Trading places

Searching for growth from Silicon Valley to Beverley Hills

Rathbones



David Coombs Head of Multi-Asset Investments

David Coombs is head of multi-asset investments and joined Rathbones in 2007. He is a member of our Investment Executive Committee as well as the Strategic Asset Allocation Committee. David is responsible for developing our investment propositions for national financial advisory firms and networks. He is the lead manager for the Rathbones Multi-Asset Portfolio Funds and the offshore Luxembourg-based SICAVs.

David previously worked at Barings for almost 20 years where he managed institutional and private clients via pooled vehicles and segregated accounts. He joined Barings in 1988 from Hambros, where he managed multi-manager portfolios for private clients.



David Harrison Manager of the Rathbone Global Sustainability Fund

David joined Rathbones in June 2014 as a global equity analyst from Merrill Lynch. He is an assistant fund manager in the income team and helps manage the Rathbone Heritage Fund. He is also lead manager of the Rathbone Global Sustainability Fund.

David has more than 17 years' experience in equity analysis and fund management, including positions at Hermes and Goldman Sachs. David holds the Investment Management Certificate and a BSc (Hons) in Economics and Politics from the University of Southampton. He is a CFA charter-holder.

The value of investments and the income from them may go down as well as up and you may not get back your original investment.

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Investing is a numbers game. You spend a lot of time poring over spreadsheets, tinkering with assumptions of sales expansion, cost increases and pricing power. You ponder economic trends like GDP growth, inflation, the confidence of businesses and consumers and unemployment. You hear a lot of long, detailed pitches from a whole line of analysts, economists, executives and brokers.

But investing is also a people game. Everything that gets done in this world is because someone made it happen. They bought something. They sold something. They built something. They had an idea and the conviction to turn it into a reality. Sometimes that gets lost among the pitch decks and the risk metrics and the forward earnings projections and the general sterile environment of a City life. When you're making large investments based on the efforts and machinations of people far away from your day-to-day life. it pays to go take a look for yourself. Showing up on the doorstep of companies helps you get a feel for the place, to register how much bustle there is – and how much hustle. As the Russians used to say before Ronald Reagan stole it and used it against them: "Trust. but verify."

We say it a lot, but only because it's true: everyone is selling you something. This is reality in all walks of life, but it is acutely accurate for a fund manager. Picking up a telephone triggers a Pavlovian shoot of pain right behind my ears after decades of cold-calling brokers. Jokes aside, assuming that everyone has something to sell isn't altogether cynical – and it's not meant that way. Instead, I think it neatly frames how you should respond to offers and opportunities. There are three things you need to find out: What exactly is being sold? What is the full price? How will it benefit me? If you get complete answers to these questions, you can make a good decision about whether an investment is worthwhile or not.

So that's why we try to ensure we escape the office often. We head across the UK, over the Channel to the Continent and also to the United States — a place that hosts the lion's share of our investments. We like to take the air, shoot the breeze with locals and drive ourselves virtually to exhaustion cramming in as much on-the-ground research as possible.

Like Eddie Murphy and Dan Aykroyd in John Landis's classic film Trading Places, it pays to walk a while in someone else's shoes. It gives you perspective and leads to questions that would never have occurred to you before. It gives you the opportunity to lunch with Jay-Z. It can also lead to pain, embarrassment and discomfiture in pursuit of a dollar bill.

Just before Christmas, we got the band back together once again. Rathbone Global Sustainability Fund manager David Harrison, myself and one of our trusted brokers boarded a flight to the US. The last time, back in May 2018, we visited the East Coast, home to the venerable American titans; this time it was time to get down with the kids. We jetted to the West Coast to find out what was cooking at the heart of the American digital revolution.

David Coombs

Head of Multi-Asset Investments



An auspicious day for two Welshmen to set off to the New World: the very day England lost to South Africa in the Rugby World Cup.

It was decidedly inauspicious arriving on the West Coast, home of the greatest technology industry on Earth, to a welcome that wasn't far off the methods used in the late 1800s at Ellis Island. Queues snaking everywhere and so many guards and customs officers wandering around that it felt like a full-employment programme from the other side of the Iron Curtain. There were more than a few Germans wandering adrift from the multiple queues looking outraged with the chaos. They could still be there now.

But the worst bit – the most egregious injustice considering we were in California – was we all had photos taken which were then printed out and passed through the bored hands of several

customs officers before being collected, never to be seen again. We were using Polaroids just seven hours' drive from the nerve centre of the digital revolution! And I know what you're thinking, that's not close. But in the US that's a cinch.

