Rathbones
Review
Summer 2018

Liquid assets
The threats and opportunities of water scarcity

Novelty value
Understanding innovation adoption

The future of banking
The impact of technology

Brut strength
Concrete’s second coming

Rathbones
Look forward
Contents — Summer 2018

4 Liquid assets
Meeting the challenges of water scarcity

9 Novelty value
From bell curve to shark fin

12 Could UK equities spring forth?
After the long, cold winter

14 Parenting in a digital age
Guiding youngsters in the online era

18 Saving the planet from plastic
Throwaway society’s toxic legacy

22 University challenged
Degrees, debts and decisions

25 Why stewardship matters
The power of active share ownership

28 The future of banking
High Street versus high-tech

32 Horatio’s Garden
A remarkable teenager’s lasting gift

34 Brut strength
Re-evaluating architecture’s most cutting edges

38 A new era for the Royal Academy
The RA transformed

Cover images: iStock, lovethephoto/Alamy, Guy Corbishley/Alamy, Iconic Cornwall/Alamy, Phil Noble/Reuters, Joanne Underhill/Alamy
The drama that unfolded in drought-ravaged Cape Town during the first months of 2018 focused worldwide attention on one of the biggest challenges facing humanity today: water scarcity. Three years ago, at the World Economic Forum in Davos, this issue was identified as the most pressing social and economic threat of the next decade. Now, in light of the scenes witnessed in South Africa’s legislative capital, there is a growing realisation that we all urgently need to rethink how we use our planet’s principal source of life.

As we explain in this edition’s lead article, the situation is by no means hopeless. Scientists and entrepreneurs around the globe are working on new ways of tackling the problem — and investors, too, are playing their part. As we also discuss, however, technology and finance alone are unlikely to suffice: we need to change our behaviour as well.

Much the same might be said in relation to the increasingly devastating pollution caused by discarded plastics. We explore how innovation and novel thinking are being used to combat a worldwide blight that grew out of the once-idealistic concept of a “throwaway society”.

Several other articles touch on the broader notion of progress and transformation — as well as the challenges they bring. We discuss the nuances of innovation adoption, the digital disruption of the banking industry and the art of parenting in an age when youngsters spend so much of their time online.

Elsewhere we cover topics as diverse as university fees, the Royal Academy and corporate stewardship. We also offer two very different looks at the origins and impacts of our day-to-day surroundings — from the therapeutic serenity of the Horatio’s Garden project to the controversial but newly cherished architecture of the brutalist school.

As ever, I hope you enjoy all the articles — and please remember that we appreciate your feedback.
Liquid assets

It seems incredible that a modern metropolis could run out of water, yet this is the threat that major cities in developed and developing nations all around the world are facing. With the balance between demand and supply becoming increasingly fragile, we examine the challenges and implications.

Christopher Bullock, Investment Director, Rathbone Greenbank
Earlier this year, when much of the UK was hit by a spell of severe weather dubbed the Beast from the East, many Londoners briefly experienced life in a “water-stressed” city. Freezing temperatures prompted a spate of burst and leaking pipes, leaving some householders and businesses to rely on water stations for more than a week. At present London draws 80% of its water from the River Thames and the River Lea. Current levels of average annual rainfall suggest this is no longer a sustainable approach. The Greater London Authority has warned of supply difficulties by 2025 and “serious shortages” by 2040.

Four years ago, following a study by the US-based Nature Conservancy, London ranked 15th in a list of “water-stressed” cities worldwide. Despite being more readily associated with supreme efficiency, Tokyo was first. Los Angeles was another developed-nation metropolis that featured high on the list.

The situation in emerging economies is generally even more acute. The main reservoir in São Paulo, Brazil, fell to less than 4% of capacity in 2015. Both India and China are victims of pollution on a gigantic scale, with a recent survey of Bangalore’s lakes declaring 85% of their water fit only for irrigation or industrial cooling and none at all suitable for drinking. In 2014 it was estimated that more than 20 million inhabitants of Beijing each had access to only 145 cubic metres of water a year: the World Bank officially defines anything less than a thousand cubic metres as evidence of “water scarcity”.

“In the shadow of Table Mountain, the long-dreaded spectre of resource scarcity has become a terrifying reality.”

Although crisis is not inevitable, there can be no doubt that this is a serious global issue. “In the developed world it is a problem of replacement, a problem of expansion and a problem of updating,” says Professor Asit Biswas, a former member of the World Commission on Water. “In the developing world it is a problem of installing new sewage treatment works and water supply systems.”

Greg Pillay is the head of the Disaster Management Centre in a sprawling metropolis that is home to almost four million people. Once celebrated as the most attractive tourist destination in the world, his city is teetering on the brink of meltdown. He is preparing to confront sanitation failures and disease outbreaks. He says he is ready for “anarchy”. What he fears most of all is what has come to be known as Day Zero.

It sounds like the plot of a creaky sci-fi film from the early 1970s, but this is Cape Town, early 2018, with a crippling water shortage poised to bring South Africa’s legislative capital to its knees. In the shadow of Table Mountain, the long-dreaded spectre of resource scarcity has become a terrifying reality. “In my 40 years in emergency services,” says Pillay, “this is the biggest crisis.”

Interviewed in February this year for a British newspaper article, Pillay explains what Day Zero means. The term is used to denote the point at which Cape Town’s six-reservoir system falls to just 13.5% of capacity – at which juncture piped supply will be judged ineffectual and teams of engineers will be dispatched to shut off the valves to around a million homes. The largest reservoir, Theewaterskloof Dam, has already mostly evaporated. It is a victim of a three-year drought and a climate whose pace of change has outstripped technological advances in mitigation measures. One onlooker remarks that the last remaining puddle is “barely wide enough to skim a stone across”.

Elsewhere, supermarkets are rationing bottled water. Many hotels have removed the plugs from bathtubs to force guests to shower rather than bathe. Water tanks, pool covers and dehumidifiers — the last conveniently repackaged as “water from air” generators — have long since sold out. Anyone wanting a borehole drilled must join a year-long waiting list. Strict restrictions on water usage have been put in place, with online consumption maps supposedly maintaining discipline by shaming those who exceed the limits.

It makes for a scene that many experts expect to be replicated in cities around the globe. The emerging consensus is that if we do not re-evaluate how we use water — that is, if we continue to waste our planet’s principal source of life — the Cape Town experience could be repeated virtually anywhere.

In 2010 the United Nations classified access to water as a human right. Five years later, at the World Economic Forum (WEF)
in Davos, water crises were identified as the most urgent social and economic threat of the next decade – ahead of wars, epidemics and weapons of mass destruction.

Tellingly, many of the other perils highlighted in the WEF’s Global Risks 2015 report were inextricably linked with water’s use and management. They included extreme weather events, the spread of infectious diseases, the breakdown of governance and the inadequacy of climate-change adaptation – each a crucial component of Cape Town’s plight in 2018. Carl Ganter, a member of the WEF’s Global Agenda Council on Water, summed up the scale of the danger when he observed: “Water connects – it doesn’t separate. What manifests itself as a regional or local crisis quickly becomes a global problem.”

Wherever one looks, the prospective price of dealing with water scarcity is huge. Professor Biswas has described policies for managing water in India, the most populous country on Earth, as “unsustainable”. In China, where more than 300 million people are moving from rural to industrial areas, the existing infrastructure simply cannot cope. Even the US has suffered for adopting an “out of sight, out of mind” philosophy; a wave of poisonings in Flint, Michigan, four years ago was traced to lead contamination in an underground supply system that was both ageing and investment-starved.

Water industry expert Simon Gottelier is lead manager of the Pictet Water Fund, a global portfolio of companies, many of which focus on recycling water, reducing waste or monitoring and metering. “The US has been underinvesting in its water infrastructure for 50 to 100 years,” he says. “It needs to spend between $100 billion and $150 billion a year to repair and upgrade it. Globally, the figure is $1 trillion. We won’t reach that target, but this is an issue that is rising to the top of the political agenda everywhere. There is a little-understood correlation between water availability and a country’s ability to grow its GDP. Underinvestment and changing weather patterns caused by climate change mean this is a problem that has to be tackled.”

Many researchers and entrepreneurs believe atmospheric condensers — extracting water from air — will be on the front line of the battle to stave off global water scarcity. Often running on solar or wind power, the most sophisticated systems to date are capable of producing several thousand litres a day for just over a penny a litre. A related technology is the “fog collector”, a giant mesh used to harvest cloud droplets from the mists that swirl around the mountainous regions of developing nations such as Chile, Ecuador and Peru.

Just south of Tel Aviv, Israel, stands the Sorek desalination plant. Since October 2013 it has been sucking saltwater from the ocean a mile away and turning it into useable water; it now produces around 650 million cubic metres’ worth a year.

Seawater accounts for 97% of our available water resources, which is why desalination seems an obvious solution. Yet critics say current technology is expensive and uses so much energy that it exacerbates the climate crisis.

Stream of consciousness: water consumption

In early 2018 Cape Town residents were urged to use no more than 50 litres of water each per day. How quickly might a UK household exhaust this allocation?

Source: Anglian Water
problems that have led to our water shortage. Scientists are now attempting to decipher the biophysical characteristics and processes that enable certain species of fish and mangrove to desalinate themselves naturally.

Until they succeed, says Gottellier, desalination will be only part of the solution. He is a supporter of better water management. “You can increase the supply or you can use what you have more efficiently,” he says. “We invest in companies that are working on both ends of the problem.

“It can be quite simple, like reducing the amount of water consumed per toilet flush or the efficiency of a shower head. And it can be sophisticated. Sensus, a US company, is developing ‘smart water’ capabilities to monitor water flow and identify and locate leaks quickly. It has been estimated that American utilities lose $9.6 billion each year from leaks.”

It is vital to appreciate, though, that money and technology alone are unlikely to suffice. We also need to change our behaviour. Total water use has increased nine times since 1900 and is set to rise further. Can we reverse the trend of wastefulness?

Agricultural irrigation is typically cited as one of the most unconscionable wastes of all. Much of the world’s farming still relies on what is known as flood irrigation, whereby fields are drenched and the excess is left to trickle off into nearby streams and rivers — generating not only waste but pollution. In tandem, many economies raise thirsty crops that are ill suited to the local climate. Aquifers — underground layers of water-bearing rock — are literally being sucked dry by the remorseless pumping of groundwater. Such practices cannot be sustained over the longer term.

