Ben Rogoff (Polar Capital) – The Importance of Not Missing Out

Tom Yeowart: Ben welcome to the podcast. Thank you very much for coming on. So, we had Richard De Lisle on earlier in the year, who I know you briefly worked with at Dean Witter. In his answer to our closing question, he highlighted you as somebody he admired for always knowing his own mind. So, I'd love to hear how you got into the industry in the first place and whether you always knew you would end up on the buy side, having started on the sell side.

Ben Rogoff: Thanks for having me on. And yes, Richard De Lisle one of the very early important influences in my career. I joined Dean Witter pretty much after university. I 'm not sure I always knew that I wanted to be in the industry, let alone on the buy side. But you know, part of the milk round process, lots of my peers were going off and interviewing for glamorous jobs and that seemed like a reasonable way to spend some time. I went into the whole thing completely ill prepared and not quite sure what an investment banker did let alone whether or not I had the right to become one. But after the event actually was quite influenced by a family member who was working on the sell side, and it was all quite glamorous, wasn't it at that point. I had a Master's degree lined up to do and ended up sending 85 letters or so, and two came back with, yes you can come and join us as work experience. I went to the first one that will remain nameless. The second was Richard De Lisle's, Dean Witter in London. That's where I met him. It was a bit of a baptism of fire and I think by the end of it I realized that I definitely wanted to get onto the buy side.

Tom Yeowart: How did you get into tech investing?

Ben Rogoff: So, Dean Witter came to a close because of the merger with Morgan Stanley, and I think Richard told a version of events that I would very much like to dispute. I don't think I've interviewed as well as I did that day with Morgan Stanley, where I spent I think something like four hours in the HQ talking to a very nice chap in structured products. And ended up, winning myself a place. You know, I ended up posing a question in my interview to my interviewer which resulted in him pacing around the room for about 10 minutes, complete silence, and then in the end, he had to ask me what the answer of the riddle was. And so, this for me is like one of those key moments in my life. I got the letter, would you like to come join? And ended up actually going to Clerical Medical as was, for about a year and a half as an analyst.

And your question about how did I choose tech? I mean, frankly, I was asked, would you like to do banks, I think it was, and would you like to do tech? And you know, I'm an early seventies child. I just about made it in a sort of a digital native to that 8-bit computing period in the mid-eighties. And it was very easy decision for me. Actually, at Dean Witter, I was the youngest person on the floor. And I naturally was the person to ask, what's this Netscape thing? Is it something we should be interested in? So, it was a very easy decision. I did 18 months or thereabouts at Clerical Medical and then got a call from Aberdeen. And that's where I suppose my career on the buy side started in earnest.

George Viney: What year was it that you joined Aberdeen?

Ben Rogoff: Oh, it was in 1998. Just in that early part, proto bubble really, where you had that cohort of .com stocks that were getting interesting.

George Viney: And so, you saw the bubble grow and then collapse. And I suppose you were young enough that it didn't wash you out of the industry altogether. Some were so battered and scarred by that experience, they left investing, let alone tech investing. So, what kept you keen?

Ben Rogoff: It's a great observation. I was very lucky to have been shielded. I was probably the de facto number two or joint number two on that team. So, I have a lot to sort of say thanks to my boss at that time, John Pullar-Strecker who was very much the front man and invariably shielded us. He's a very g good man actually to have worked for, I don't probably say that enough publicly. And so, he took most of the buffeting, but nonetheless, it was incredibly humbling the whole experience.

And what kept me in it was that well, I guess as you say, I was young. I think that we had learned a lot during that period. I think there was an awful lot of battlefield promotion that went on at that time. And I suppose what doesn't kill you, makes you stronger and I feel that I learned a lot from that period and I'm excited about investments. Picking up a fragment of information that might allow you to get to an investment idea before somebody else, remains just hugely exciting.

George Viney: Are there single companies or stocks that you can think of that really come to mind when you're thinking about that era. The ones that failed or even maybe the ones that survived and came out of the ashes, the Amazon's, the Netflix's that ended up being the defining companies of the next era?

Ben Rogoff: Well, I mean, not many. I think that's the sad lesson of that period. It was formative in so many ways, not just in the humbling... I studied history at university and the challenge of writing something coherent from a very tiny subset of information, and to do that every week is not that dissimilar to the job of a fund manager.

George Viney: Tom and I are both failed historians.

Ben Rogoff: Failed historians, exactly. Well, actually it was hilarious. About two years ago, I went off to a regional conference where I was billed as historian and tech visionary, which was about as painful... and in fact, my youngest son just continually rips me when I have to ask his help with how do I connect to the Wi-Fi or something. But I thought you were a historian and tech visionary. So, getting back to the question, what was particularly tricky in that period was that in the end, nearly everything cross-correlated. I remember on the way down, let's say it was in '01, putting some really compelling slides together that showed how can this stock trade with this stock when this stock's a real one and that's not a real one. And in the end, both stocks went to zero. And again, that only happens really once in your career where what you thought you understood about a business, you knew was only a subset of the super set of information, but in the end, they were the same asset.