Maybe we're being unfair. David and I have a theory that it's impossible for Europeans to know exactly how bad Los Angeles International Airport (LAX) is because whenever you get there you're sleep deprived from the 12-odd hours spent cramped on a plane. It always feels terrible, but is it just Luton compounded by insomnia? LAX did have fingerprint scanners, so they weren't completely stuck in the past. Although they couldn't deal with David's CrossFit-ravaged hands, somehow the machine labelled them "unexpected items in the baggage area".



NOV Day 23 Downtown Los Angeles

We got up late and went for lunch at Bottega Louie. This is a kind of woke Wolseley, except the cuisine franca is Italian rather than French and you go there for the macrons, not the afternoon tea. Needless to say we went local and both had a Californian market salad – we don't need Beyond Meat to go veggie. David spotted Jay-Z sitting near us. I may have exaggerated earlier ... To be fair, I didn't recognise him. I haven't seen his films.

We burnt off our lunch by wandering around a very tired jewellery district, discussing the companies we were set to meet and the questions we wanted answered. This was, ironically, where we first encountered the vast number of homeless people trying to get by in LA. Sadly, many clearly suffer from mental health issues and drug addiction. The contrast between this abundant poverty and the glitzy glamour only a block away seems even greater than in London and demonstrates the lack of a safety net in the US. According to county figures, the number of homeless in the City of LA is 36,165, almost 1% of the metropolitan population. Perhaps this yawning divide between winners and losers is why there's a race shaping up between Donald Trump and radical Democratic opponents like Bernie Sanders?

Meanwhile, we started to spot evidence of technology on the streets. We spent the day dodging people on electric scooters. Like Boris bikes, they are for hire on every street. So LA... In the evening, we staggered to the Staples Center to see the LA Clippers play the Utah Jazz in the National Basketball Association. There was a lot of scoring and adverts. The most surreal bit was that if a player for the Jazz missed two consecutive free throws everyone in the centre got a free burger. So every time they got a penalty a bloke dressed as a cow came running into the stands and led the crowd in mooing at the player. Millwall would love this; I'm not sure vegans would. I wonder if they offered meat-free burgers – or glutenfree buns for that matter. Unfortunately we never found out. The Clippers won though.



Fading glamour



NOV Day 3 Downtown LA/Beverley Hills

Monday morning and it was business time. We walked over to the LA Convention Center for the Adobe Max Conference to see what products and new features the company had cooked up for 2020. About 15,000 other people packed into the cavernous hall as well. I'm not afraid to confirm that they were much cooler than us. Thankfully we weren't the only chumps in suits; we spotted a few obvious financial types strewn among the aggressively cut jeans/no-sock and converse combos.

The dress code was akin to a gig, which made complete sense once the show got underway. I've never been to a software company conference before, but they are closer to a music festival than to an annual general meeting. The centre was filled with gigantic screens, flashing lights and what I'm reliably informed is called hip hop. Could have been some by Jay-Z in there for all I know...

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The rock stars of this festival were the creative heads of Adobe's main businesses: digital darkroom Photoshop; website and app design platform Xd; 3D video game modeller Substance; graphic design go-to Illustrator; and Aero, a tool for creating augmented reality experiences. These creative leaders had a cult status among the legions of designers at the convention and the upgrades and new features they unveiled were cheered by the crowd as if they were new singles.

I'm no one's idea of a tech whiz. Not even the free hoody I scored halfway through managed to help me fit in at this conference. We were surrounded by hordes of digital natives and I bet they could smell that I still use DVDs. But I was pretty happy, if I'm honest. This looked like a vibrant company with a loyal following and an eye for the future. A headline announcement at the conference was the delivery of Photoshop and Illustrator to iPad. This allows users to work

on the move and to design via live streaming. I think the global roll-out of 5G will be an important development in this regard, as it allows much greater amounts of information to be transferred at lightning speed. Adobe Sensei is another product that could do very well from ubiquitous 5G computing power. This program uses artificial intelligence and machine learning to automate all sorts of humdrum design tasks, calibrate how people navigate websites and even help with budgeting decisions. Imagine the possibilities of an artificial intelligence (AI) helper in a world with lightning fast computer power hanging in the air. Adobe seems to have positioned itself to make the most of the next technological waves, so it was worth feeling out of place for a couple of hours.

Yet 5G is a risk as well. If the technology is a flop, some of Adobe's investments could end up being for naught. And, lest we forget, the company could simply fail in execution. We were treated to one of those morbidly satisfying, cringe-tastic ironies that crop up oh so rarely outside of television. Like watching a multimillion-dollar footballer trip over himself, we got to see a Silicon Valley giant suffer from PowerPoint fail in front of 15,000 people. It really can happen to anyone, and it's a strong reminder that even the best can fail.