Meanwhile, on an individual level, who among us can honestly claim to give serious thought to the amount of water we use? Earlier this year, when Day Zero was thought to be around 10 weeks away, residents in Cape Town were urged to use no more than 50 litres a day. It has been calculated that watering a garden for 15 minutes uses up to 250 litres of water; even washing dishes in a sink uses nearly 10 litres.

The reassuring news is that there are water-challenged areas of the world where, through a combination of better management, prudent water use and state-of-the-art technology, the problem is being addressed. Gottellier, who sees an “immense” investment opportunity in meeting the challenge, offers the example of Orange County, just outside Los Angeles, which is now home to one of the world’s biggest and most advanced water treatment plants.

The plant takes waste water and uses a series of processes — including microfiltration, reverse osmosis and ultra-violet disinfection — to make it usable again. The procedure has been so successful that a depleted aquifer has even been replenished. In essence, it is a case of turning sewage into drinking water.

It might not sound palatable. But it shows what is possible.

“Going with the flow: water use in production

Modern industries require large amounts of water

<table>
<thead>
<tr>
<th>Item</th>
<th>Water Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>One newspaper</td>
<td>10 litres</td>
</tr>
<tr>
<td>One slice of white bread</td>
<td>40 litres</td>
</tr>
<tr>
<td>One pint of milk</td>
<td>600 litres</td>
</tr>
<tr>
<td>One burger</td>
<td>2,400 litres</td>
</tr>
<tr>
<td>One cotton shirt</td>
<td>2,700 litres</td>
</tr>
<tr>
<td>One kilogram of cheese</td>
<td>5,000 litres</td>
</tr>
</tbody>
</table>

Source: Anglian Water
Novelty value

The basic model for charting the adoption of new technologies was first used to track farmers’ purchases of hybrid seed corn. Today novel ideas might rise, fall and die in considerably less time than it takes to cultivate a single harvest. Just how fast has the innovation cycle become?

James Kyle, Investment Director, Rathbones
In the late 1950s, three decades before the advent of Microsoft’s PowerPoint, two academics travelled the US with what was known as a flannelgraph presentation — a storytelling device consisting of an easel, a board and an array of adhesive shapes in the style of Fuzzy Felt. Given the simplicity of their equipment, it may now appear ironic that their task at every stop on their journey was to deliver a state-of-the-art talk about the adoption of innovations.

The pair, Joe Bohlen and George Beal, were researchers at Iowa State University. Their research was driven by the fast-changing face of post-war agriculture and the nascent need for the farming community to accept and integrate new ideas. They were experts in what they called “the diffusion process”.

Building on their work, Everett Rogers, a sociologist at Ohio State University, later formalised the classic bell-curve distribution of “innovators”, “early adopters”, “early majority”, “late majority” and “laggards”. Outlined in his seminal 1962 text, Diffusion of Innovations, this served as the undisputed model for the adoption of new technologies for more than half a century.

Yet today the pace of transformation is so frantic that most of us have already witnessed the introduction and obsolescence of numerous innovations.

“Today the pace of transformation is so frantic that most of us have already witnessed the introduction and obsolescence of numerous innovations.”

Building on work by Rogers, diffusion through the ages

Traditional versus shark fin curve

To appreciate the extraordinary swiftness with which innovations now not only emerge but are adopted — and to understand why the bell curve might no longer be fit for purpose — we first need a basis for comparison. Since we are currently in the midst of what is commonly referred to as Industrial Revolution 4.0, it seems sensible to refer to the industrial revolutions of the past.

During the original industrial revolution, which occurred in Britain during the second half of the 18th century, innovation was not an especially scientific affair. It was more a matter of trial and error and relied on the efforts of individual craftsmen, many of whom guarded their discoveries jealously. In addition, the world was globalised only in so far as the ambitions of specific empires permitted.

In light of these and other constraints, adoption was at best gradual and at worst glacial. The spinning jenny, arguably the single most significant invention of the period, provides a telling example: created in 1764, produced in secret for several years and not patented until 1770, it was still finding new users in the early 1800s before its successor, the spinning mule, became dominant in around 1810.

The second industrial revolution, stretching from around 1870 to the start of the First World War, saw the likes of the US and Germany take the lead in innovation. These countries were able to move to the forefront for various reasons, including the contributions of their universities, the enhancement and organisation of research and development and the emergence of powerful corporations.

In large part thanks to the expansion of rail and telegraph networks, people and ideas enjoyed unprecedented freedom of movement. Even so, the speed at which new technologies were adopted was still far removed from what we know today. Alexander Graham Bell invented the telephone in 1876, but it was not until the early 1900s that its use began to extend across and between the US’s major cities.

Scholars are still quarrelling over the timeframe of the third industrial revolution. Some say it commenced immediately after the Second World War and encompassed the advent of information technology, computing and biotechnology; others say it began more recently and should be defined by the internet’s journey to ubiquity. Regardless, it seems safe to say that it was characterised by new industries and soaring levels of globalisation, interconnectedness and technological disruption.
The growth of Google dramatically illustrates the rate and reach of diffusion during this epoch. In late 1998, shortly after launch, what would soon become the world’s most popular search engine handled around 10,000 queries a day; within a year the figure had ballooned to 3.5 million; by mid-2000 the daily number of searches had topped 18 million; and by 2004, when Google announced its IPO, more than 200 million users around the planet were Googling every day.

Saturation point is achieved almost at a stroke, with interest subsequently diminishing almost as quickly as it once flourished. Thus the “shark fin” was born.

Writing in Harvard Business Review earlier this year, Downes and Nunes cited Pokémon Go as a classic instance of this precipitous trajectory. Exploding on to the market in July 2016, the multi-player smartphone game was downloaded by 7.5 million people in the week after its release; the shark fin hit its peak within a fortnight, with 28.5 million users playing for an average of more than an hour a day; and the fade set in after just 12 weeks, leading to 15 million players abandoning the game in the space of a month. This is the adoption cycle in super-compressed form — right down to the fact that Pokémon Go’s co-producer, Nintendo, had no “second act” up its sleeve and lost billions of pounds.

This last twist to the tale has always been a threat. Only constant innovation can ensure staying ahead of the curve. Britain’s own lack of a “second act” may help to explain why the country led the first industrial revolution but lagged thereafter. As Marks & Spencer discovered two years ago after admitting its supply chain had become seriously outmoded, resting on one’s laurels is often the most perilous course of all. The big difference now is that the dangers of inertia might be exposed within weeks — and maybe even days — rather than within years or decades.

Such a pattern of breakneck ascent and decline might not yet be customary, but it has definitely arrived — and it is a long way from the bucolic image of Bohlen, Beal, farmers and Fuzzy Felt. As technology continues to hurtle forwards in ever-greater leaps and bounds, everything suggests that the innovation cycle as we once knew it is destined to become increasingly unrecognisable.

The benefits of a blank canvas

One of the quirks of innovation adoption today is that countries broadly perceived to be at or near the cutting edge of technology — that is, developed economies — are not necessarily the quickest to embrace a novel idea. This is usually because such nations find themselves held back by legacy issues.

India’s recent shift towards smartphone technology provides a striking example. Driven by controversial demonetisation polices and the government’s Digital India Initiative, India now represents the world’s fastest-growing market for mobile phone payments. According to a Credit Suisse analysis, the market could increase five-fold during the next half-decade — from around $200 billion now to around $1 trillion in 2023.

Earlier this year it was calculated that 30% of all smartphone users in India would use their phones to pay for goods or services at least once a month in 2018. By contrast, a study published in 2017 suggested that less than 1% of Britons would use mobile payments in everyday situations.

Why? One explanation is that in the UK we are still too attached to contactless cards — an earlier innovation that proved a comparative flop in India.

“...and maybe even days — rather than within years or decades.”

Until a few years ago India was one of the most cash-centric economies in the world. Now it has shifted to a cashless economy more rapidly than many developed nations.
Could UK equities spring forth?

After a long, cold winter for UK stocks, spring could be just around the corner.

Sanjiv Tumkur, Head of Equity Research, Rathbones

The FTSE All-Share has underperformed other major developed markets so far in 2018, extending a pattern that has been in place since the June 2016 vote to leave the EU. In fact, the UK stock market has returned much less than other global equities going back to 2011.

This long winter for British stocks was due to a number of factors: the UK’s high exposure to sectors such as banking, oil and mining which have experienced periods of challenging trading; a relative lack of exposure to higher-growth areas such as technology; and more recently concerns about the potential for Brexit to impact the UK economy.

While things like a bad Brexit or a global downturn driven by rumbles of a trade war between the US and China might threaten to derail UK equities, we believe they are an attractive investment on a number of metrics. As we write, prices are implying that investors expect a particularly negative Brexit scenario.

Earlier this year the Bank of England changed its forecast for interest-rate changes, and now expects to start hiking interest rates faster and higher than before. This would be to combat stubbornly high inflation, while growth in the economy is also decelerating less sharply than previously expected. Still, it is true that the UK economy has been lagging the rest of its peers in the major developed economies – it grew at 1.7% in 2017, compared to a 2.9% pace in the US and 2.7% in the eurozone, the perennial laggard of the past. More forward-looking indicators of growth, like purchasing managers’ indices of business activity, have also been suggesting a slower pace of growth in the UK compared to the US and Europe.

There is little doubt that Brexit uncertainty is having a negative impact on UK growth, making businesses more cautious about investing and expanding in the UK. But we think UK shares could offer fundamental value and an opportunity in all but the most pessimistic of deal outcomes.

On the day of the EU referendum, 23 June 2016, the closing price of the FTSE 100 was 15.8 times the expected earnings for the index over the next year (a ‘forward price/earnings’ or ‘PE’ of 15.8), compared with the S&P 500’s forward PE of 16.8. Since then, despite good growth in the FTSE 100’s earnings, its forward PE has fallen to 13.4. The S&P 500’s forward PE has meanwhile been fairly steady at 16.2, especially as technology giants like Amazon have prospered. This has widened the discount that UK shares trade on to 17%.

“We think UK shares could offer fundamental value and an opportunity in all but the most pessimistic of deal outcomes.”
Another good valuation measure is what is called projected free cash flow yield, which takes the amount of cash flow a business produces for its shareholders and divides it by the value of its shares. On this measure, the FTSE 100 has also become more attractive – rising from 4.8% at the time of the referendum to 6.5% today. The S&P 500’s free cash flow yield was 5.1% at the time of the referendum, making it more alluring on this measure. It was at 5.5% at the time of writing, which is almost a fifth lower than the FTSE 100.