Important for me as an investor was the Google one and Google didn't become public until much later. Google was being bandied around in a car park for a million dollars or whatever it was, and Alta Vista said no, so the story goes. And that as a public market investor is an incredible thing that not only does this industry, my industry, tech industry over promise, under deliver, and then obviously blow you away 20 years later. But the being early can be so fatal, primarily because the first generation of companies that are often used to play a theme often get completely wiped out.

So, Amazon was the one that disproved that. The other thing you can't help but notice as an investor was that one of the puts on Amazon at that earlier time was that the market cap of this company is bigger than books, music, and video were the markets that Amazon addressed. Now it's the world's largest public cloud computing company. In there is something really exciting, that analysing a business just based on what it does today, not understanding what the denominator can look like 10 years out. As I'm saying this to you, I'm getting goose pimples. That's the excitement about being a growth investor and specifically a tech investor, where addressable markets can turn out to be orders of magnitude bigger than what you thought they were.

Tom Yeowart: Can we take a step back and hear how you ended up at Polar Capital? You were quite young. Polar Capital was quite young. What was the opportunity, what attracted you to Polar and what was it like at the time?

Ben Rogoff: I'd done four years at Aberdeen and at the end of that tech cycle things weren't great there. I had some nice relationships. Martin Gilbert, I'm still in contact with, time to time. I had a nice working relationship with Hugh Young and the late Chris Fishwick. So, no real complaints about Aberdeen, but it had sold some of its retail range to New Star and the plan was that I was going to stay behind and run some segregated mandates, I think, or some sort of leftover product, and that didn't really sound that appealing and the team was breaking up anyway. So, an opportunity came in to come and work at this relatively young company, of which I knew very little other than that the founders were these sort of tech investing legends. And I came for an interview or two, had a really very constructive conversation with both Brian Ashford-Russell and Tim Woolley, the founders of the business. Also, I met with Charles Hale, who was also a bit of a legend. He was the chair at the time and he had been running DLJ in London, which was perceived to be one of the highest quality, sell-side brokers at that time. So, it was a good opportunity and it was a natural home and it was a business that had been built around tech. So, one of the very easy decisions that I've made in my career.

Tom Yeowart: Over the course of your 20-25 years doing tech investing, are there any general rules or guardrails you follow to keep you on the straight and narrow, because it's easy to get excited about the opportunity but how do you avoid the pitfalls along the way?

Ben Rogoff: It's almost impossible to avoid being caught up in excitement. As a growth investor, our antennae are primed for excitement. We're looking for opportunities that other investors will wait for because the range of outcomes is, for them, unpalatable. So, the day that you cease to be excited about technologies that can change the world is probably the day that you should be doing something else. So, there's an inevitability that you're going to get caught up with excitement. What you try to do is not make the same mistakes twice. I think that's actually relatively easy. I think the bit that's harder is knowing, on the way down at least, where the bleed has come into your portfolio. You may have avoided all of the nonsense of late last year. You may not have done SPACS, and you may have looked at crypto with incredible scepticism as we have and have written about, and yet not be aware that risk appetite has bled into the valuations of some of your names. So, invariably there's an impact that's been felt positively and then in hindsight, negatively.

There are a few things that we do as a team, an investment process that we've, I suppose, finessed really over the last 20 years to try to avoid making those mistakes. The way we do that is to avoid early stage investing. I think Brian passed on to me the observation that in the end public markets do a pretty poor job of pricing early stage risk, and that if you're going to do early stage tech investing specifically, it should be done elsewhere. One of the features of this last bull market that has made me a bit uncomfortable was this idea that public market investors should invest in private companies because private companies are staying private for longer. And you know, we took quite a lot of inbound on that. And we never really gave it any thought at all. One of the things that I have observed during my 20 odd years has been that not only is longevity far from guaranteed in tech, but also, it's the sort of Donald Rumsfeld unknown unknowns that get you. So, if that's true, maintaining portfolios that are utterly liquid should be a thing. People only talk about risk when things are going down. And they talk about liquidity, likewise, when you're on the back foot. But for us, liquidity is absolutely critical to how we invest. So that would naturally keep us away from investing in pre-public companies. It keeps us away from investing in companies that are too small really.

We try to stay away from companies that are all about the TAM, total addressable market. If you're not in stocks that are losing money or expected to lose money for the next 10 years, you are going to hopefully not be ravaged when sentiment turns against you. So, we try to invest in businesses that are within sight of cash flow break even. I think one of the things that is tied up in being a growth investor, tech investor is that forward P/E is a very poor proxy for value, but when things go awry, you really do want to know that your companies are properly capitalized and don't require capital to make it to break even. So, for us, they are absolutely prerequisites for investment. The other bit that you can get very wrong as a tech investor, of course, is being too late to a theme. Thematic investing is great as long as you are not the last person to realize it's a theme. And so, one of the things that we are particularly cautious and careful about are investing in later stage technology companies. Companies where terminal growth rates have probably moved into the negative zone, but where the facade of growth is maintained by either M&A or by financial engineering.