Adobe Max 2019 Conference — An expectant community

One of the major reasons we own Adobe in our portfolios is because we believe the digitisation of global commerce is nowhere near finished. There are plenty of businesses that are yet to be dragged kicking into the 21st century; they will need new-age websites with e-commerce tools embedded in them. In the past branding and product designers were thinking about physical problems, now most of the work is about making sure everything is polished on screens large and small. Companies will have to go further, too. In the hunt for sales, they will have to throw the digital world into the real one using augmented reality and other cutting edge technology. Or perhaps the other way round: video game design software Adobe Substance is increasingly being put to work by product and industrial designers.

It's an arms race for attention out there. And Adobe is supplying the weapons.

We left the Adobe conference and drove to visit the offices of fast-growing ticketing and music promotion company Live Nation in upmarket Beverley Hills.

I always think a reception is an interesting insight into a business's culture. This was like walking into a Shoreditch hipster's favourite café. Video screens, exposed brick walls and a cool barista serving mochas behind a bar. Everyone is dressed as if they were in an Abercrombie & Fitch commercial. Except us, of course.

The music business has changed considerably in the internet age. The industry's money fights in the 1980s and 1990s came to an abrupt end when file-sharing programs like Napster and its more strait-laced cousin iTunes showed up. The rivers of money from selling CDs at phenomenal mark-up dried up virtually overnight. There's still a lot of money to be made from music, but it's a war zone out there. Record companies are trying to keep their margins in a world where only a comparatively small trickle of royalties from streaming companies are on offer. They have to retain their relevance, too, in a world where a guy like Chance the Rapper can become an overnight sensation by making his own mixtape and releasing it for free online. How many other young kids with stars in their eyes have question marks in their brain about that record label exec with the desperate hustle?

But throughout all these ups, downs and struggles, one thing remains constant. Whether they listen to their favourite acts on eight-track,



Ticketing, hipster style

vinyl or internet radio, people have always crowded in to watch live gigs in droves. And to make ends meet, artists tend to indulge them by touring often. That's where the music promotors come in. We already own a ticketing firm in Germany called CTS Eventim, vet this American company is a different beast to that. The US firm makes most of its money from organising and running music tours, whereas CTS is focused solely on selling tickets. The key to the promotion is becoming the artists' best friend, ensuring they run their tours through you. But at the same time you have to make sure the shows and the price are well calibrated to bring in money for you (and the artists) and keep the fans sweet. Not always mutually inclusive! The most profitable events tend not to be those headline shows put on by top-tier stars. Instead the real money is in lesser-known or niche acts where the costs are lower and the cut of the door is higher. There's more to it than just selling tickets though. Promotors also get involved in selling band merchandise and make money on selling drinks and food at the gigs (they often own the venues – the company we met had more than 700 in the US alone). There are anti-trust issues, though, Having such a dominant position has led to accusations that the company is abusing its position. As the company continues to buy up smaller rivals, these concerns could attract regulators.

We headed back out into the Californian sunshine to be greeted by our black Cadillac 4x4. It's all a bit too much like Entourage. We shot south towards the city to see Mattel, one of the world's largest toy companies. The driver was clearly ex-military and checked his mirrors a smidge too much for my liking. When letting us out of the car near the airport, he stood bolt upright watching for threats. What sort of toy company was this ...?

The reception is a bit of a mausoleum for a 1980s/90s children's toys. Barbie, Thomas, Fisher Price, Hot Wheels, they're all there, faded and proud of vesterday. This company has been under tremendous pressure, with a revolving door of executives taking turns to hack away at the business like an 18th century surgeon.



There's a lot of strong intellectual property and brand locked up in Mattel – as there is in many ailing toy companies. The problem is trying to bring these gems to the surface and organise new business models without destroying what made them resonate with kids in the first place.

Mattel manufactures its own toys too, which doesn't give it much flexibility. It was adamant that it would continue down that path: I argued that it would make more sense to rid itself of the manufacturing arm and transform into an operation with few large fixed costs. I think there is more money to be made by using their brands in movies and games than in physical toys. The firm is trying, and has several films in the works with the aim of boosting demand for the toys themselves (think like the Lego movies). One of the first attempts was a botch-job though. It's going to be a tough up-hill climb for this business, especially given its squeezed cash flow.

Despite children leaving toys at an earlier age than in the past, the global toy market does grow at 4% to 5% each year, so there are definitely opportunities there. Mattel isn't for us though – for some time at least.

After the meeting we head back to LAX for our flight to San Francisco.



NOVDay 45San Francisco Downtown/Oakland

So the itinerary said a four-minute walk from our hotel for an 8.15am meeting with payments network Visa. Twenty minutes later we turned back knowing we had gone wrong. Visa's HQ was actually next door to our hotel. In our defence, it was a very understated office. And unlike the office of its rival Mastercard, which we visited back in 2018, there were no scooters flying around the corridors!