Even if we adjust for the S&P 500’s skew towards faster-growth and higher-valued technology shares, the FTSE 100 still looks relatively cheap. And this is true across sectors: in personal care and household goods, UK-listed Unilever was trading on a forward PE of 18.7 versus US peer Colgate-Palmolive on 22.2, and British energy giant Royal Dutch Shell was on 13.7 compared with 16.5 for American rival ExxonMobil.

The UK was already less expensive on some measures prior to the referendum, and has now become even cheaper to reflect uncertainty over Brexit. Overseas investors may also be put off by the prospect of a hard-left Labour UK government led by Jeremy Corbyn.

If the UK exits the EU with no free-trade deal and there is a hit to trade and to economic growth overall, we think sterling would fall significantly. The FTSE 100 derives approximately 76% of its revenue (according to estimates by FTSE Russell) from outside the UK, so depreciation of sterling would boost the value of these foreign earnings when they are converted to sterling. This would, therefore, push up their sterling share prices.

The FTSE 100 looks cheap – but it is only attractive if we can be fairly sure its long-term investment returns will be good. Our research suggests that the pound is significantly undervalued versus other currencies, and we expect that over the long term it will normalise, which should boost long-term returns to global investors from sterling-denominated equities – although in the shorter term the currency could fall significantly, as we discussed above. So it is probably wise for any investors looking to buy UK stocks to ensure they are buying for the better part of a decade, rather than as a short-term punt.

The FTSE 100 should also deliver decent long-term earnings growth. Significant weightings to energy, mining and consumer staples give it the best exposure among Western markets to higher-growth regions of the world, chiefly Asian emerging markets.

Even though the domestic economic outlook is currently uncertain, we continue to see UK equities, and in particular the more outward-looking FTSE 100 index, as a reasonably attractive investment.

We think the remainder of 2018 will be as bumpy as the past few months. But we are optimistic about the state of the world economy and therefore the growth prospects for quality UK firms with an international revenue base. In all but the worst-case scenario for Brexit. Solid, reliable growth should attract investors in the long run, regardless of Brexit outcomes.
Parenting in a digital age

There is mounting evidence of the risks facing young people who spend an ever-increasing part of their lives online. The school curriculum has been updated to include guidance on acting safely online, and the government is reviewing ways to control how much time children spend on social media platforms. But what can parents do to reduce the dangers of a digital world? Two experts offer their insights and advice.

**Penny Harris, Investment Director, Rathbones**

It may seem ironic that mother-of-four Rachel Vecht spends much of her time teaching parents how to handle the problems of social media and the internet through online webinars.

But Vecht has never denied the benefits of the internet, and nor does she prevent her own children from engaging with friends through social media. She is serious, however, about the need for parents to do more to protect children from the temptations and dangers of the online world.

Vecht was a primary school teacher for seven years. Seventeen years ago, when her first child arrived, she started working as a parent educator – teaching parenting skills to adults.

Father-of-four Dr Aric Sigman is a psychologist, biologist and award-winning author who specialises in child health education. He is a member of the all-party Parliamentary Group on a Fit and Healthy Childhood.

Like Vecht, he is a strong advocate of the argument that good parenting can help children to journey safely through the travails of adolescence in a digital world. His big concern is how much time children spend in front of a screen.

**Screen time**

**Vecht:** Although I am reluctant to be very prescriptive to individual families, I would say that no child should be allowed to use a screen without some kind of boundaries being established. One potential solution could be to involve the children themselves in drawing up clear rules. You need some sort of agreement to cover things like how much time they can spend on screens, in what circumstances and what sites or apps they are allowed to use. Regardless of the approach, we definitely have to think very seriously about how much our children are using screens.

**Sigman:** The media focuses on content and activity and whether children are watching inappropriate things, but not enough is talked about the amount of time young people spend on screens, which is increasing every year. Childhood is a period of significant change in the brain’s anatomical structure and connectivity. The younger the child, the more easily the size, structure and function of their brain can be altered permanently as a direct result of their experiences. Screen habits are established early and last for decades.

The US Department of Health says children under two should be exposed to no television, videos or video games. The American Academy of Pediatrics recommends limiting screen use to one hour a day for children between two and five years old. In many homes screen viewing begins in early infancy; you can even buy an iPotty – a combination of iPad and potty designed to help young children with potty training, featuring a stand that holds the iPad securely, helping provide entertainment while they are seated. Ofcom research shows that a third of pre-schoolers
now own their own media device and 16-to 24-year-olds spend more time on media and communications than sleeping. This raises significant concerns over children’s cardiometabolic and psychosocial health. We are seeing the widespread emergence of screen-related addictive behaviour, which seriously compromises a child’s overall functioning. The research is unequivocal – too much screen time is unhealthy.

Screen rules

Vecht: Rules should be appropriate for a child’s personality and age and can be written down and shared with anyone else helping with childcare to reduce arguments. They should include clear rewards and consequences, as children do not like surprises. A consequence might be loss of screen time the next day. If after 20 minutes on the iPad they turn it off willingly, tell them you appreciate them keeping to your agreement – try to acknowledge what they are doing right rather than constantly telling them what they are doing wrong.

Sigman: One of the most important rules is what time at night the screen goes off. That should be non-negotiable. Children need sleep, and phones in the bedroom all night long have been linked with poor sleep – even if the phone is off. They should not use the phone as an alarm clock. It is too tempting to check social media and apps. Get them an alarm clock! Blue light from screens is associated with less deep sleep and less sleep overall, which in turn is associated with issues such as lower grades, higher body fat and a higher chance of depression. I would encourage parents to get all screen devices out of the bedroom if possible. It is a place to sleep, not an entertainment zone.

Setting an example

Vecht: We have a drop-off zone where phones are left in the evening to charge outside the bedroom. That also applies to my phone and my husband’s – 80% of parenting is about modelling. It is as important to think about your own behaviour as that of your children, and this includes things like not browsing on the phone in the street or when you are in the company of friends.

Sigman: I would agree that parental role-modelling is important. Research shows that parents who engage in high discretionary screen time have children who are many times more likely to engage in high discretionary screen time as well.

“Families interact by common experience, all doing the same thing, and distractions like phones work against that communal feeling.”

This can be a challenge for parents who work from home. They have to try to ensure discretionary screen time does not bleed into family time. Do not wander around the house with your phone, and do not let an electronic device interrupt what you were doing with your child – it makes them feel unimportant. You need to decide how, where and when to have screens at home. Think about setting screen-free time for the whole family as well.

Families interact by common experience, all doing the same thing, and distractions like phones work against that communal feeling. So make sure everyone puts their phones away in such situations, even if you are just watching a TV programme together.

Good screen behaviours

Vecht: In our family there are no mobile phones during family meals or in the car, because that is often a good time to have a chat – especially with teenagers, who might find it easier to tell you difficult things when you do not have the same intensity of eye contact that you have in other situations.

Sigman: Children should not multi-task while doing homework. They should not have other apps open – the research shows they make more mistakes and do not remember so well. They need to develop sustained attention and to learn to burrow deep into one thing. Sustained attention is required for good grades, problem solving and creativity. I like the principle of having separate devices for work and pleasure. If you can, consider having a separate computer for homework. It can be a cheap one just for school work.

Online safety

Vecht: One of the obvious concerns is online safety. There are endless apps and extensive parental controls and filters for different social media platforms and devices, but these are by no means 100% effective in keeping children safe. They are no substitute for talking to your children regularly about responsible internet use. And it has to be regularly. During teenage years in particular, the brain’s pre-frontal cortex, which is responsible for executive functioning skills, undergoes major rewiring. The ability to think through the consequences of actions and make logical decisions is impaired for a time.

I say my children should not connect with anyone on social media whom they have not met in person. We sit down together regularly and look at privacy settings. I tell them it is not that I do not trust them but my job is to keep them safe. I occasionally sit beside them and go through their Instagram and WhatsApp feeds, asking who people are and looking at the conversations.

Dealing with lapses

Vecht: You have to recognise that your children will make a mistake at some point and you will very likely find out. When we were young and did something inappropriate – say, at a party – only the people in that space knew about it, but now everything is out of your control.

For example, imagine that a group of children are at a party today. One of them might take an inappropriate photo of a friend without
the friend even realising. Then the photo gets posted online. Pretty soon it will have been seen by all kinds of people, perhaps even including the child's parents or grandparents.

The important thing in such circumstances is that your child should be able to talk to you without being terrified of the consequences. You have to help them deal with the situation without making them feel guilty or ashamed. You need to remember that good parenting is about engaging positively.

Banning and blocking do not work — children will only crave technology even more. Constant nagging, shouting, repeating, criticising and reminding are not effective either. Try to communicate and connect regularly with empathy and understanding. Show that you want to keep them safe and to help them develop good habits so they can learn to self-regulate and use screens in a positive way.

Focus on emotional intelligence

Vecht: A big part of the revised computing curriculum covers responsible and safe use of the internet, but I think the whole education system is outdated. Schools are concerned mainly about grades and knowledge, because that is how they are judged. We need to focus more on emotional intelligence. Skills like being able to communicate with others and being empathetic and understanding probably help you to be happier, more successful and enjoy better mental health. Recent research from UNICEF underlines the importance of social media for teenagers in building friendships, but too much can impair communication skills. The way you communicate using WhatsApp or by text is often different to the way you communicate in person, where you can pick up non-verbal clues. Reading those is a vital skill to learn and often only comes with lots of practice.

Sigman: It is easy to overplay the benefits of screen technology and to underestimate the harm its misuse may have on emotional intelligence and wellbeing. Parents and schools are courted and bedazzled by a prosperous, highly influential technology industry that implies that reducing screen time may in some way deprive children educationally and result in them being “left behind in the digital revolution”. A review of 132 brain-training, working-memory and video-game-training studies was recently carried out by Cambridge University in collaboration with other universities. The conclusion was that there is little evidence that such training enhances cognitive performance.

Keep safe, promote positive conversations

Rachel Vecht suggests the following questions can help you have positive conversations with children about their time online.

- Which social networking accounts do you have?
- What do you like about it?
- How does it work?
- What can you do on it?
- Who are your friends on it?
- Do you have friends online you don't know in person?
- Do you know how to go to privacy and account settings?
- Are people ever mean to each other online? Would you tell me?
- What is OK to share and not OK to share?
- What would you do if you were frightened, confused or uncomfortable about something you see online?
- Have you ever given any personal information online? Address? School? Date of birth? Password?
- What types of things can you do offline if you are feeling ‘bored’?
- What gaming sites have you signed up for?
- Do you know how to go to privacy and account settings?

