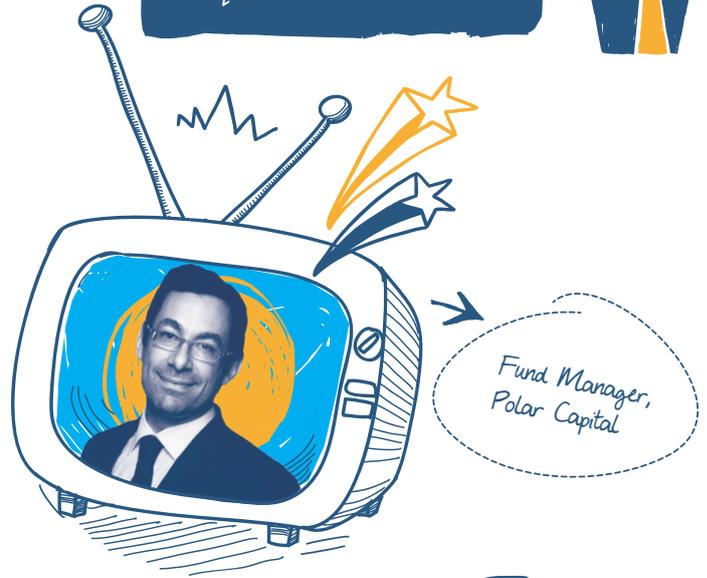


TALKING TECHNOLOGY WITH

Ben Rogoff

Ben Rogoff - Fund Manager, Polar Capital Talking artificial intelligence, FANGs and autonomous vehicles with Richard Romer-Lee at Square Mile



HOW DID YOU GET INTO FUND MANAGEMENT?



I started in the industry as an intern at stockbroker Shore Capital, where I worked for two weeks before two effervescent gentlemen persuaded me to join Dean Witter. I wanted a job where I could have a different day every day. It appealed as I am a big fan of learning – I found myself on the tube this morning pouring through research emails thinking it is funny that 20 years on I am still doing the same stuff, looking for nuggets of information, something that allows you to build a thesis that others haven't formed yet. Anyway, that came to an end when Morgan Stanley and Dean Witter merged. I wasn't really interested in the sell side so I ended up taking a role at Clerical Medical on the buy side. It was 1997 and I became a global technology analyst. I chose tech as I was 25 and it is very hard to have an impact as a young analyst in sectors that are well established. I was born at the right time for the tech story – I was given my first computer for my barmitzvah in 1985 and by the time I entered the fund management industry had fallen in love with technology.



SO WHAT ABOUT BEING A TECHNOLOGY FUND MANAGER?



A different attitude and toolkit is required, as the winners of one cycle often become losers of the next, so you need to be on top of the trends. We look a lot at where technologies are in penetration terms and try to size the market, which is no different to other managers, except in tech change occurs more rapidly and often in a non-linear way. Change always takes longer than you initially think and then as technologies mature they can be substituted and the value of incumbency falls away.

People often talk about technology investors being momentum investors, sometimes in a derogatory way, but actually what we are trying to do is identify the size of markets and guesstimate, which is all you can really do, the market shares and valuations that companies such as Amazon warrant. It is much more art than science. And then there is valuing companies. Traditional valuation metrics like free cash flow, forward P/E or price to book often fail completely to capture the dynamic of investing in companies that are themselves investing for growth. We are seeking companies with a large market opportunity and the ability to make huge margins in the future. We rarely invest in early stage companies particularly those that need capital. And I have learned that if you are going to panic, to panic early as it helps to avoid the landmines in your portfolio.

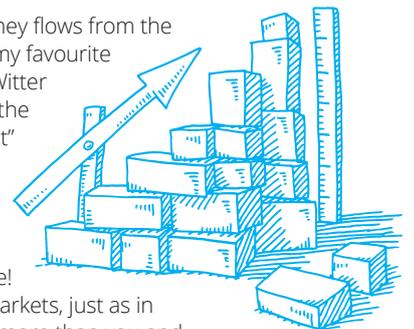
WHAT MAKES A GOOD FUND MANAGER?

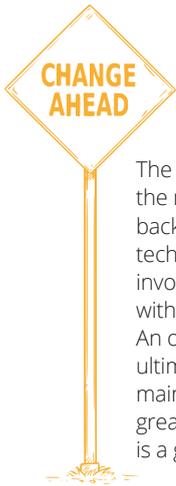


While I am personally invested in our funds, understanding that we are stewards of other people's capital, is critical. Fear of failure is a big one – I call it FOMO investment management – the idea of getting to the end of the year and having missed some of the big winners in tech fills me with dread. The desire to be a winner and beat your peers, although the challenge with that is trying to understand what time frame your investment process works best over. The industry has become more and more short term and I understand that. I am pretty focused on annual, even half-yearly performance periods. I don't think it is good enough to say you have laid out a thesis and it is going to work over 5 years. I believe you need to be able to demonstrate that your process is working over most time frames.