When we finally got into the meeting, the management team seemed to be underplaying the potential growth. There has been a lot of discussion lately about whether Visa and Mastercard (we own both) have already reached peak dominance. Several credible competitors have popped up offering alternatives to vour typical chip and pin and then there's cryptocurrency. And yet look closely enough and virtually all of the alternatives are using Visa or Mastercard's networks somewhere along the line. Meanwhile, the share of electronic payments continues to increase as cash becomes an anachronism. What vou're left with are companies that dominate a growing industry – just what we're after.

Contactless has been slow going in the US, but now it has been rolled out by 80 of the top 100 retailers. There were about 100 million contactless cards in the US at the beginning of 2019 and that's expected to triple by the end. This trip I bought my Starbucks with contactless – progress at last. Visa expects European-style penetration over the next two to three years in the US. That would be a meteoric rise from the less than 1% of US card transactions in 2019 estimated to be contactless. Globally, there is still roughly about \$17 trillion of cash transactions worldwide that are theoretically on the table for electronic payments companies to go for.

All this heady talk got us discussing whether cash may actually be abolished. Technically, it would seem perfectly likely. Yet, politically it's a different story. How would politicians be able to take shady donations and how would people make all those off-the-books transactions like paying the nanny or doing odd cash jobs for friends... Some say freedom is the ability to disobey on the edges — to make little white lies on immaterial amounts and issues. Dispensing with cash would have the overtone of an authoritarian state even as it simply tries to prevent unlawfulness. Ideas of a cashless society are a little far-fetched for me this side of 2100.

I would leave the death of cash dream to the crypto-enthusiasts and the tinfoil hat brigade, and focus instead on something arguably more compelling: Visa Direct. This is a peer-to-peer payment system for people to give and take cash instantly without having to share bank account details or write cheques. The technology also allows businesses to do the same. An embarrassing proportion of American commercial business is done using cheques that take days to clear. Visa Direct could finally consign that to history. This would save banks huge amounts of admin costs and means money is no longer suspended in digital purgatory where no one can use it. Visa makes extra revenue from clipping the ticket on more transactions.

Despite our optimism about Visa, we remain acutely aware that the risks of anti-trust action and aggressive regulation increase with the company's success. In today's climate of mistrust and conspiracy, a financial company making cash hand over fist tends to have an Acme target on its back.

We ducked southwest to see Donald Trump's favourite social media platform. Twitter's offices were most definitely ostentatious. And, weirdly, with a deep aesthetic connection with the end-times (the building is a city-block-sized depression-era furniture warehouse with a facade inspired by Mayan pyramids). It was not a good meeting. We got off to a great start by getting lost on the way to reception – I know what you're thinking but this time it was poor signposting not our shoddy directions! This was borne out by Twitter's policy of employing four people purely to guide you from the reception to the lifts. As we were passed from clipped greeting to clipped greeting I couldn't shake a sense of déjà vu casting me back years and years to when I visited Sony's Tokyo headquarters.

What became clear in the meeting was that Twitter's management were focused first and foremost on their product. Profit was a distant second. This makes sense when you're selling something: build the best and yell it from the rooftops, the profits should take care of themselves. But this company, while boosting profits noticeably, is still far from a sustainable generator of profits in an industry that is renowned for how fast leaders get scythed down. One surprising admission from the meeting: the business's platform is actually difficult to work with. Not what you want to



hear from a tech giant that is yet to turn 15. A sobering reminder that flinging stacks of cash at a problem doesn't always work. But sometimes it does! Amazon's Jeff Bezos knows all about burning cash in the pursuit of profit and world domination. We had some time to spare so dropped into one of the Amazon Go stores in the city. These automated stores have no checkouts, only a matrix of cameras and futurist tech that can determine who you are and what you take out of the store with you. The broker we are travelling with took two chocolate bars off the shelf, had a walk round, put one back and then departed. Checking his phone afterward Amazon had deducted the cost of one chocolate bar from his account

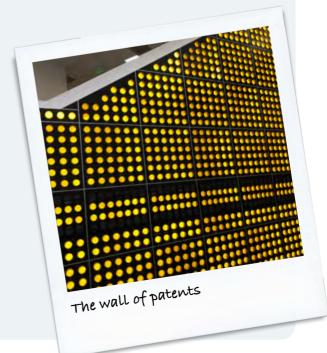
Test passed.

