'm in Michigan, I'm in the middle of a snowstorm, I can't see the lane markings, I can't see anything and I don't know how much confidence I'm going to have in sitting in the back seat of an autonomous car that is going to get me to nirvana. I mean, you are starting to get to some issues. I think that in controlled environments, we may get to autonomy without a driver maybe in five or 10 years in anything, to anything going anywhere, to anywhere, sitting in the back seat of the car with no driver I think it's very far away. I don't know if we'll get that even in 10, 15, 20 years, we have to see, because

there are a lot of challenges. Getting to 99% or 99.5% working is a big difference between that and getting hundred percent. That last one or 2% is a difficult proposition. But I'm not a techie. This is my best guess at what's happening. In the time scale that we own auto companies none of these are relevant. What I mean by that is, I have an investment in a company called Fiat Chrysler, and we invested in it at a point in time where in a year or two, their earnings in a single year will exceed what we paid for the stock. If I'm sitting on a cost basis of a P of one on 2018 or 2019 earnings, I really don't care what happens in 2025 or 2030. I think that from my vantage point, it may actually in the end, we don't know how it shakes out, but in the end, all these different mobility options may end up being tailwinds for the auto companies because they may end up increasing the fleet usage on a global, I mean, if I look at my own usage, I use Uber, but I also use my car. There are times when my car is more convenient than Uber. Sometimes, when I'm in New York City, I use via, which is great, sometimes Uber pool, et cetera. It depends on the circumstance. I think that the fact that when people say, none of us are going to own cars and we are just going to call cars when we need them, we are ignoring habit and cultural aspects. The automobile is an entrenched part of our culture. We eat in our automobiles, women put up makeup in the automobiles, we do a lot of things in automobiles, and we've been doing a lot of those things for a century, and it's a very personal space that we are used to. I think that I find it unlikely that even in a world where every car is autonomous, that humans will cease to own cars I think we still might want that personal space and we might want to sometimes drive the car and we might want it to be to drive us at times. We may see different combinations of that. But it's very clear that if I take an Uber from Irvine to LAX today, for example, Uber X, it's like 60 odd dollars. For example, if that same car didn't have a driver, it might be 10 or \$15 in cost, it would take the cost down a lot because you'd be basically just gas and maintenance and amortized costs over income. You would drop the cost a lot. If you made trips from Irvine to LAX be very convenient at \$10 door to door, you would increase usage quite significantly. Demand would go up. As we drop the price of mobility so, how did mobility prices drop in the past? We had public transport, right? I mean buses and commuter trains and all of that. That has some convenience, it has some negatives. As you get these wide range of different options, ride sharing cars by the hour and pooling and autonomous and such I think that miles driven by humans with skyrocket. One way to play that, which is probably better than the auto companies is the no brainer way to play that is the tire companies. No matter what happens with the trajectory that we are on from 2017 to 2035, there is no question that every year from now there'll be more tires sold than the previous year because miles driven are going to go up and especially with let's say electric cars, electric cars always trying to reduce their weight. They make the tires really thin because they want to maximize the distance.

The electric car tires burn out much faster than the normal tires. That's even better for the tire companies. The way to play this, in my opinion, is the tire companies. Then, I found just like the person who sent me the idea, which was 10 x, another very nice human sent me a tire company and God bless him. This entire company was at two and a half times earnings. I didn't have to think much because at two and a half times earnings in a market that's growing, we love that. The problem is, it trades by appointment. It's very thin volumes obscure company, you guys have probably heard of it. But the thing is that, in a 560 million dollar fund, I get sometimes a thousand dollars of the stock. Sometimes I get \$2,000 in a day, sometimes I get zero. But I've been nibbling, I'll just continuing to nibble. Now I think we've got about \$4 million so far, but we just keep nibbling at it and see where we can get. I'm excited about that one.

Yang: We'll take the last question over there.

Speaker: Hi I'm an MBA student from South Korea, and then you talked about South Korea to South Korea. The stock market is very relatively cheap at the moment.

Mohnish: You have a huge advantage.

Student 9: Yeah, and highly discounted at the moment. What do you think the main reason is for that? Then do you think someday it's going to be recovered from that discounted price?

Mohnish: I thought maybe you would educate me on that.

Student 9: I just want to know what you're thinking.

Mohnish: Well, I'm not an expert on the South Korean market. I think the one part which I think is kind of an irrational part of the market is the Korean preferred. The Korean preferred basically are economically similar to the normal common stock. The only difference is the voting rights are not, I mean, according to what we have little or no voting rights, but usually for many of them, the economics are the same, but in many cases, they are trading at half or a third of the equivalent common. One simple thing to look at is perhaps a basket of the Korean preferred Korean. The Korean preferred stocks, like let's say for example, Hyundai Motors, so you can buy the Hyundai Motors common stock, but you can also buy the Hyundai Motors preferred stock. If you pull up the stock prices and charts on the two of them, there's a huge difference. The difference should not exist, or the difference should be very small, because the only difference is the voting rights. In an efficient market, I mean let me take the example of Google. Google has two classes of stock, one close at 990 or something today, and the other one closed at 970 or something. One has more voting rights than the other. The difference is 2%, for example in this case, the

difference is huge. One of the reasons the difference is huge, I think, is because the Korean people kind of look at the preferred with some disdain because they came out during the crisis, and it was part of the bailouts inside. There's a taint to them. My understanding is in the taint to them when the local Korean population looks at those preferred. I think you may be in a better position to understand why Korea trades where it does. Part of it is, there's a transformation going on right now with the tables and the power, and I mean there was a lot of abuse in the past, some of that getting cleaned up. Part of it may be the person 40 miles north of Seoul, there are some issues there. But I would say that's a good hunting round. I'd say South Korea, especially amongst the preferred, the small caps and such. I think there's some very good value there. I find the South Korean situation kind of peculiar because when I look at... I was recently in Seoul when I look at the price of the real estate and it's ridiculous. I don't know of any place in the world that is as expensive as, like I was looking at that piece of land Gun Gangnam that Hyundai bought. I mean that's incredible. On one hand, you have one particular asset that is very highly priced which is also sitting 40 miles from the DMZ. But other assets in that same area are mispriced in my opinion. It's kind of interesting to see that, but I think that you have some advantages. I would focus on your backyard.

Speaker: Okay, thanks.

Mohnish: All right. Okay, well thank you very much.

Yang: Round of applause.

Mohnish: Thank you. Hang on to these, they might have some value in the future because this was what happened to that 60 million that never got cash.

Yang: Okay. Thank you all for coming