What we try to do is avoid the very early stage of a technology life cycle and the very late stage of a life cycle, and then try to focus on where change is occurring in a non-linear way. Again, doesn't keep you out of trouble entirely as the last period of the markets has demonstrated, but it does keep you out of some of the most extreme value destruction.

Tom Yeowart: So, in other words, you're often not adequately compensated for the risks you take investing in very young, immature technology businesses, but equally those tech companies that are more mature, that are perhaps at the top of the S curve, whilst they may look cheap, they're often risky too, because there's often no reversion to the mean.

Ben Rogoff: If you're making a black and white televisions or you're a horse and carriage maker at the time of the car or the colour TV, P/E is going to be a very poor guide for your future relevance. This idea that tech companies don't mean revert is critical to why the investment toolkit for a tech manager is different. If there's no mean reversion, then value investing as a rule is quite a dangerous thing. In tech, you know, Yahoo never came back. There's obsolescence risk. And then there's the financial engineering thing where, and again this is in my humble opinion, once a company's shareholder roster is dominated by value investors, the range of outcomes diminishes. It becomes much harder for companies to invest in R&D, for example, that might allow them to become a Microsoft or an Apple that reinvent.

You can see it in companies like Oracle, where they've done a wonderful job of taking a product where maybe terminal growth rates have been challenged, but ultimately you can deliver very solid earnings growth through a cycle. But then when you look more closely and see that, it's a company that used to be basically net cash and now has 80 billion of net debt. That tells you just how much heavy lifting's been done by the balance sheet.

George Viney: There does seem to be opportunity in some businesses and maybe the sample size is too small for it to be actionable in a consistent way, but businesses that are written off as legacy tech that then do something special to extend that curve of growth. And of course, Microsoft, Apple, Google have all been written off in the last 10-15 years and traded on low double digit, single digit PEs in some cases. And those were great buying opportunities. So, are there any lessons to be drawn from that or are they too binary or hard to create an investment process around for that to be an important part of how to invest in the sector?

Ben Rogoff: It's a great question and you've highlighted some examples that disprove the rule. I would say that we are talking about names that made it, and that survivor bias, I think, plays out here because a lot of the companies that don't make it need to go into the private domain and then be run differently. One of the things that was really formative for me was the experience of Dell before it went private the first time. It had been a kind of super growth stock when PCs were in demand in the nineties. And then struggled a bit, throwing off cash. And I can't remember exactly the details, but from memory, the company did something like 20 pieces of M&A in the last two years as a public company. And the revenue line was flat. There were lots of people that were saying that this was a good value stock and what have you, but to me there are very few times that companies ever show distress. I've done thousands of company meetings. I don't think I can recall a single one where a CEO said, this new technology is real trouble, or I'm in real trouble because... When things are not going well for businesses, there's becomes a slight dishonest dialogue with investors.

And sometimes the best decisions are then made privately where you don't have to have that relationship with investors. You can have a PE sponsor that takes you private, you can then dial down your growth expectations and be more honest and I'd put that in inverted commas. I don't think anyone's being dishonest, but just the reality for my business is that we are now a zero-growth business. If we run our business as a zero-growth business, we might not just do a 5% margin, we might do a 30% margin, and that obviously is a PE type playbook. So, my gut feel is just as VC is a better way to access early stage businesses, my gut feel is that late stage businesses are best accessed in a PE form. Sometimes that doesn't happen because the companies are just too big. If you look at Oracle, what Larry Ellison and management's done is sort of do the PE playbook internally by buying in the stock. So, you are shrinking the share count. It's real. Oracle is a case study in what you are supposed to do. So, for me, it's about this idea that at certain ages and stages of your life probably there are ways to behave and the same must apply to stocks. It's perfectly reasonable if you're an early stage company with the right shareholders to invest for growth. But there is a point in your corporate life cycle where you need to dial down that growth trajectory and deliver profitable growth. There's nothing wrong with that. It's like the Good Will Hunting idea. It's not your fault. This is what success looks like. There's nothing wrong with growing old as a successful tech company.

I also think that it's quite hard for companies to retain key talent when your corporate message is I'm a 5% grower with profits, when that talent is portable and could go off and work somewhere more interesting. So that's why we naturally gravitate towards companies with momentum. I'm not talking about stocks, although they can sometimes be momentum type stocks. Its business' with momentum attract talent, and they retain talent, and they can do some extraordinary things. And when a business is at the end of its lifecycle, it tends to have less good talent. So that's why we try to exclude those two ends of the corporate lifecycle.

George Viney: Yeah. And there are very few Amazon's in the world that can then create a second big, even more attractive, higher return on capital business.