At least 10 fortunes have been spent in designing and executing this symphony of tech. About 25 of these stores are dotted around the US so far. vet I can't help feel like this is less a viable business and more a very expensive science experiment. A homage to technology or a fetishisation of R&D. Cool. ves: practical. no. They could never be completely unmanned because it would invite people to don their ski masks and clean the place out! How much more money will be sunk into Amazon Go and would it be better spent elsewhere? Indeed, is Amazon innovating too much? The company has built the most efficient vertically integrated shopping experience known to man. It knows months ahead of time what vou're likely to buy and its octopus-like network can have it on your doorstep the very same day. This has made it the first port of call for hundreds of millions of people. So what are the incremental benefits to your dominance by offering two-hour delivery – or within the hour? And at what cost. both in investment and in the obvious environmental inefficiency of such a service.

We have been a long-time holder of Amazon, keeping the faith through many turns, thin and thick. But recently we have begun to mull whether the company's strategy may be wobbling, or if its laser focus on efficiency has slipped from healthy restlessness to obsession. This remains but a small niggle in what is a phenomenal growth story, however. More than ever these days, you own Amazon for its cloud computing business Amazon Web Services. We caught up with the company a couple of days later in Seattle and had a deep dive into this part of the business. Amazon is aiming for reliability, a very good approach when you're delivering mission-critical services to businesses. It is also parachuting its sales force into its clients' IT teams, an astute move that helps make an already sticky relationship into something akin to concrete.

Speaking of which, our next stop was the concrete jungle of Oakland. The offices of chemicals manufacturer Clorox which makes scores of products, the best known of which are the eponymous brand of bleach, Kingsford charcoal and Burt's Bees lip balm. This company seems like a drab, grey operation, yet it's actually extremely innovative. Take charcoal: they engineer it so it gets to optimal barbecue temperature in 12 minutes. They could cut that to five minutes, but their research shows customers tend to have a beer after they've lit the coals. The charcoal would lose much of its value before the punter had even started grilling. A small thing, but a consumer business like Clorox is built on a fortress of small things. Clorox adds to the fortifications every day by spending more on its R&D than any of its peers. It uses digital platforms and simulation software to tinker with products, packaging, admin and supply chains to cut costs too.

When I got back to the office we bought this company because it knows what its strengths are and it plays to them every day. Its people and its patents are its most important assets. And both can run out on you. It makes sure it has a steady stream of new patents to replace the old by keeping its people happy, productive and curious. That way they are less likely to leave and take their expertise – and your secrets – to competitors.





Oh boy, Silicon Valley day! Now I don't know what I was expecting, hover boards, monorails, drones everywhere, but I actually found myself in a much bigger version of Reading.

First up, we were meeting a global real estate investment trust (REIT) called Equinix which specialises in building and running data centres. This is really cupboard-under-the-stairs stuff for one of the most exciting industries on the planet. Data centres and the cloud computing they support make our digital world possible. They are breath-taking feats of engineering, circuitry and hardware. But, at the end of the day, they are massive warehouses humming with blinking lights. This is big, boring business. Just the sort of thing we like.

Equinix provides the buildings and the power and then keeps the lights on for the networks and cloud providers who are their customers. All the gear that goes into the centres remains the property of the customer, which is helpful because it reduces the amount of cash that has to be put up for each new site and reduces some of the operational risks. Equinix is growing steadily, adding roughly 3%-4% revenue to existing sites and buying up rivals on the side. It is spread over about 25 markets around the world, but remains the largest player in 18 of them. Not bad positioning. They own just over half of their sites and have long-term leases over the rest. They plan to increase this to 65% because they see value in having greater control.

Reliability is key for data centres, as downtime is unacceptable to its customers. Remember this was the watchword for Amazon's cloud computing business too. For data centre operators like Equinix, that means securing power continuity is crucial. To add more complexity to the mix, customers are increasingly demanding renewable generation (particularly in Europe). An example of just how rapid this change is: four years ago about a third of Equinix's power came from clean energy, now it makes up 90% with an aim for 100% very soon. This is a fantastic achievement and great for the planet, yet relying heavily on such transient power sources does increase risks for a company that lives and dies by its ability to keep the lights on. If the sun isn't shining, the

water levels in the dam are low or the wind dies, it could be vulnerable to power price spikes or even black-outs.

Financially, Equinix has taken on quite a bit of debt — to be expected for what is essentially a property company. However, despite having debts three times the size of its annual cash flow, it has an investment grade credit rating. Keeping this rating — and the cheaper loan rates that come with it — will be a high priority. It also plans to slowly reduce its debt over the coming years, which would help boost its profits. Still, it's risky. A few bad decisions or unforeseen hurdles and a business with a finely tuned balance sheet can start slipping into debt spiral territory.

Overall, I thought this was a great business; well managed and proactive in meeting the demands of its customers. Expensive too! This is as quality businesses usually are. Definitely one for us to watch.