For more information from our contributors please visit
www.educatingmatters.co.uk/blog
www.aricsigman.com
Saving the planet from plastic

The environmental damage that plastic waste causes has become a global problem. Steps to address the issue are now being taken worldwide, with a reduction in non-biodegradable plastics a key goal. But how close is science to offering us viable solutions?

Victoria Hoskins, Investment Director, Rathbone Greenbank

Plastic has created a pollution problem that extends even to the depths of our oceans.

Image: Paulo Oliveira/Alamy
The term “throwaway society” first appeared in an article in *Life* magazine in 1955. The piece was accompanied by a photo of a stereotypically clean-cut American family cheerily hurling an array of household objects into the air, as if casting off their unwanted cares.

It is extraordinary to think now that the general message, as encapsulated in that image, was that the freedom to discard once-used items signalled some kind of wonderful new age. Cleaning up was just another relic of the drudgery of yesteryear. The future lay in lobbing everything into the bin.

Today “throwaway society” has taken on a much darker meaning. Our disposable culture has created a pollution problem that reaches all around the globe, blighting everywhere from the streets of our cities to the depths of our oceans. And the material that has perhaps come to define the issue more than any other is plastic.

The first synthetic plastic, Bakelite, was invented in 1907. What made it revolutionary was that it was derived from fossil fuels — specifically, coal tar — rather than from a natural source such as an animal or a plant. It was so easy to mould that the casing for the famous Bakelite phone was said to have been produced in as little as seven minutes; it was also smooth to the touch and easy to keep clean.

Synthetic plastic has since become a part of our everyday lives. Yet the very same qualities that once saw its ubiquity celebrated — cheapness and durability — are now central to its role in environmental destruction. The fact that plastic is inexpensive to produce means the world is full of it; and the fact that it is not biodegradable means we are struggling to get rid of it.

Perhaps even more problematic is the way plastic is now seeping into the environment from our homes and factories. Biodegradable plastics that are still oil-based but contain additives to make them break down need to be disposed of in a controlled way — otherwise they break down into micro plastics, which are even more damaging. As international research and the media continue to highlight new evidence of the harm being done, the world is waking up to the scale of the problem.

Our changing attitude towards plastic bags offers an obvious example. In 2014, according to the UK government, British supermarkets supplied their customers with more than 7.6 billion single-use plastic bags — equivalent to around 140 bags per shopper. Since October 2015, when new legislation came into force, any retailer with more than 250 employees has been required to charge 5p per bag and so encourage the concept of the “bag for life” — resulting in usage in England falling by more than 80%.

“We are beginning to act,” says Gary Leeke, a professor of chemical engineering at Cranfield University and an expert on plastic and the science of recycling. “Bans on plastic carrier bags are even coming into force in countries such as Kenya, with fines of up to $38,000 or four years in jail for non-compliance. We are seeing the banning of microbeads in products. Coca-Cola is set to double the amount of recycled plastic in its bottles. Higher landfill taxes are being discussed in the UK to encourage recycling.”

“*Our disposable culture has created a pollution problem that reaches all around the globe, blighting everywhere from the streets of our cities to the depths of our oceans.*”

Such initiatives are undoubtedly encouraging, but Professor Leeke is quick to caution that much more remains to be done. “We need to be proactive as consumers and lobby for plastics and packaging that have minimal environmental impact,” he says. This is a challenge that teams at numerous British universities are now tackling, as the following examples illustrate.

**Biodegradable plastic**

Using the starch of plants such as maize or sugar, scientists can now make biodegradable polymers or plastics that are capable of decomposing naturally.

Another unusual source of material for biodegradable plastic is the shrimp shell. Researchers at the University of Nottingham
and the Nile University in Egypt are developing a way of producing shopping bags from dried shells bought cheaply from restaurants, supermarkets and local fishermen. The shells are cleaned, chemically treated, ground and dissolved into a solution that dries into thin films of plastic — a technique researchers say could be used for large-scale industrial production.

“Non-biodegradable plastic packaging is causing environmental and public health problems in Egypt,” says Dr Nicola Everitt, a bioengineer at the University of Nottingham. “This includes contamination of water supplies, which particularly affects the living conditions of the poor. Using a degradable biopolymer made of shells for carrier bags would lead to lower carbon emissions and reduce food and packaging waste.”

**Edible plastic**

Skipping Rocks Lab is a start-up company on a mission “to make packaging disappear.” Working in conjunction with Imperial College London, it has developed Ooho, a fully degradable spherical package made from seaweed extract.

Ooho is an example of edible plastic. This means the spheres can be filled with water or other drinks and safely consumed. The idea is that you place the package in your mouth, pop the jelly-like membrane and release the liquid inside — and swallow the lot whole if you wish.

Ooho should decompose within four to six weeks if not consumed. “Most people just grab a bottle of water, hold it for five minutes, drink it and throw it away,” says Lise Honsinger, Skipping Rocks Lab’s chief operating officer. “That bottle can then exist for 700 years. This is a solution to that.”

**Sugar plastic**

Scientists at the University of Bath’s Centre for Sustainable Chemical Technologies have found that some biodegradable plastics can be made using sugar and carbon dioxide. Such a process could help replace non-biodegradable plastics made from crude oil.

Using low pressures and room temperatures, researchers have made “alternative” polycarbonate — or bioplastic — that could be used for food containers. After use, as the enzymes in soil cause it to decompose, the material reverts back to carbon dioxide and sugar.

“Chemists have a hundred years’ experience of using petrochemicals as a raw material,”

Science is identifying ever more solutions to the problem of non-biodegradable plastic. Prawn shells can now be used to make containers (right), car interiors can be made from plant-based materials (below), and drink containers can be made from edible plastic (below left).

“Last year it was reported that a million plastic bottles are bought around the world every minute and that this will increase by another 20% by 2021.”
says research team member Dr Antoine Buchard. “We need to start again, using renewable feedstocks like sugars as a base for synthetic but sustainable materials. It’s early days, but the future looks promising.”

**Corn plastic clothing**

Polyester fabric was invented in the 1940s and quickly became popular for its wrinkle-free appearance. Only recently have its less desirable properties become apparent.

Microscopic polyester fibres can reach the oceans via the waste water from our washing machines. They have been discovered in some of the world’s deepest-living sea creatures. Research by the Scottish Association for Marine Science has identified polyester as the most abundant plastic in the oceans.

During the past decade, in a bid to address this issue, researchers have been developing a natural alternative to polyester, polylactic acid. Derived from corn starch, it can be used to make clothes with the same low-maintenance properties. Crucially, unlike polyester, it is biodegradable.

**Cars on the compost**

The automotive industry not only faces pressure to produce vehicles that limit environmental damage while on the road. It also faces pressure to produce vehicles that limit environmental damage when they are no longer clocking up the miles.

European Union figures highlight the scale of the “car composting” problem. The total number of “end-of-life” vehicles reported in the EU in 2007 was 6.3 million; by 2014 the figure had increased to nine million – potentially equivalent to a six-million-tonne scrapheap.

Scientists at the University of Warwick have been exploring ways of using a bamboo-like plant called miscanthus – also known as elephant grass – in car production. Short lengths of the hardy perennial have been incorporated as a biodegradable structural filler in plastic car parts such as wheel trims. In addition, car manufacturer Mazda has come up with the industry’s first high-strength, heat-resistant and plant-based bioplastic for interior parts.

“We need to be proactive as consumers and lobby for plastics and packaging that have minimal environmental impact.”

**Plastic-hungry enzymes**

The plastic commonly used in bottles is polyethylene terephthalate – usually known simply as PET. It is so strong that it takes hundreds of years to degrade.

A potentially game-changing solution to this problem has recently emerged in the form of PETase, a naturally occurring enzyme produced by a bacterium that effectively “eats” PET. It was originally discovered in sediments at a recycling plant in Sakai, Japan, and is now the subject of an international research effort.

Scientists at the University of Portsmouth are leading attempts to modify, optimise and engineer PETase with a view to using it to break down discarded plastic bottles in a matter of days. Such a process, if it could be successfully scaled, could revolutionise the recycling of PET products.

**Beyond science**

Despite these and other breakthroughs, we are still some way from inventing biodegradable alternatives for all of our plastics. In light of this, says Professor Leeke, we have to recognise the need to recycle more.

“Plastics are a benefit to society, and their growth is inevitable,” he says. “Recycling rates for certain plastics are set to increase, but we should be implementing a more intelligent waste strategy to recover, reuse and recycle these materials.”

Last year the *Guardian* reported that a million plastic bottles are bought around the world every minute and that this will increase by another 20% by 2021. This level of demand – equivalent to the purchase of around 20,000 bottles a second – is thought to be driven by the ever-growing market for bottled water and by emerging economies’ move towards a more urbanised, “on the go” culture.

Some 38.5 million bottles are used in the UK every day, with just over half recycled and the remainder ending up in landfill, burnt or leaking into the environment. In the developing world, where recycling is even more scarce, one innovative solution that has emerged recently is to use plastic bottles to build houses.

Susanna Heise, an environmental activist, came up with the idea while living in Guatemala. Using a stick to pack plastic bags and other non-biodegradable waste into a two-litre plastic bottle provides the core of an EcoBrick – a highly insulating, robust and affordable material that can be stuck together with cement or clay. Hug It Forward, an organisation that grew out of the concept, now helps communities build “bottle schools”.

We can also find ways to reduce the use of plastics in our daily lives. The past is a good place to seek inspiration. Paper bags, glass bottles and cardboard packaging served previous generations well enough. We can buy clothes made of natural fibres, like wool, silk and cotton. We can replace disposable coffee cups with metal flasks or even bamboo cups. In considering solutions, however, we need to source and produce responsibly to avoid unintended consequences. It is not about looking for quick answers that simply replace one problem with another.

Policymakers, too, are aware that they have a huge part to play. Encouraged by the success of the “bag for life” initiative, the UK government is considering further schemes to promote more sustainable living. In February this year Environment Secretary Michael Gove suggested that plastic straws, around 8.5 billion of which are used in Britain every year, could be banned.

The contrast between the desperate need for action and the misguided optimism of that *Life* article would be amusing if it were not so tragic.

As Sir David Attenborough remarked at the end of his recent BBC series, *Blue Planet II*: “We are at a unique stage in our history. Never before have we had such an awareness of what we are doing to the planet, and never before have we had the power to do something about that. The future of humanity and, indeed, all life on Earth now depends on us.”
University challenged

Graduates in England leave university with debts of more than £50,000 on average. Are there alternatives to studying for a degree or ways to reduce the costs? And if not, should parents who can afford it let their children fall into such heavy debt?