Ben Rogoff: The reinvestment risk in this industry is much higher than anybody thinks. Money flows from the controversial to the obvious is one of my favourite investment maxims. The idea that you've succeeded in Product A doesn't guarantee success in Product B, does it? I mean, you can see that across the piste. And the companies that have managed to reinvent themselves, and there are some, they're very few in number, even if they're large in market cap. Like you say, Microsoft and Apple were both case studies. The first week I joined Polar, my first proper buy for the trust was I bought, I covered the index position in Apple when I think a headline hit the tape that said that they'd had a million songs downloaded on iTunes. At that time, there was a rumour I think that Sony was going to buy the business. I mean, just how absurd does that sound now? You know, Sony was going buy Apple. So, at that point people had kind of all but written off the business. So, it can happen. It's a little bit like Tesla can happen. Tesla has been an incredible investment for those brave enough to have bought it when it was pre-profitability. But for every Tesla, of course, there are 10 names that no one can remember the name of that they didn't make it.

Tom Yeowart: How do you manage the sort of fear of missing out on the Tesla's of the world?

Ben Rogoff: Well, actually it's a really nice question because I think the answer is I don't manage it. Fear of missing out is one of my defining characteristics as a fund manager. It must drive my team mad. I think Tim Woolley very early at my time at Polar impressed upon me the importance of not missing out on the big winners. Like when you look and you decompose the returns of tech over the years, you absolutely can't miss the big winners. Now you, this is where Brian came into the mix, you also have to be very careful of the banana skins that are endemic in a sector like ours. You know, capital is raised because of a promise and a long-term disruption, this, that and the other. And the reality is most of those companies don't make it. So how do you marry this idea of avoiding banana skins but not missing out? And we've tried to do that in some of the investment process that we've already talked about today. But I think the answer is, I don't want to manage the FOMO risk. I want to be FOMO.

One of the things I screen for are multi-year breakouts. I want to know any stock that has made a multi-year high. In fact, Richard De Lisle, I have to thank for this one, who pointed out, I think when Schlumberger made a multi-year high, having made a high in the Yom Kippur '73, and then made a breakout, and I think he came around to everybody at Dean Witter at that time and said, to get on the phone and pitch Schlumberger. But this idea that there is a stock that 15 years later has taken out a multi-year high, that's FOMO. That's saying that there's a story somewhere in the market that I don't know about, and now I do, let's go and do the work on it. So, we screen for relative highs, we screen for multi-year breakouts. Because in the end, you know, there are always smarter people than you in the market. There's always someone looking at an area that is tangential to yours, and I want to know about it.

And the way I tend to express that FOMO is at the tail. So, in the case of PCT, over time we've run a 10 to 20 stock type tail where, if you looked at the attribution over the years, I'd like to think it holds its own. But really, it's that proving ground for interesting ideas that we can then do more work on and then if we get conviction in those ideas, let's build them into proper positions. But the tail is there to capture that FOMO, to be able to feed that FOMO part of my approach.

Tom Yeowart: It's an interesting contrast with some of your peers who are far more concentrated and you are purposefully by design diversified and more index aware. And clearly, it's linked to trying to capture the winner’s long term.

Ben Rogoff: Well, it's a few things. This idea that I'm clever enough to know who the big winners are. The hubris built into that assumption is quite meaningful. It also says that you're not the last person to have worked that out. So again, it sort of runs in contrast to the idea of money flowing from controversial things to the obvious things. It also just doesn't rhyme that well with history. I think almost every period that I'm excited about as a historical parallel would show you that the ultimate winners in an industry are almost never the ones that you thought they were going to be at the beginning. So, I think the shotgun approach as a thematic investor is the right approach. But it also does require you to run your winners when they've identified themselves. It's a lot easier to own Apple for the last however long if you bought it like I did in 2003. It really is a lot easier to run a winner when you've been early to it. And so, it's quite important to be in there early.

George Viney: And your diversified approach also means that the costs of errors are manageable. It also requires you not to run your losers either. And so, you need to be ruthless in cutting out those losers.

Ben Rogoff: Yes. So, I don't know if you've read the book Talking to Strangers by Malcolm Gladwell, but it's one of the best things I've read for years. What I read when I read that book was almost a confirmation of our investment approach, which is incredible because it was nothing to do with investment. The observation that says that high court judges make bail decisions, this is in the States, correctly 54% of the time was sort of how I feel about investment. So, if you are going to have a hit rate, and obviously we'd like to be more than 54%, but let's say 54%'s the number, absolutely critical to that is that you identify the 46% and sell them and then bring them back into the top of the investment funnel to find your 54% again. If you don't get that right, 54% is a lousy number. But if you can identify the 46% early, that aren't going to be the next Apple's and Microsoft's and get that back into the top of the funnel, that can work. And so, when I look at my attribution, almost always we add value selling stocks that are losers.