Welcome to EdTech

athbones.com

Electronic Arts – another company, another reception. I was becoming quite Freudian about all these entryways and waiting rooms. Like any good psychoanalyst, if you stare hard enough at something you can spot whatever it is your subconscious fancies. You start weighing décor quality versus wait time and wondering whether the ratio is a hint of a business's style over substance. And pondering whether a hi-tech iPad sign-in procedure at a low-tech firm is a sign of defensive self-consciousness by a company that feels out of place in a digital world (or whether Gary in IT is just a gadget nerd). One golden rule: always beware of a business with mirrors in its reception area.

Thankfully, Electronic Arts' (EA) reception was right out front and what you'd expect from a video game developer. Life-sized battle warriors, a merchandise store and games room. Ironically, the hi-tech iPad sign-in didn't work for me here (despite having owned shares in the company for years no less!). Does that say something about the company or more about me... With a bit of help from the frustrated receptionist, we were into the meeting. I think I need to state at this point that I have never played a computer game.

It has been a bumpy ride for EA's share price over the past few years. After flying in 2018, the share price has retrenched to a much lower multiple of earnings. We're still happy holders, however. We expected video game companies to be volatile, which is why we have spread our investments across a range of them to spread our risk. The video game sector has moved from being extremely hit driven with lumpy earnings to hit factories with smoother. franchised releases and more predictable earnings. But they are not and never will be as smooth as a consumer goods company, which is where many people seemed to think they were going. The way we think about them is they are like film producers, except they are putting together interactive films. These are mind-bogglingly complex to design and create, and - like with



films – you can't be certain that the punters will like the finished result, regardless of how much money you threw at it!

Creative businesses like this will have ups and downs, but we think video games are in the right iet stream for where the world is going. Ever more of our lives are spent in the digital realm and video game companies have been in the business of building and beautifying this realm for years upon years. It's no wonder that the blockbuster games now make much more money than blockbuster films. The dynamics of gaming are very interesting. A typical gamer spends 70% of their time playing one franchise, so it seems that they are very loyal. It also helps entrench incumbent developers like EA against upstart rivals. Sometimes that can be breached by a flash-in-the-pan Fortnite craze, yet take a look at the share price of Epic Games, its developer: it absolutely flew for a few months of 2019 before sinking back to roughly where it started, despite launching a sequel. I wouldn't underestimate the value of tried and true franchises that EA has, like EA Sports (FIFA, Madden, etc.), Star Wars, Battlefield and The Sims.

Meanwhile, the distribution model for these companies is changing rapidly. For decades, game cartridges and discs have been bought in stores (and then online) and you had to install them or run them on your machine. Now, most PC computer games are downloaded straight to your machine with no distribution needed beyond licencing agreements and a tonne of internet bandwidth. Console game distribution, like Playstation and Xbox, is moving in the same direction. Doing this has many benefits (for the games companies): it eliminates the cost of producing millions of discs (along with the case artwork), reduces carbon footprints, makes it easier to iron out bugs and be more organic in how games are developed, and lends itself perfectly to that nirvana of investment: subscription models. It also keeps game prices (and therefore margins) high, because if you don't have discs people can't sell them to second-hand stores where gamers can pick them up for a fraction of the ticket price. If people know they can wait a month and buy a game for half price they will. Imagine the uplift in revenues if that trade was wiped out.

But all of this change could rankle with gamers. Higher-priced games would obviously be a turn-off and the need to download gargantuan game files threatens to ostracise those without lightning-fast internet. There are plans in the works to use 5G and other tech to stream games rather than download, which would replace long wait times with instant access and allow people to lean on the ultra-fast computing power of gaming companies to run the games. While that would alleviate some of the burden on gamers, it still requires ultra-fast broadband and comes with huge technical problems. This is a decade-long journey, so only for the patient.

Our next stop may as well be on a different pole to video games: study tools provider Chegg. This company offers secondary school and university students everything from video-link tutorage and flashcards to textbooks and extra homework for the extra keen. It bills itself as a student network that helps you get more out of the hours spent studying. It's a monthly subscription though, so earnings tend to fluctuate around term time. What makes Chegg a bit different to your typical education tools supplier is that it sells directly to the students, not through the schools and universities. This gives it much more flexibility in what it can offer – and how (spoiler alert: typically through mobiles). I think this gives them an edge. If you're at an American university then Chegg is as ubiquitous as Nike. The company has a uni feel with free food in the canteens and a putting green somewhere in the back. Not like your university? What do I know, I didn't go.