Helen Ingleson, Head of Advice and Research, Rathbone Financial Planning

Almost half of those aged between 18 and 30 will now go on to higher education but many families are beginning to challenge the wisdom of that move. Tuition fees alone now cost £9,250 a year at most English universities. On top of that, living costs can bring the bill for a three-year degree to over £60,000.

The government currently offers means-tested loans to students towards these costs but many parents will still find themselves paying a substantial proportion and are asking if they should just foot the whole bill.

Many commentators will argue that it is wrong to consider a student loan as a debt in the traditional sense — as a car loan might be. Where a student takes the loan option, as usually happens, they will only be expected to begin paying it off when they enter the world of work and reach an earning threshold of £25,000 p.a.. Typically, 9% of any earnings above the threshold will be taken from their wages.

From the day a student takes out their loan, interest accrues at a rate of 3% p.a. above RPI inflation, which itself is currently running at over 3%. This quickly compounds, growing faster than it can be paid off, but after 25 years the debt is written off. It means most are expected to never pay off their loan. So why worry about it?

Student loan debt does not undermine a graduate's credit record (unless they miss repayments), but the repayments do affect their take-home pay and therefore are likely to limit their borrowing capacity for things like a mortgage or car loan, where affordability is taken into consideration.

The first group of students facing this hefty debt is now entering the workplace. It is only just dawning on many of them how much they owe. Political pressure is already mounting. This February, Theresa May announced a wide-ranging review into post-18 education, looking into how future students will contribute to the cost of their studies, including the level, terms and duration of their contribution. The Prime Minister has, however, discounted the idea of moving back to a fully taxpayer-funded
system. Meanwhile, Labour has spoken about abolishing loans and cancelling student debt.

That leaves clients asking us a number of questions about how best to help their children and grandchildren to save for the higher education funding challenge. Unfortunately, it is not easy to give clear answers.

The rules on student finance keep changing every few years. We cannot foresee how they will change in future, and they vary from country to country within the UK. We can, however, offer here some principles and ideas that might help families with the process of thinking through the issues.

Alternatives to university

The first question is, is it worth your child going to university? The government estimates that a degree is worth an extra £250,000 in lifetime earnings for a woman and £170,000 for a man. However, this is not always the case. For example, it has been found that those with degrees in the creative arts earn no more on average than non-graduates. And, more generally, there are signs that the gap between graduates and non-graduates is shrinking as more people go to university. Whether a degree is worthwhile could well depend on the job your child aims to do. It may also depend on which institution they study at. The Institute for Fiscal Studies has found large differences in earnings according to which university was attended — in part driven by differences in entry requirements. It found 23 institutions for men and nine for women where the median graduate earnings were less than those of the median non-graduate 10 years on.

If your child or grandchild shows no interest in studying or does not know what they want to study, it may be worth them postponing the decision until they are more mature or certain.

Apprenticeships are another option. The Rathbones apprenticeship scheme is now in its fourth year and has been so successful that it has been extended. It offers young people the chance to work in several departments over the course of two years and receive on-the-job training.

“Many parents and grandparents are faced with the dilemma of whether to pay all the fees and costs or let their children take out a loan.”

With courses covering skills as diverse as engineering and haute cuisine, apprenticeships can offer a viable alternative to university.

Other companies, like Rolls-Royce, offer apprenticeships that mix work with paid university study leave. The apprenticeship model is growing and is worth researching. Apprentices work alongside experienced staff, gaining job-specific skills. Schemes can last from one to five years, depending on their level, and some can be the equivalent of a degree.

Ways to study more cheaply

For those who wish to go to university there are a number of options, albeit limited, to help reduce costs.

For example, there are generous bursaries and sponsorships for students committed to careers in the armed forces to help them through university first.

At Scottish universities, students who are residents of Scotland usually receive free tuition. This compares with £9,250 in England and Northern Ireland and up to £9,000 in Wales. They can also apply for loans to support maintenance but the repayment amount is 9% of their salary above £25,000. Before buying a second home in Edinburgh, it is worth checking out the definitions of what counts as residency!

Another option is to study abroad. Research published last year found that some international degrees were a third of the cost of a UK degree. Germany was ranked as the cheapest place to study: with the country’s public universities operating a free-tuition system for international students, the average annual cost of studying is around £6,700 — made up almost entirely of living costs — compared to around £18,300 for a student in England. Some Italian institutions will offer free tuition as well as an allowance to cover living costs to successful applicants. Whether that remains the case after Brexit remains to be seen.

It is important to find out whether a degree from an overseas institution is internationally recognised. Even if it does not have quite the same allure perhaps as a degree from a British Russell Group university, an international degree may still impress employers because of the language
expertise and resilience demonstrated to achieve success.

To pay or not to pay

If none of these money-saving alternatives is viable or appealing, and a place at a British university is the only option, many parents and grandparents are faced with the dilemma of whether to pay all the fees and costs or let their children take out a loan.

“Research published last year found that some international degrees were a third of the cost of a UK degree.”

If you take the former option and a future government cancels loans it may prove to have been money wasted. Even if the Prime Minister’s review fails to offer any meaningful concession and the current loan system remains in place permanently, a number of other issues will affect whether it is worth paying fees to avoid student loans. If your child chooses a low-paid career or decides to switch courses or do a Masters degree (meaning they study for longer than three years), you may find yourself paying far more than they would themselves under the current system. The money you plan to give them might actually be better used helping towards the deposit for a house, saving them rental costs, potentially reducing the amount of interest they pay on their mortgage and providing longer-term security.

At the moment there are no rules to prevent you paying off a loan for your child or grandchild at a later date. Given the uncertainties over the student funding system, and while you wait for greater clarity on your own child’s position, you may want to consider the option of starting with a student loan and temporarily investing savings you have accrued for financing higher education. With interest currently accruing at over 6% p.a. there is likely to be a cost for putting off a decision but it may be one worth paying. If you do opt for this compromise solution it is worth seeking advice on how best to invest the money given what might be a short-term time horizon.

To pay or not to pay

If none of these money-saving alternatives is viable or appealing, and a place at a British university is the only option, many parents and grandparents are faced with the dilemma of whether to pay all the fees and costs or let their children take out a loan.

“Research published last year found that some international degrees were a third of the cost of a UK degree.”

If you take the former option and a future government cancels loans it may prove to have been money wasted. Even if the Prime Minister’s review fails to offer any meaningful concession and the current loan system remains in place permanently, a number of other issues will affect whether it is worth paying fees to avoid student loans. If your child chooses a low-paid career or decides to switch courses or do a Masters degree (meaning they study for longer than three years), you may find yourself paying far more than they would themselves under the current system. The money you plan to give them might actually be better used helping towards the deposit for a house, saving them rental costs, potentially reducing the amount of interest they pay on their mortgage and providing longer-term security.

At the moment there are no rules to prevent you paying off a loan for your child or grandchild at a later date. Given the uncertainties over the student funding system, and while you wait for greater clarity on your own child’s position, you may want to consider the option of starting with a student loan and temporarily investing savings you have accrued for financing higher education. With interest currently accruing at over 6% p.a. there is likely to be a cost for putting off a decision but it may be one worth paying. If you do opt for this compromise solution it is worth seeking advice on how best to invest the money given what might be a short-term time horizon.
Why stewardship matters

Unchecked decisions at high levels were at the heart of the global financial crisis. Today, a decade later, there is a far sharper focus on how organisations are governed, with institutional investors expected to take a much more robust stance in calling to account the companies whose shares they own. As a leading asset manager, Rathbones takes its stewardship responsibilities seriously.

Matt Crossman, Stewardship Director, Rathbones
The bailout of the Royal Bank of Scotland (RBS) was arguably the single most seismic event witnessed in the UK economy. Northern Rock had suffered a similar fate only months earlier, but this was a downfall on an altogether different scale.

With hindsight, it is clear that RBS’s board had chosen to prize expansion above all else. In 2000, in a move that transformed the bank from a regional player to an acknowledged powerhouse, CEO Fred Goodwin and his fellow executives had defied the odds to buy English rival NatWest for £2.1 billion. In 2007, when they turned their attention to the Netherlands’ ABN Amro, they significantly overreached.

The £49 billion deal, completed with Spain’s Banco Santander and Belgium’s Fortis, represented the biggest bank takeover ever. According to the findings of a Financial Services Authority inquiry published four years later, the due diligence for this record-breaking acquisition was informed by two lever-arch folders and a CD. The board’s logic was that the NatWest coup, though hostile, had yielded some “pleasant surprises” and that this latest move, though also hostile, would surely do the same.

It turned out, of course, that the surprises would prove anything but pleasant. The purchase was finalised even as share prices everywhere were plunging and only weeks after the fast-developing credit crisis had overwhelmed Northern Rock. RBS’s board saw fit neither to withdraw nor to renegotiate as the US sub-prime market went into meltdown. Goodwin and the other directors pressed ahead. And the rest, as they say, is history.

**The dog that didn’t bark**

For whatever reason — and it may be worth noting that RBS made a concerted effort to win backing for its plans — almost 95% of shareholders who voted on the proposal supported the acquisition of ABN Amro. As former Financial Times editor Sir Richard Lambert observed in 2011, it was a classic instance of “the dog that didn’t bark”.

“Investors were only bit players in this drama,” he wrote. “They played no part in holding the board to account.” Large institutional investors in particular were subsequently criticised for their apparent passivity, with the Treasury Select Committee suggesting they had “a case to answer” over the extent of their willingness to engage with and challenge investee companies.

As owners of any business, shareholders have rights. One of the most precious is the right to vote against management proposals as and when they see fit and to have those votes bind management. At that time, however, the broader culture simply did not expect shareholders to exercise their rights.

It was with this concern very much in mind that the Financial Reporting Council published its Stewardship Code in 2010. The result of a major review of governance within banks and other financial institutions, the code “aims to enhance the quality of engagement between investors and companies to improve long-term risk-adjusted returns to shareholders”.

Rathbones was well aware of the need to deepen its approach to stewardship and governance issues and established its first internal committee looking at the issue in 2010. Although there are many ways in which it might be defined, we think of stewardship as an active approach to holding shares. We believe it is in the interests of our clients and society for the companies in which we invest to adopt best practice in their corporate governance; and we believe it is our duty to exercise our shareholder rights to hold those companies to account and, where appropriate, to try to bring about positive change.