I don't pretend to know much about other sectors and other investment styles. But people tend to talk about their winners, don't they? They want to talk about I bought this then and it did this, that, and I was brilliant. And actually no one talks about sell strategies. Not really. They don't talk about, well, we've got it wrong. I have this story that I've shared a few times, but it still tickles me. My late father who dabbled occasionally in the odd stock bought a company years ago, I think it was called British Dredging. And this was not a successful investment. Thankfully it was for hundreds of pounds, nothing more. He just refused to sell it, and it just went down every day. And I remember saying Dad, why don't you just sell it and no, no, no, it will come back. He refused to sell it even when he discovered that it wasn't British and it didn't do any dredging.

So, I think that one of the permanent advantages to us as institutional investors is the ability to take losses. And we should. We had a stock some years ago that we were totally excited about it. I shan't name it. And we continued to invest in that stock as it performed poorly. And when we looked at our attribution reports, this is a good 15 years ago, we were stunned by how much we had lost in this stock. Again, you only do that once. When stocks don't act right there's often a reason. And so, we listen to the market more than perhaps the younger version of myself might have done. I think challenging your assumptions is just something you should be doing all the time.

George Viney: What are the rules for selling? And then we'll come and talk about the current environment later on. But in this hall of mirrors of pandemic, war, rising inflation, rising interest rates, there must be lots of false sell signals.

Ben Rogoff: That's actually a very spot on observation, which is that this period has been challenging actually for our approach in that, change is supposed to happen in a non-linear way. That's what excites us about the S-curve. And actually, what the pandemic period did, a bit like the Y2K period in the late nineties, was compressed that adoption curve.

And so, the mistake that we and others have made in this period is that when you've had this incredible acceleration of adoption in ecommerce or telemedicine or whatever application you want to talk about. There have been more false signals than we would get in a normal cycle because people were forced to do things that maybe they weren't ready for. Do we think that on a 20-year view that telemedicine is going to become a critical part of how healthcare is provided? Of course. Just look at the patient doctor ratios. But when an adoption curve goes from 1% to 90% and then starts to fall back you don't know where it's going. And so, the best thing you can do, I suppose, is again, remain liquid, remain pragmatic, not being afraid to change your mind, not being afraid to say, hey, we were caught up in that. And if you look at our overall exposure now to what we would've called the work from home cohort, it's very minimal in the portfolios.

George Viney: The value of themes is it helps you remain anchored despite what you've said in terms of keeping open minded and selling if that's the right thing to do. How are themes developed and as tech broadens out from hardware and networking and so on to touch all industries, the opportunity set has become much bigger.

Ben Rogoff: It absolutely has. One of the things that we observed some years ago was the idea that technology was changing from something that was enabling other industries to deliver units of compute at a lower cost into something that was just enabling new industry. And so, whereas Sun Micro, or Compaq would sell a piece of equipment to a bank to enable them to be more efficient, Google was actually buying that equipment and creating the online advertising industry. You had this trend towards the incremental unit of compute falling both in price and scale, which then of course enabled new buyers of that equipment. Well, if you follow that through logically, the cloud now enables businesses to completely reinvent themselves. The advantages that larger companies have had through the ages, certainly as it relates to being able to afford a Sun Microsystem server or Oracle database have been meaningfully reduced by the advent of cloud. So, for us, cloud and the smartphone were hugely democratizing things that happened to tech. And that's why in the end, the market that we serve can be a super set rather than a subset, just a productivity tool for other companies to do their job better.

How have we thought about that? Well, actually the core themes within the trust have not changed that much. And that's because the penetration rates largely have stayed within the sweet spot. The cloud has been sort of 20 odd percent of compute for, I don't know, at least five years. How is that possible? It's near a $200 billion industry, how is it still possible? And the answer is because new use cases happen when you can deliver AI-as-a-service through a cloud. So, our themes evolve, but ultimately the infrastructure side would be cloud primarily. And then the application side, we look at things like obviously software where we would look at say, software-as-a-service penetration as a percentage of software. And then there are sort of slightly more mature ones. So online advertising and ecommerce. Ecommerce, again very difficult to know exactly where we are because of the pandemic effects. But advertising, we know we are obviously a lot later into that story. And some estimates say that above 50% of global advertising is done online.

So, the answer is that the core themes that drive us haven't changed much, but the emphasis does. And so, it's not just a function of the pandemic that we've taken down our exposure to online advertising, it's also a function of just the reason that that area is feeling a bit more cyclicality is because penetration rates are meaningfully higher than where they are elsewhere.

And then what you try to do is make sure that you don't miss any of the new big themes. I just came back from a Gartner conference and you know, I go to those to make sure that we're not missing out on a new big theme. And actually, most of the big themes, and maybe this is a challenge for the tech sector going forward, I think most of the very big themes are quite well understood. The one that remains quite difficult to put your arms around, is AI. It's still very early stage about what AI will ultimately look like. It may well be that we'll have four themes in the portfolio that are all AI enabled. It's just still very early.