These days virtually everyone goes to some form of tertiary education, which is good in some ways, bad in others. The cost of education has ballooned in the past few decades and with it the debts that kids are dragging away with their diplomas. Youngsters entering the workforce are smarter than ever before, but they are discovering that the labour market is an arms race. If most people have degrees, your degree isn't worth as much as it was. There could be a backlash coming where school leavers opt out and look for a different – more sustainable – path to a vocation. Chegg thinks it can play both angles of this. Its main business helps students get better results so they get an edge on all the other CVs. Meanwhile, they have bought up a skills-based business that helps teach in-demand tech skills like coding and data science. The average customer of this vocational program for 21st century skills is 30 years old, without a degree and working.

The prospects for this company look great. The company has only just started to expand outside the US, and it plans to do so slowly into English-speaking nations. Anglo-Saxon education systems all seem to share the same flaws: expensive, deteriorating in quality and ever less likely to land their leavers a plum job. One potential risk for this company: better politicians.



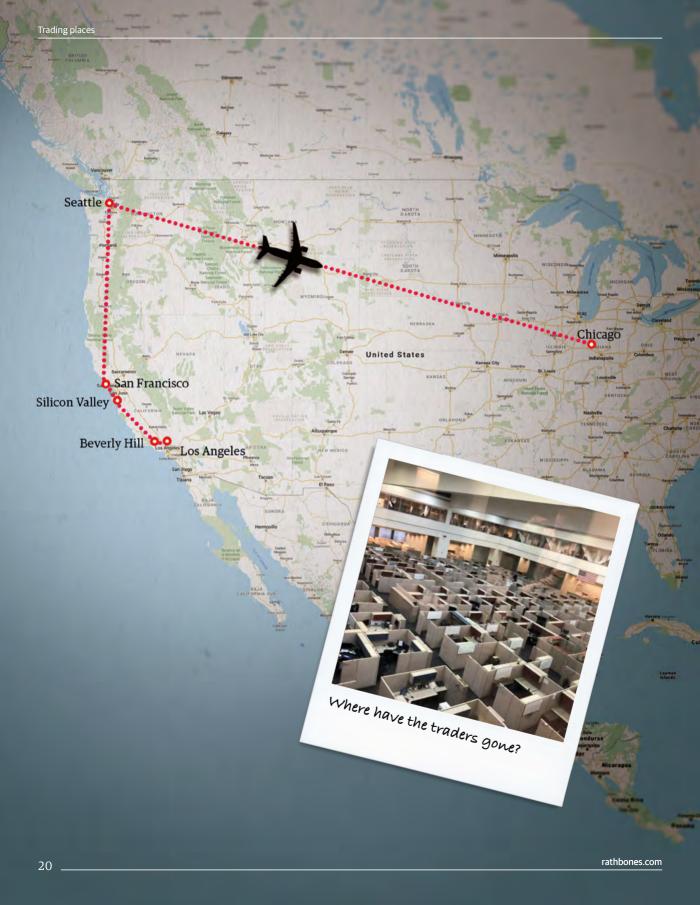
NOVDay 67Seattle

It's not every day that you get to fly in to meet an airline business on that very same airline. After a busy day shooting round Seattle meeting truck manufacturer Paccar, Amazon and telco T-Mobile (look out for our blogs on ideas these meetings gave us) we headed back to the airport for our appointment with Alaska Airlines.

This company's HQ is, fittingly, right by Seattle-Tacoma Airport. It's a slightly jarring mix of the old and the new. Sort of like if Biggles' RAF Spitfire squadron had been privatised in the mid-1950s with the stipulation that the officers' mess remain untouched in perpetuity. Head through some doors and all of a sudden you're in a 1960s Bond movie set with a brightly coloured pool-stair combo and Dr No hiding behind a dwarf palm tree. Supermarine meets aquamarine.

There is a reason for this strange mix. Alaska is one of only two American airlines to survive deregulation, so it is a veritable old codger in the industry. It carries a lot of pride about it too, which isn't a bad thing. Several years ago it bought up a new-age disrupter to increase its reach and jazz itself up a bit. It's been a long journey to fuse the two parts, and given the HQ it seems that's still a work in progress. Profit margins have halved to nearer 10% since the deal was struck. They are targeting a return to 13% to 15% now that integration is almost complete. Thankfully, our experience on the flight in gave us just the right impression. Alaska is trying to differentiate itself with superior customer service because it believes people will pay a reasonable premium for it. These aren't just empty words and nothing gestures either. The airline is in-sourcing as much as possible, most noticeably the handling of hold luggage. If you don't get your checked luggage within 20 minutes of arriving they give you some of your money back. Rather than go head-to-head with bargain bin flights, this airline allocates a small proportion of its seats to a newly created ultra-cheap-and-no-frills class. This way they can retain the price premium on their standard economy section, the bread and butter of flying.