WHAT GOOD ADVICE HAVE YOU BEEN GIVEN OVER THE YEARS?

I couldn't tell you who told me but "money flows from the controversial to the obvious" is one of my favourite investment maxims. My boss at Dean Witter said "everyone assumes everyone is in the market to make money but they are not" which was a weird thing to hear and yet is absolutely right. Having been Head Boy at my local school, I went up to Oxford University and quickly realised I was not the cleverest guy there! It was an important lesson for me; in markets, just as in life, there are always people that know more than you and you should always remember that.





WHAT IS THE SECRET TO UNDERSTANDING TECHNOLOGY WHAT WILL WORK AND WHAT WON'T?

The key from our perspective is to stay abreast of the most important technology changes and do background work to try and figure out when these technologies are ready for adoption. Each year this involves hundreds of company meetings, speaking with industry experts and attending trade shows. An observation Bill Gates made years ago is that ultimately technologies take a lot longer to become mainstream than expected but become vastly greater in scope than ever imagined. The internet is a great example of that.

IF SOMEONE WAS STARTING OUT TODAY IN YOUR WORLD WHAT ADVICE WOULD YOU GIVE THEM?



Work hard and be passionate about what you do. And then be lucky. You can go back in life and look at people that have been successful and easily apply a narrative for that success, but you have to be lucky. I have been in that I chose the technology sector at a good time and I have worked with some great people, such as Brian Ashford-Russell and Tim Woolley. I am a believer that you make your own luck.

WILL ARTIFICIAL INTELLIGENCE (AI) REPLACE FUND MANAGERS?



Maybe, but not until my career is over! We're hugely excited about AI and have launched a fund to invest in it – we believe strongly in the long-term promise of it. To me, technology has been replacing a lot of blue-collar work, but with AI it is aimed squarely at white-collar jobs. People will pay for expertise and experience – for doctors and fund managers for example – but the challenge for these experts is they are still only dealing with sample data. Computers can process and analyse infinitely more information and this will replace human effort in many areas. Industries where there are plentiful amounts of data will likely be disrupted sooner.

The advances in neural networks (a computer system modelled on the human brain) are astonishing. Look at what happened with AlphaGo, a computer programme developed by Google Deepmind which was loaded with 30,000 human moves and then beat the world champions at Go. That was a big moment for AI. Stanford University is using neural networks to identify skin cancer early with similar accuracy achieved by doctors. We will still need experts but much of their work will be automated leaving more time for higher-value decision-making.

WHAT'S THE NEXT BIG THING THAT MIGHT CHANGE OUR LIVES IN THE NEXT FIVE YEARS?



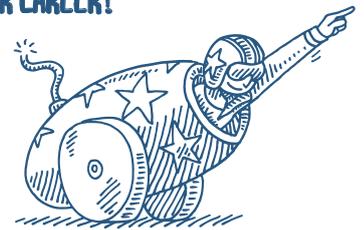
Transportation remains ripe for reinvention – the statistic I love is that cars are only 4% utilised today. Look out for autonomous vehicles – we are probably 5-10 years away but it will be revolutionary. It could change the way we live. In 10 years' time it might be laughable that we even come to an office. It's an old fashioned way of working.

One of the messages about this technology cycle has been utilisation. I remember being in Eastbourne – I was listening to a very old lady who said she was using Airbnb to augment her pension – that is spectacular.

Much of this is to do with the internet still. The internet is the printing press of our generation – it is a technology around which everything else coalesces. It is going to be fascinating watching how the Internet continues to change our behaviour and expectations over the coming years.

WHAT WAS THE SEMINAL MOMENT IN YOUR CAREER?

I don't think I've had my seminal moment. I would say my most important moments thus far were deciding to leave broking – at the time it felt like a pretty brave decision – and joining Polar Capital. I know I'm supposed to say that but I mean it! I have worked here for most of my career and whatever it is that I am today has mostly been formed here. Working with Nick Evans and rebuilding the team in our own image has also been critical; today the team is one of the biggest and best.



HOW DO YOU RELAX?



I probably don't ever feel that relaxed, I'm not that type of person. To be honest I'm only ever really relaxed when the stock market is closed! I run a football team at the weekends for my sons, play computer games – I became hooked doing background research on Pokemon Go! I read a lot, spend time with my family and holiday – something I get huge pleasure from.

IS THERE ANYONE IN PARTICULAR WHO INSPIRES YOU?



Brian Ashford-Russell and Tim Woolley have been the most important influences in my career. They embody what Polar Capital is. Brian is one of the most inspiring individuals I have met – a brilliant investor, open to new ideas and an all round gent. Tim taught me the realpolitik of investing – about making money for clients and not falling in love with stocks.



ARE THE FANGS DONE?



No – they are in rude health. Aside from the spectre of regulation, the biggest risk they face is that companies of this scale cannot keep growing at these rates indefinitely. They are also all smartphone winners; if the smartphone ceases to be the computing platform of choice then they may be at risk.

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