George Viney: Where do you stand on AI? Because there's an emerging school of thought that suggests that the benefits won't accrue to the incumbents. Those with the best data sets and the money to invest in data centres and the most sophisticated computational tools. And that actually the benefits will be much broader spread and Stable Diffusion, platforms like that, will give AI to everybody, and that could be very disruptive, not just for applications, but for software development in total. So, do you think it's still too early to know at this point? Or do you have a hunch as to where it's going?

Ben Rogoff: It is a great question. We debate whether or not AI is a general-purpose technology or not. If it is, then history says that the benefits of general-purpose technologies accrue to others. Maybe human kind ends up better off for electricity or for steel, but actually the greatest beneficiary groups as investments were new applications made possible by that general-purpose technology.

So, at the moment, I think it's premature to say that AI is a general-purpose tech. Like has everything been rearranged around it? Absolutely not. Is AI being used to make better decisions? Or better-informed decisions using data? UPS is an example. They are said to have used AI that informed them to get their planes out of China before lockdown. That's an incredible example of how you might apply AI in a way that nobody would've imagined four years ago.

Right now, we are in the infrastructure stage. So, if you're excited about Jet engines, you would've been just fine investing in airlines and actually airport infrastructure for a long time before really you needed to make the flip to investing in land in Benidorm, or investing in Visa and MasterCard or American Express because people didn't want to carry cash. So, I'm a huge believer that general purpose technologies enable a whole bunch of applications, electricity did for radio for home lighting. That's where you wanted to invest. Not actually in the electricity companies themselves. But for a period, you can make very large amounts of money investing in the infrastructure.

And for us right now, the AI infrastructure is played primarily through semiconductor companies, where 30 to 40% we think of the value add that accrues to AI will be in the storing and processing of data. You're going to do that with DRAM and you're going to do that with processors and so on. And then a very large portion of it is also in the cloud, where for most people, unless you're a big bank or I don't know, a government organization, you will do your AI in the cloud. And I've heard a stat somewhere that says that 40% of incremental cloud workloads relate to AI. So, I think right now it's absolutely playable within technology, but I'm also hopeful that there will be benefits that accrue beyond the technology sector too.

Tom Yeowart: You mentioned semiconductors. Again, just interested in your thoughts on where we are in the cycle. The cycle has been slightly distorted by what's gone on over the last sort of two years and the supply demand dynamics shifting around all over the place. And you know, semis are a cyclical industry, but interested to hear your thoughts.

Ben Rogoff: It's a good question and a very difficult one to unpack because the pandemic has had some pretty big impacts on the semi cycle as we know it. And then on top of it, there's obviously geopolitics that are playing a big part here. When I started in the nineties, this was an industry that typically added capacity at the high because, you know, didn't have any and then wished it hadn't. And you ended up with these incredible highs and lows. That last big cycle happened in the nineties. And part of that was to do with just the excess of the nineties, which was all about PC's, smartphone, Y2K and all of that stuff. But also, it was to do with more stress and just how hard it was becoming to be a leading-edge manufacturer of chips. So, the capital discipline that accompanied that has had a profound impact on industry profits. And that I don't think is likely to change anytime soon.

Against that, unfortunately we have to deal with this idea that Taiwan is 90% of, I think, of effectively leading-edge wafers. So, I'm having to think about odds of a Chinese invasion. Not things that we've ever had to really deal with before as tech managers. We don't necessarily have the high ground here about geopolitical risk as it relates to Taiwan, China. On top of that, we had this pandemic effect where you couldn't ship a car for a dollar part. We've got sort of balkanisation of supply chains that I think is unfortunately inevitable. Again, it sort of feeds into that narrative of are we at peak globalization. We may be as it relates to chip manufacturing. Now if so, that will be good for equipment makers, all things being equal, if you know industry utilization rates fall, you'll need more capital equipment. So, we have exposure there. I think as a rule, it's hard to see how it could be positive overall for the industry. Because the reason that there's been so much consolidation is because every step of the supply chain requires an incredible amount of domain expertise. So, one of the stories that my colleague Xuesong tells is how hard it would be for TSMC to build a leading edge fab in North America. Things like the temperature, the air quality, all of those things have a profound impact on yield. And if you can't get a yield to a decent number, it's a complete white elephant.

So, where are we in the cycle? Demand is obviously waning. We've had pull forward in areas like smartphone and certainly in PC. There're some question marks about cloud given that macro weakness is showing up a little bit at the edges in some of the cloud growth rates. So, I think there's a reasonable amount of uncertainty today on demand. I think that means that all things being equal, people will hold less inventory. So, we're beginning to see some inventory draw down in the semi industry. But in a world where you are less sure about your supply from China, and from China's perspective, you are less sure that you'll be able to access leading edge technology. And the lasting impacts of not being able to ship a car for a dollar part means that I think that the extent of the drawdown, I'm hoping will be relatively modest. Now the good news is tech investors, semiconductor investors have been well trained to buy earnings cuts.

Tom Yeowart: Many people have drawn parallels between now and the tech bubble. Can you talk about what some of those parallels are, but also what, in your view, are the differences between now and then?