**Stewardship in action**

Rathbones’ Stewardship Policy was approved in 2016. It built on a more active approach to proxy voting — one that had been in place since 2010. Our voting policy now covers a range of issues, of which we consider four especially significant.

**Encouraging responsible leadership**

A balance between independent and non-independent directors is fundamental to a good board.

Naturally, it is vital to have people who know the business inside-out. Yet it is also vital to have people who are able to critique the direction that management might be taking and who can represent the interests of longer-term stakeholders.

An independent chairperson is especially important in this regard. It is the chair’s job to set the agenda and ensure that the right issues are discussed, even if the topics might not be ones with which management are particularly comfortable.

**Aligning interests**

Executive pay is usually the subject of the most contentious votes at shareholder AGMs. As we discussed in the Winter 2016 edition of Rathbones Review, our position on this matter is clear: variable pay arrangements must incentivise executives to act in the best long-term interests of all stakeholders, and we will vote against when this is not the case.
Arthur Andersen, which at the time was one of the world’s largest auditing and accountancy partnerships, was found guilty of obstructing justice after shredding documents detailing massive losses in connection with the Enron scandal in the early 2000s.

We are wary of situations where auditors’ proportion of non-audit work exceeds a certain ratio. This was the problem that developed at Enron: Arthur Andersen was earning so much from consultancy and other activities that it stopped providing an objective and reliable picture of its client’s financial status.

We are also wary of companies retaining the same auditors for long periods. Tesco kept the same auditors for more than three decades, and in 2014 it emerged that profit figures had been systematically overstated – to the detriment of shareholders. Our policy is to vote both against the re-election of auditors earning too much from non-audit work and against those that have been in post for too long without formal re-tendering.

Driving stakeholder engagement

Good stewardship is not just about meeting the best interests of shareholders. It is also about meeting the best interests of other stakeholders, including employees, communities and society as a whole. The events of 2007 and 2008 delivered a devastating warning of what can happen when this is forgotten – and it is still too often forgotten today.

More recently, the fall of construction giant Carillion, which continued to make regular payouts to investors while ignoring the threat of mounting pension deficits, neatly highlights the difficult debates we must navigate in our voting. Our investors clearly want income from dividends; but conspicuously favouring one set of stakeholders above another frequently leads to a lose-lose scenario, which is why we look to help companies and their senior managers plot a more equitable path.

This is in keeping with the broader notion of what has come to be known as “responsible investing”. Environmental, social and governance (ESG) considerations are being incorporated into a growing number of investment decisions, and a wealth of academic research indicates that improved governance is the ESG component that can add the most value for investors and the wider world alike.

Ten years on — and beyond

It would be unrealistic to assert that what happened at RBS a decade ago could not happen today. Good governance still cannot and must not be taken for granted.

Two years ago, for example, BP CEO Bob Dudley stood to receive a total package in excess of £13 million, despite the company shedding jobs and making a sizeable loss. This was precisely the type of situation we refuse to endorse: an organisation saddled with a falling share price yet seeking to hand its senior management improved payouts.

Transparency is key here. We often receive remuneration reports that feature metrics whose fairness or otherwise cannot be discerned, and in such instances we invariably vote against. The goal should be to encourage the right sort of behaviour and to share success and boost morale across a company in its entirety.

Ensuring auditors do their job properly

Auditors can make a huge contribution to good governance. They can also make a huge contribution to bad governance.
Traditional High Street banks have arguably never before been under such pressure to move with the times.

Bloomberg/Getty Images
The future of banking

Banks have proved unusually resilient to the disruptive forces reshaping almost every field of business, yet the gradual transformation of the sector is becoming ever harder to deny – and to resist. Are our traditional banks now under threat?

Robert Hughes-Penney, Investment Director, Rathbones

Many revolutions are quiet, but the one that officially began on the second Saturday of this year was particularly low-key. Apparently unheard of by the vast majority of the UK population, the Open Banking age commenced in earnest.

Open Banking aims to encourage individuals to share their transaction data with whichever companies they wish, so allowing those companies to analyse the information and try to offer better deals. The idea relies on apps – software designed to run on smartphones and other mobile devices – that enable customers to aggregate and view all of their accounts in one place and to compare their existing products and services with any others available.

The official definition offered by the Open Banking Implementation Entity (OBIE), a body set up by the UK’s largest providers of accounts for individuals and small businesses, is that this will let customers “make the most of their financial data and easily and securely access services from a wide range of companies that better meet their needs”.

A landmark inquiry into retail banking paved the way for this new era. Carried out by the Competition and Markets Authority (CMA), the probe cost around £5 million, took almost two years to complete and was published in August 2016. Condemning big banks’ clear advantages over their less recognised counterparts, it declared: ‘Older and larger banks do not have to compete hard enough for customers’ business, and smaller and newer banks find it difficult to grow. This means that many people are paying more than they should and are not benefiting from new services.’

“Banks have frequently been buffeted by the winds of change, but they have very seldom – if ever – surrendered to the gales of creative destruction.”

Although the inequities of the system were already widely known, it was important that regulators and policymakers should acknowledge these manifest failings. It was important, too, that the public’s long-held suspicions should be confirmed. The CMA’s findings were vital to setting in motion a series of measures intended to level the playing field, and the advent of Open Banking is perhaps the most significant milestone so far on the proposed road to transformation.

It is a revolution that has technological change at its heart. It has been touted as potentially the most seismic shake-up in the annals of personal finance. So could it strike a decisive blow in banking’s ever-intensifying battle between the extant and the innovative?

Banks have frequently been buffeted by the winds of change, but they have very seldom – if ever – surrendered to the gales of creative destruction. The sector’s most familiar names owe much of their longevity and pre-eminence to an uncanny ability to tread the line between incremental evolution and radical metamorphosis, moving with the times when necessary while determinedly retaining the core attributes that have invariably served them well.

What is different now is the extraordinary pace at which technology is advancing and the all-encompassing applicability of the resultant breakthroughs. Maybe nowhere is this more obvious than in the rise of big data – the analysis of huge quantities of information, much of it generated by “smart” devices such as mobile phones, to reveal patterns, trends and associations, especially in relation to human behaviour and interaction.

This phenomenon lies at the heart of arguably the greatest source of disruption confronting banks today: fintech – financial technology. “Fintech is the real game-changer,” says Dr Robert Webb, an associate professor of banking at Nottingham University Business School and the author of Economics Express: Financial Markets and Institutions. "In the past banking was about reputation, bricks and mortar. It was about having a recognisable name and a branch network. Thanks to fintech, all of that is disappearing. I’ve been working in this field for a quarter of a century, and this is the first
Evidence of this change is not hard to find. The loans industry in particular has become a fintech poster child, with digital platforms meeting the needs of the “underserved” and the “unbanked” — those unable to satisfy conventional banks’ lending criteria — by delivering a process that is paperless, personalised and completely data-driven.

A torrent of innovation is redefining the likes of fundraising, payments, transfers and insurance, and the notion of consumer choice is more often than not key. It is certainly at the core of Open Banking, yet for many critics the inference that a multi-million-pound inquiry had culminated in the endorsing of some fancy new apps provoked derision. A Which? survey’s subsequent revelation that 92% of Britons had not even heard of Open Banking just months before its launch further fuelled claims that the CMA had produced a damp squib.

Such pessimism underestimates the sheer power of big data. As an article in leading tech magazine Wired pointed out, Travis Kalanick needed only maps and location data to invent Uber; Mark Zuckerberg needed only names, ages and universities to invent Facebook. What might a cutting-edge financial start-up company — or, for that matter, the likes of Amazon and Google — be able to achieve if presented with a detailed record of a person’s spending, borrowing and shopping?

Historically, customers have chosen a bank more or less at random and stuck with it through thick and thin. Research has shown that this inertia usually stems not from loyalty or satisfaction but from apathy, concern about the difficulty of changing standing orders and direct debits and a belief that there are no conspicuously superior alternatives to be found. Even cash incentives failed to prevent the number of account switchers hitting a new low — fewer than 60,000 in a month — late last year.

This stasis has long represented a passport to oligopoly for the big banks, but Open Banking could finally spark a change. The future, even in this most resistant of realms, looks digital.

“To the millennial generation,” says Dr Webb, “names like Lloyds and Barclays mean nothing. They’re not interested in having a branch on the High Street or applying for a loan in person. The names that resonate with millennials are the names of tech companies, and it’s tech companies that are going to make banking as straightforward as listening to music — with pretty much everything the customer could ever want out there, easily accessible and ‘always on’.”

In 2016 a Citigroup report warned that the banking industry could shed around 1.7 million jobs in Europe and the US by 2025 as a consequence of fintech’s impact on its most profitable business niches. As the ranks of innovative newcomers swell, the incumbents are facing mounting pressure to adopt a “digital by default” philosophy.

Some are already responding. Last September, announcing that it would “embrace Open Banking as an opportunity”, HSBC became the first major UK bank to release an aggregator app, while RBS and Santander have entered into partnerships with prominent fintech firms.

According to Jeni Tennison, CEO of the Open Data Institute, a non-profit organisation founded by worldwide web creator Sir Tim Berners-Lee, banks have “come a long way”. “It’s a big a leap to go from having absolute control over the information they’re putting out to publishing open data,” she told Wired last year.
Yet Tennison also noted that banks are “quite scared”. At least at present, much of their fear can be attributed to a regulatory environment that could see them punished if customers commit to inappropriate products and services. Going forward, say some experts, what they should really be afraid of is the prospect of Amazon, Google or a similar tech leviathan rendering them practically obsolete at a stroke.

“Banks have had their worries in the past, but the conditions for an all-out restructuring of the market have never truly existed before,” says Dr Webb. “It’s different now. If the very biggest tech players decide to get involved then a bank trotting out a new app is going to be the equivalent of a sunbather donning a small pair of water wings just before a tsunami hits the beach. We’re talking about a huge tidal wave of innovation, and there’s no telling what it might sweep away.”

Every innovation brings winners and losers. In this instance the winners look most likely to be fintech firms and the consumers to whom they grant unprecedented flexibility and freedom of choice; and the losers look most likely to be those banks that flatly refuse to countenance the possibility that the aforementioned gales of creative destruction might at last blow their houses down.

Naturally, this quiet revolution may take a while to unfold in full. Studies have indicated that many people could be reluctant to share their data, mainly because of security concerns. Banking licences are not handed out on a whim. The OBIE cautions that a “vibrant, innovative new market for financial services” will develop “in time”. But it will develop.