We used this company three times actually, and they were consistently great: nice planes, on time, courteous staff, a very generous mileagebased loyalty scheme and a quality app. You can see how people could easily be converted from their ultra-cheap seats to an upgraded service. It was spooky. Given the state of European airlines I'm not used to this at all. It seems like the airline has managed to retain the best parts of the old-guard carrier and the plucky challenger. Except for the interior design choices that is.





We arrived at O'Hare airport at midnight (although our day was extended two hours due to the new time zone). Getting to the hotel about 1am, an 8 o'clock meeting did not seem so smart.

After a groggy morning meeting that I won't bore you with, we headed off to the world of derivatives. The CME Group is an agglomeration of exchanges that host the trading of everything from crops and metals to weather and financial market options and futures. The group runs many varied markets, but they all offer 'synthetic' ways for traders and producers to either hedge their risks or speculate on prices. These are huge, global markets and after years of swallowing rivals, CME has the scale to bring efficiencies and the very best technology to bear. This company ticks many of our boxes: well-run, dominates its markets and reinvests in its business to ensure its customers are happy and its niche is secure.

The group has a worldwide footprint and has delegated sales strategy to well-resourced local teams. I always prefer this approach as I'm a big believer that the man on the ground knows more about what his customers want than some central planner at HQ. Boil it down and it's communism versus capitalism – we've already seen which camp won that battle!

enezuela

CME – and other exchanges, one of which we also took the time to see – are actually benefiting from the long retreat of investment banks from doing over-the-counter deals. As with many quasi-monopolistic utilities, greater regulation is actually a boon. Banks' reluctance to do as much of these deals pushes the price of such deals through the roof and sends customers towards the exchanges. Many banks are now simply agents for their customers, clipping the ticket on orders to CME and others. Effectively, the competitors have become customers.

The beauty of a business like CME is that it doesn't put its own capital at risk. It's not the bookie, it only matches buyers and sellers. They are paid mostly by transactions with about 20% of revenue from subscription services. In fact CME describes itself as a technology company. and with a 68% operating margin, it certainly looks like one. So, is it cyclical? This is difficult to gauge as many of its products are used for hedging purposes. The company itself thinks that extremely stressed markets would be bad for them as it would drive down all activity (especially as volatility tends to make options much more expensive). We think it should do well (barring any unexpected hiccups, of course) as long as there isn't a severe and protracted downturn. When I returned to the UK we added the company to our portfolios.

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Frozen orange juice futures

As we made our way back to O'Hare for our journey home, David and I bantered about the stark changes in the world since we were growing up. Back when I was in my teens, Eddie Murphy and Dan Aykroyd were outsmarting a couple of rich old crooks by playing the open-outcry market in frozen orange juice futures. Even when David was old enough to get on board with the film in the early '90s, commodity markets were still operated in much the same way. It all seemed so cut and thrust and lively. Now here we were sitting in a cab, pulling away from the very same markets that have exploded to mind-boggling size yet have become as quiet as a library.

The internet and the power of computing has changed so much about our world in such a short time that it can be a bit nauseating if you dwell on it for too long. But much of these changes are simply matters of degree and efficiency. There's more trading happening every second today than when the exchanges were fit to bursting. You just can't see it. You can send messages to anyone in the world instantly using a bit of metal in your pocket. That's not so new - you could send telegrams back in the 1800s – but it's cheaper and easier now. Adobe is helping designers in much the same way that the 140-odd-year-old Linotype machines did. We met a ticket-seller, which wouldn't be too out of place in the 19th century either. Or perhaps Visa, which helps people pay their bills - revolutionary.

None of these things are particularly groundbreaking in their aims. The spark of genius is in how new technologies have been thought up, bent and moulded to make these typical human endeavours faster, more exciting, more efficient and just so damn cool. We met 19 companies across four cities in five days. Analogue approach to díary entries

The best companies we saw out here are those making it simpler and quicker to do the jobs we need to do so we can spend more time on the enjoyable stuff. In EA's case, it peddles the enjoyable stuff explicitly. For me, this is where the magic is for investors. Economics and investment are always spoken about in terms of finite resources. Well, the most finite thing of all is our time. Any product or service that can give us more of that, as people and employees, is onto a winner in my book.

All companies use technology. But we try to search out those companies that are using it the very best way. The ones that make it impossible for their customers to say no. They help you learn what you need to know faster so you're not wasting an extra week of your life looking at textbooks. They don't keep you standing there for an hour watching luggage on a carousel. They allow you to buy so many more frozen orange juice futures than Dan Aykroyd and Eddie Murphy managed back in the early '80s in half the time.

David Coombs

Head of Multi-Asset Investments November 2019

Get in touch

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Me looking very British at the Adobe Max conference

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T3-RUTM-DC-03-20



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