Ben Rogoff: Yeah. I'm 20 years older is the principle difference from my perspective. History doesn't repeat, it rhymes and I think there are certainly elements within today's market that rhyme with that earlier period. The similarities first would be that late cycle exuberance was definitely on offer, wasn't it? The average valuation of a high growth software stock moved to levels that we hadn't seen before. We wrote about it. I think that we were at peak disruption. If you think about the pull forward, that accelerated adoption curve, that happened just during the pandemic, was not dissimilar really to what happened in Y2K when there was a corporate imperative to redo your systems. And as part of redoing your systems, it gave you a chance to invest in new technology. And of course, there was the dot com story on top of that, deregulation and the kind of catalyst for accelerated change. You also had incredibly relaxed financial conditions. You had excess savings. You had one of the other investment maximums that I'm particularly fond of, that there's only one thing worse than losing money, and that's watching your friends make money. That definitely played a part in this last cycle as it did in the late nineties. Non-traditional investors doing things that are unusual, it was also an element that we saw in the late nineties. IPO market was also pretty bubbly at the end, this time round. We've talked about SPACS, we've talked about the privates and we've talked about crypto. Oh, and also, I should say, of course, loss of policymaker support where we've now got a Fed that is no longer aligned with our interest. That was also true coming off the end of the irrational exuberance period in the late nineties. Sorry, another one, which is equity ownership as a percent of household assets, we got up there.

Where is it different? The starting point on valuations is quite different. The scale of the industry is profoundly different. The margin profile of my businesses is profoundly different. Now, we are talking about a tech sector that back in the late nineties got to valuation levels that I think we were trading on briefly, 60 times forward earnings, 2.5x the market multiple, that kind of dichotomy between new economy and old economy. Yes, there's definitely been features of that this time round, but nothing like as bad as that. Today tech stocks trade in the twenties and roughly 1.1x the market multiple. Maybe this is an overly sanguine take on it, but the starting point in valuation is profoundly different. The excess of this cycle feels like much of it is off exchange. If you go to that earlier period, we would have an IPO every day in certain months in 1999/2000. This is no joke, the average age of a business that listed in the late nineties was three years. Clearly some of the first day pops, you know, the moves on the first day were bigger than they would've been at previous periods in the last 10 years. But when you compare those to the late nineties, it's more of an echo than a repeat performance.

I think the excess was in things like SPACS. I think it's been in this clamour for private companies, in public company vehicles. I think it's in crypto. I think crypto at its peak was a 3 trillion-dollar industry. And I don't know what happens next there, but thankfully it's not in our world.

Tom Yeowart: There does seem to have been a trend though over the last decade where maybe investors have seen the example of Amazon and said, well, you know, you can postpone profitability for a long time because the total addressable market is huge and all these things. And we are now in a very different capital market environment where the cost of capital is much higher and investors seem to be demanding profitability today rather than giving companies the benefit of the doubt. How does that impact your opportunity set and some of the less mature companies within it?

Ben Rogoff: At this point, at least, it's a very different capital market environment. And I think it means that some of the innovation that might have taken place is put on the back burner. Project seven, eight, and nine at Alphabet or wherever may just be put on ice or cancelled. The good news is that many of our companies are able to better manage costs than maybe the market believes. And I think that's a function of scale and gross margins. The question of whether or not they will is something that you always should grapple with when you invest alongside founder-led businesses, even the very best ones. I think over time those companies that I won't call out, but those companies have been pretty good allocators of capital. But there are periods like we might be in now where they're out of sync. I go back to 2015/16, one of our holdings was a company called NetSuite, which was ultimately bought by Oracle. I remember meeting the company and saying, the market conditions are completely different. What we need from you is less growth, but with some margin. And I remember the CEO saying to me very, sort of gently, it takes time for companies to change their M.O. We can't act as fast as you can as investors.

Beyond the obvious long duration assets will be valued differently against a higher discount rate, the stuff I would call out is that the weight of incumbency comes down a bit. All of a sudden, it's not so bad being an incumbent because your customers are not quite as pressed as they were before, because the overall pace of innovation slows in this environment. And I think one of the challenges that we have and is not trivial, is this idea that new technologies are almost always over indexed to innovation, not just because they are the nuts and bolts that enable innovation, but because the most innovative companies are the younger companies with nothing to defend and everything to gain. So, periods like this are difficult not just from a revaluing what's the right price to pay for that asset, but they also take out some of the excitement and the challenge to incumbency and they can be multi-year in nature.

But before I end up sounding really negative, who knows? Five minutes ago, the narrative in markets was that tech disruption was everywhere endemic. But I also go back to the forties as a period post-war, but the inflation experience post World War II in the US doesn't look that different to the one that we are experiencing globally today. Where ultimately a very dramatic change in demand, based on collective trauma and near-death experience that results in a step function change in demand at a time when supply cannot respond because you'll be making armaments, and you go from 1% CPI I think in 1946 to like 19% in 1947. The Fed basically extinguishes it, induces a small recession, and then I think by 1949, inflation was zero. Maybe this is wishful thinking on my part, but I haven't given up the idea that disinflation driven by technology and other things is over. But right now, like you say, the environment is much more challenging for growth companies.