Ultimately, it is difficult to envisage anything other than a future in which banking, like so much else, is dominated by digitisation and data. “The walls that have surrounded conventional banking for so long are finally tumbling down,” says Dr Webb. “Even now there are only a few bricks left, and they’ll be gone soon enough. Then it will just be a matter of who’s driving the bulldozers.”

The UK’s “challenger” banks could play a major role in the battle between the established and the emergent. Smaller and more tech-savvy than their traditional counterparts, they are usually able to offer superior deals by virtue of their lower overheads.

Most, such as Atom and Monzo, are almost exclusively digital. This means they have no need to undergo lengthy and expensive tech transformations and can instead use innovation to grow from the ground up.

A few have a small number of branches, often going to great lengths to distinguish them from their established competitors. Metro Bank’s outlets are open seven days a week, from 8am to 8pm, and include drive-thrus and a recently opened branch on London’s King’s Road, where real-estate prices are famously high. Traditional banks still have far more physical outposts – while Metro has 56, Lloyds, Barclays, NatWest and HSBC each have more than a thousand – but have been steadily reducing their infrastructure for many years as part of cost-cutting measures.

The list of challenger banks might today also be said to include the likes of Zopa, which launched as a digital lender, was recently granted full authorisation by the Financial Conduct Authority (FCA) and has now applied for a banking licence. This move should allow it to expand its product range, attract cheaper funding and progress towards becoming a fully fledged bank.

Like Zopa, many challengers have enjoyed a significant head start over conventional banks in the race to digitise. Nonetheless, leading figures in the sector have expressed different views regarding the likely future of banking and the potential extent of their own contribution.

Some claim that more could still be done to end the long-term titans’ domination. “Government policy is that they want to see greater competition,” Paragon chief executive Nigel Terrington told the Daily Telegraph in November 2017, “but the big banks today still have a bigger market share than before the financial crisis.”

Samir Desai, co-founder and CEO of Funding Circle, another digital lender granted full authorisation by the FCA, is among those who argue that start-ups have already developed a fintech-driven competitive advantage that their conventional rivals may never be able to overcome. “Banks have a lot of data, but they’re going to have to learn all over again,” he said last year. “There will definitely be more competition – we expect that – but platforms like ours are getting to levels of scale and data that will also make us very difficult to dislodge.”

Metro Bank is one of a number of “challengers” whose approach differs from that of more traditional banks.
Horatio's Garden

Horatio's Garden is a national charity that creates and cares for beautiful, accessible and therapeutic gardens at NHS spinal injury centres. Rathbones is proud to help sponsor these inspiring projects, which grew out of the vision of one remarkable teenager.

Angus Kerr, Investment Director, Rathbones

Horatio Chapple was a schoolboy with a passion for people, nature and adventure. The son of a surgeon and a GP, he dreamed of a career in medicine and was known to friends as “doctor in waiting”.

In 2011, aged 17, he devoted his summer holiday to serving as a volunteer at Salisbury District Hospital’s Duke of Cornwall Spinal Treatment Centre. Having spent several weeks helping to provide care, he suggested building a garden for patients – somewhere peaceful and relaxing for them to spend time during their often lengthy stays.

Encouraged by his father, spinal surgeon David Chapple, Horatio compiled a questionnaire to get feedback on his idea. It revealed that patients were massively in favour of his proposal. He even took the chairman of the NHS Foundation Trust to a first-floor window of the unit to show him a plot he had earmarked for the project.

Today, with its summerhouse, tall shrubs and spine-shaped limestone walls, what is known as Horatio’s Garden is a stunning realisation of the youngster’s formative vision. It also stands as a tribute to his memory.

Horatio died weeks after outlining his plan. He was killed by a polar bear while taking part in an expedition on the Norwegian Svalbard Islands, where the animal managed to enter camp after a perimeter tripwire alarm failed to activate.

The garden grew out of the tragedy. An appeal launched shortly after Horatio’s death raised tens of thousands of pounds within weeks, and the Horatio’s Garden charity was born.

Cleve West, a multiple Royal Horticultural Society (RHS) award winner, was commissioned to transform the Salisbury site. He knew it well, as a close friend had been a patient at the centre.

West used Horatio’s questionnaire as his starting point and also sought the views of nurses, therapists, doctors and managers. He even asked to be taken around the plot in a hospital bed and a wheelchair so he could appreciate what patients would see. He worked on his design while listening to Horatio’s favourite music and included several references to the teenager, such as water features to reflect his love of swimming and an apple-tree archway to signify his fondness for apple crumble.
These beautiful and highly accessible gardens serve both as sanctuaries for patients and as testament to the kindness and courage of the young man who first envisaged them.

As the garden gradually took shape, plants and other elements were chosen both for their aesthetic qualities and for their sensory contributions: long grasses to catch the wind, herbs to smell and taste, a babbling brook — all intended, as West explained, to ensure that “the benefits of nature can be felt”. Appropriately, a variety of goat’s beard known as Aruncus Horatio was among the perennials selected to decorate the borders.

The garden opened in September 2012, duly earning West three Society of Garden Designers awards. It was such a success with patients and visitors that the idea was extended to other spinal injury centres around the UK. There are now Horatio’s Gardens at Glasgow’s Scottish National Spinal Unit and the National Spinal Injuries Centre at Stoke Mandeville Hospital, Aylesbury.

James Alexander-Sinclair, a member of the Council of the RHS, designed the former. He has created spectacular gardens all over the world but has insisted: “Horatio’s Garden in Glasgow is the most meaningful garden I have ever designed.” Gardeners’ World presenter Joe Swift has described overseeing the Stoke Mandeville project as “an honour”.

Horatio’s Gardens are also being built at the Midland Centre for Spinal Injuries in Oswestry and the Royal National Orthopaedic Hospital in Stanmore, London. Gardeners’ Question Time host Bunny Guinness and Chelsea Flower Show gold medallist Tom Stuart-Smith are the latest celebrated designers to offer their services.

Rathbones is delighted to have helped Horatio’s Garden grow as a national charity. We are proud to support continuing efforts to create and care for these beautiful and highly accessible gardens, which serve both as sanctuaries for patients and as testament to the kindness and courage of the young man who first envisaged them.

As Horatio’s mother, Olivia Chapple, said in a Daily Telegraph interview to mark the fourth anniversary of her son’s death: “I know that in life he was going to have a profound effect on a lot of people. This way he can still do that — his life has a purpose beyond the people who knew him.”

For further information visit www.horatiosgarden.org.uk
Opened in 1976, the National Theatre has served as a typically controversial example of the brutalist school. Prince Charles once described it as "a clever way of building a nuclear power station in the middle of London without anyone objecting". 

Image: Ian Pilbeam/Alamy
Brut strength

Brutalism was arguably the UK’s defining architectural movement in the 1960s and 1970s. By the 1980s it was rapidly falling out of favour, and by the 1990s it was widely despised. But the mood is changing. Are we finally learning to appreciate concrete?

Nick Fisher, Investment Director, Rathbones

Brutalist architecture was perhaps cursed with an innate disadvantage from the moment the term was coined. After all, “brutal” has precious few attractive synonyms. A style whose very name invites connotations of harshness, ugliness and cruelty hardly makes life difficult for its opponents.

The blame is said to rest with Reyner Banham, whose 1960 treatise, Theory and Design in the First Machine Age, remains one of modernism’s definitive works. Banham took a phrase first used by Swedish designer Hans Aplund and turned it into a bilingual pun on béton brut — the French for “raw concrete”.

The enduring irony is that Banham was an unapologetic champion of the brutalist school. What he seemingly failed to foresee was that the movement’s enemies — especially those unable to speak French and therefore blissfully ignorant of béton brut’s relevance — would focus exclusively on the English component of his play on words and forever decry it as brutalism’s intrinsic admission of its own flaws.

A further irony is that brutalism was never meant to shock or appal. If anything, it was intended to inspire and assist. Every architectural epoch reflects the spirit of its time, and brutalism was a corollary of an era moulded by the newly formed welfare state and a steadfast belief — misplaced or otherwise — in the wisdom of urban planning and communal living. In the words of Christopher Beanland, author of Concrete Concept: Brutalist Buildings Around the World: “It was about the multitude. These schools, libraries, council flats, newspaper offices, shopping centres and hospitals were gifts from benign bureaucracies for society to share.”

Today, half a century after brutalism’s short-lived heyday, this more sympathetic and optimistic view of one of the most controversial periods in the history of architecture is gaining ground. The fight to preserve the best of brutalism is well under way — much as the battle to halt its supposedly insidious advance once raged with the same intensity.

In the early 1960s, with the modernisation of post-war Britain proceeding at pace, the tension between old and new was perfectly crystallised in the unsuccessful campaign to save the Euston Arch. Pitching the protagonists of the past against the proponents of progress, this was a clash that was in every way monumental.

Built in 1837, the arch was hailed by the Architectural Review as “one of the outstanding architectural creations of the early 19th century”. The British Transport Commission and London County Council...
had little time for such romantic notions and earmarked it for destruction, along with the rest of the original Euston Station, as part of a scheme to haul the capital’s rail system out of the steam age. Despite the efforts of future Poet Laureate John Betjeman, *The Buildings of England* author Nikolaus Pevsner, Royal Academy president Charles Wheeler and organisations such as the Victorian Society, demolition began in late 1961. The brutalist new Euston Station took shape, and the arch’s remains ended up at the bottom of the River Lea, East London, plugging a chasm in the bed of the Prescott Channel.

The outcome represented both a crushing defeat for the preservationists and the birth of the brutalist boom. Architects such as husband-and-wife duo Alison and Peter Smithson, Hungarian-born Ernő Goldfinger and self-declared egalitarian Rodney Gordon — all of them influenced by Swiss-French counterpart Le Corbusier’s trailblazing fondness for béton brut’s exposed surfaces — soon transformed Britain’s urban landscapes with buildings that redrew the lines between form and function.

London’s most celebrated examples included the Smithsons’ Robin Hood Gardens housing estate and Goldfinger’s Balfron Tower, both in Poplar. These were landmark realisations of the “streets in the sky” approach to town planning, as was Goldfinger’s Trellick Tower in nearby Kensal Town. The Southbank and Barbican Centres, the Royal College of Physicians and another of the Smithsons’ creations, the Economist Building in Piccadilly, added to the sharp-edged fray.