George Viney: Where does that leave your thinking for the mega cap tech businesses that have really defined the returns for technology businesses but markets overall globally. Will we look back and say that's an anomaly, or do you think that after some cost cutting the incumbents benefit and we see three, four, five trillion market cap companies?

Ben Rogoff: All that work that's been done about if you had taken the largest companies in the S&P and then held them for the next 10 years, they've been pretty poor investments and I understand that. So, the companies that you are talking to here are the Apple's, Microsoft's, and Google's. It's difficult because the most important reason why they're so big in market cap terms isn't because of the valuations that people have applied to them. It's because their earnings are very significant. Google is trading roughly on the market multiple and Apple not that far off, a little bit above market multiples. So, you are really talking about the earnings role that these companies have played, which again, is a quite profound difference to where we were in the late nineties when the biggest companies in the benchmark were often the ones that were trading on 80x or 100x earnings.

The reason that those companies are so big from an earnings contribution perspective is because they are natural monopolies in very large markets. And maybe that's the bit where, again this time is different being a very expensive phrase as we all know, but how many times in human history have, I don't know, 40% of the world's population been using a particular device or how often has that ever happened in an industry? 90% of people online are using

Google. So, this is a very big market that is dominated by essentially one company because of scale advantages, a better mouse trap, but now a natural monopoly that makes it very difficult. Ultimately, your search results, the ROI that you get from advertising there, will be higher than it will elsewhere because of the scale. While we're on this, when I started at Polar, we were much more multi cap. I didn't inherit a portfolio that was built around a benchmark. That was a reaction to the observation that smartphone and the internet as conduits for change are naturally not mean reverting. The returns come to scale.

So, I would need to believe that that was no longer true and for that to happen, I would need probably some regulatory intervention that would say, I'm really sorry but 90% is no longer an acceptable number. Even though, by the way, YouTubers enable people to change tires on bikes in ways they couldn't do before, or enabled people to build businesses that they were never able to do. We wrote about this 10 years ago. These are some of the most enabling things that have happened in humankind. You only ever hear about the negatives associated with social media. Or again, I'm not a spokesperson for any of these businesses, but how can one not be excited about how galvanizing and enabling those platforms have been? The reason that Google is so big is because of that.

I also, just while I'm on my soapbox, I would say, and these are very big positions for us, even though most of them are underweights against our benchmark, I would say that these are non-fungible assets. And again, if you don't like semiconductor A, you might be able to find semiconductor B as an alternative way to play it. But what we've learned in smartphone is really only one company makes industry profits. And again, those are scale and natural monopoly related. So, while they remain non-fungible assets, you should expect them to remain big parts of our portfolios. But, we as investors have demonstrated that we are not unwilling to go to zeros where we feel that incumbency, and again you've talked to them about them as being incumbents, I would say that these are still growth incumbents not legacy incumbents. The risk associated with that is that at some point, the reinvestment risk at Alphabet and Apple become too great and they become poor investments for us. But so far that's not been the case.

The one thing that is something that we do think about was just how fast Meta or Facebook has fallen from grace as an investment. We own it. We were underweight it during that period, but nonetheless we owned it. And so, at the back of my mind, while I've said all of these things and am still very supportive of these as investments and they form a good part of our portfolios, is the Meta experience. And so again, being alive to the risk associated with it and not trying to fall foul of hubris, we have been taking down our own concentration risk against a backdrop where actually concentration in the index has gone up.

Tom Yeowart: Turning to our closing question. What piece of advice would you give a young Ben Rogoff at the beginning of his career?

Ben Rogoff: On a very prosaic level, I would say take more notes, write down how you feel about markets at the time because your memories can be untrustworthy. We're talking today about the nineties as a parallel, and I'm drawing on my memories of that period and my experience, but actually when you look at screens and you see what a bubble bursting looks like, when you look at, I don't know, the monthly performance of Yahoo, I've forgotten how bad that felt, how sustained selling can be. And so, yes, I think this idea of taking down notes and trying to record how you felt in earlier periods would've been really, particularly today, actually be really helpful. One other thing I would mention, I think is actually echoing what Richard said when he was on this podcast, was this idea of making sure that you get to where you want to be, to the extent that you can, get to where you want to be in financial services. This business is far from homogenous. If you think that being an equity investor is where you want to be, make sure that that's where you are. And if you think buy side versus sell side is more where your strengths are, like ultimately this sort of idea that domain knowledge is fungible is just not true. And you very quickly become, in quotes, expert in a very small portion of this industry and it's hard to move. I would say, and I've been very lucky in that I've ended up, I think, where I'm supposed to be. But I think, you know, get into that spot as early as you can because it becomes really difficult to move later.

Tom Yeowart: Ben, thank you very much.

Ben Rogoff: Thank you.