Elsewhere the cause was furthered by the likes of Gordon’s determinedly angular Tricorn shopping centre, Portsmouth, which even Ian Nairn, the celebrated denigrator of “subtopia”, hailed as “an architectural orchestration that is the equivalent of Berlioz or the 1812 Overture”. Sheffield’s Park Hill flats, Preston Bus Station and the halls of residence at Norwich’s University of East Anglia also ranked among the greats. And then there was Gateshead’s Trinity Square multi-storey car-park, which Michael Caine immortalised as a conveniently precipitous murder scene in the classic early-’70s crime thriller *Get Carter*.

Yet brutalism lost favour as quickly as it had earned it. Many of these buildings neither aged well nor retained an initial appeal that in most cases was derived from their sheer out-of-the-ordinariness.

“Many of these buildings neither aged well nor retained an initial appeal that in most cases was derived from their sheer out-of-the-ordinariness.”

Like the Euston Arch, many of brutalism’s foremost specimens have been lost to the wrecking ball and the bulldozer. The demolition of Robin Hood Gardens began last year, despite a campaign initiated by the Twentieth Century Society and supported by an international array of architects and architectural historians. The Tricorn bit the dust in 2004, three years after Radio 4 listeners voted it the most hated building in Britain. The Trinity Square multi-storey car-park was levelled in 2010, rendered every bit as flat as the crooked councillor whom Caine had once so memorably propelled from its top tier.

Of Canning Town’s Ronan Point tower block in 1968, just two months after construction was completed, shook wider confidence in Britain’s newfound bent for steel and concrete. With brutalist architecture serving as the backdrop to bleak science-fiction dramas such as Jean-Luc Godard’s *Alphaville* and Stanley Kubrick’s *A Clockwork Orange*, cinema reinforced growing fears of a ready-made dystopia.

In 1984, addressing the 150th anniversary of the Royal Institute of British Architects (RIBA), Prince Charles channelled his inner Betjeman to deliver his famous “monstrous carbuncle” speech. It was to prove a decisive turning point in brutalism’s fortunes. Even the new Euston Station, whose advent had apparently signalled the demise of Victoriana, would eventually be condemned in the pages of *The Times* as “one of the nastiest concrete boxes in London”.

Like the Euston Arch, many of brutalism’s foremost specimens have been lost to the wrecking ball and the bulldozer. The demolition of Robin Hood Gardens began last year, despite a campaign initiated by the Twentieth Century Society and supported by an international array of architects and architectural historians. The Tricorn bit the dust in 2004, three years after Radio 4 listeners voted it the most hated building in Britain. The Trinity Square multi-storey car-park was levelled in 2010, rendered every bit as flat as the crooked councillor whom Caine had once so memorably propelled from its top tier.
Yet very little in this world stays unfashionable in perpetuity, and brutalism offers no exception. The wheel has turned full circle, and the brutal is back in vogue. Balfron Tower has been turned into luxury apartments. Trellick Tower is one of the many brutalist structures that now enjoy listed status. Park Hill has been conspicuously gentrified. Preston Bus Station has survived numerous official death notices and underwent a multi-million-pound renovation two years ago. In 2014 English Heritage even staged an exhibition, *Brutal and Beautiful*, with a view to examining “our love/hate relationship with England’s recent architectural past”.

And maybe love and hate is what it all comes down to in the end. As architectural critic Jonathan Meades observed in previewing *Bunkers, Brutalism and Bloodymindedness: Concrete Poetry*, his BBC Four documentary about the brutalist school’s renewed appeal: “Something that’s universally tolerated is likely to be pretty boring. Anything that’s any good — and original — is going to incite hatred as much as it does adoration, because of the very fact that it’s so unfamiliar.”

Perhaps, too, we have learned to appreciate that these buildings were very much products of their time. According to John Grindrod, author of *Concretopia: A Journey Around the Rebuilding of Postwar Britain*, they were the results of sincere attempts to make things better in the face of public debt and economic austerity — not, as was long assumed, the malevolent acts of “a team of super-villains who had their corrupt, megalomaniac way with the country for 30 years”. Gordon, whose career-defining Tricorn would one day be dismissed by Prince Charles as akin to “a mildewed lump of elephant droppings”, remembered it as “the age of the people... when feelings of egalitarianism and concern for all were the norm”.

Two-time RIBA president Owen Luder, whose firm counted both the Tricorn and Trinity Square among its most divisive projects, once lamented what he saw as brutalism’s ill-fated life-cycle. “In the ’60s,” he said, “my buildings were awarded. In the ’70s they were applauded. In the ’80s they were questioned. In the ’90s they were ridiculed. And when we get through to 2000 the ones I like most are the ones that have been demolished.” Today, against all expectations, the cycle is beginning to move on again.

The Victoria and Albert Museum has rescued an eight-tonne fragment of the Robin Hood Gardens estate. This year the piece has been transported by barge to the Venice Architecture Biennale and reassembled on a scaffold to allow visitors to stand on an original “street in the sky”.

Olivia Horsfall Turner, the exhibit’s co-curator, hopes the ruins will “inform and inspire current thinking about social housing”. They may also help us to revise our views of this distinct period of architectural history — and even persuade us to preserve more of it.
A new era for the Royal Academy

The Royal Academy of Arts, the world’s foremost artist and architect-led institution, celebrates two-and-a-half centuries this year, with the unveiling of new exhibition space that will allow it to show more art than ever before.

Natalie Rizzi, Investment Director, Rathbones

Two hundred and fifty years after it was founded with a mission to promote the arts in Britain through education and exhibitions, the Royal Academy of Arts has undergone a “transformative” redevelopment.

Internationally acclaimed architect Sir David Chipperfield, himself a Royal Academician, is the man behind the redesign, which includes joining the RA’s two buildings — Burlington House on Piccadilly and, backing on to it, 6 Burlington Gardens in Mayfair — as a single campus. The site’s new features include the Weston Bridge, which links the two buildings; the Gabrielle Jungels-Winkler Galleries, which will host temporary exhibitions; the Benjamin West Lecture Theatre; the Clore Learning Centre; and additional spaces for free displays of art and architecture.

The redevelopment — paid for with a £12.7 million grant from the National Lottery and support from a number of individual donors — means visitors will be able to see more of the historic masterpieces from the RA’s own collection, more of the RA’s world-class exhibitions programme and more of the work from the RA’s Schools.

“The big change is that the Royal Academy will have two entrances — a front door facing Piccadilly in the south and a new front door to Burlington Gardens, Cork Street and Bond Street,” explains Sir David Chipperfield. “You will be able to go from an exhibition in Burlington House to a lecture in Burlington Gardens through the vaults of the building. You will see the Cast Corridor and you will see where the RA Schools have been all this time. It is a small amount of architecture for a profound result.”

A resurgent RA

The RA is governed by the Royal Academicians, 80 artists and architects. “The proof of the Academy’s resurgence in the 21st century is that among our Academicians we have world-class painters, sculptors, printmakers and architects,” says RA President Christopher Le Brun. “For the first time, our visitors will be able to see more of their work in dedicated changing displays of art and architecture, past and present, for free.”

The inaugural exhibition in the new Gabrielle Jungels-Winkler Galleries in Burlington Gardens, LANDSCAPE, will showcase the work of Royal Academician Tacita Dean, exploring the genre of landscape in its broadest sense. This will run to 12 August.

The new Royal Academy Collection Gallery will display works belonging to the RA, including the Taddei Tondo by Michelangelo and the almost full-size 16th-century copy of Leonardo da Vinci’s The Last Supper, along with paintings by Reynolds, Kauffman, Thornhill, Constable, Gainsborough and Turner.

Summer Exhibition

The RA’s Summer Exhibition also marks its 250th anniversary this year. The theme of this year’s event, running from 12 June to 19 August and coordinated by Royal Academician Grayson Perry, will be ‘Art Made Now’. Around 1,200 works, in a range of media and from amateurs, emerging artists and well-known professionals, will go on display, with most available for sale. Staged to coincide with the Summer Exhibition will be The Great Spectacle: 250 Years of the Summer Exhibition, which will tell the story of the annual show and feature highlights from the past two-and-a-half centuries.

The Summer Exhibition is the world’s largest open-submission contemporary art show and has taken place every year since 1769. A significant proportion of funds raised go towards financing post-graduate students at the RA Schools, which offers the only three-year study programme of its kind in Europe.

For further information visit www.royalacademy.org.uk/ra250 www.royalacademy.org.uk/exhibition/summer-exhibition-2018

Rathbones is a Corporate Member of the Royal Academy of Arts.
Giampietrino’s 16th-century copy of Leonardo da Vinci’s The Last Supper is prepared for the move back to the Royal Academy after 25 years on loan to Magdalen College, Oxford. The newly redeveloped Royal Academy site provides more space to display works from its collections.
Taking the next step
If you want to invest with us, we'd like to speak to you

Call: 020 7399 0000
Visit: rathbones.com
Email: enquiries@rathbones.com

Important information

This document is not intended as an offer or solicitation for the purchase or sale of any financial instrument by Rathbone Investment Management International Limited. The information and opinions expressed herein are considered valid at publication, but are subject to change without notice and their accuracy and completeness cannot be guaranteed. No part of this document may be reproduced in any manner without prior permission. Unless otherwise stated, the information in this document was valid at May 2018.

Rathbones, Rathbone Unitised Portfolio Service and Rathbone Greenbank Investments are trading names of Rathbone Investment Management Limited, which is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered office: Port of Liverpool Building, Pier Head, Liverpool L3 1NW. Registered in England No. 01448919. Financial planning advice is provided by Rathbone Financial Planning (RFP) which is a part of Rathbone Investment Management Ltd.

Rathbone Unit Trust Management Limited is authorised and regulated by the Financial Conduct Authority and is a member of the Investment Association. Registered office: 8 Finsbury Circus, London EC2M 7AZ. Registered in England No. 02376568.

Trust, tax and company administration services are supplied by trust companies in the Rathbone Group. Provision of legal services is provided by Rathbone Trust Legal Services Limited, a wholly owned subsidiary of Rathbone Trust Company Limited. Rathbone Trust Legal Services Limited is authorised and regulated by the Solicitors Regulation Authority under No.636409. Registered office: 8 Finsbury Circus, London EC2M 7AZ. Registered in England No. 01688454.

The above companies are wholly owned subsidiaries of Rathbone Brothers Plc. Head office: 8 Finsbury Circus, London EC2M 7AZ.

Rathbone Brothers Plc is independently owned, is the sole shareholder in each of its subsidiary businesses and is listed on the London Stock Exchange. ‘Independent’ and ‘independence’ refer to the basis of Rathbones’ ownership as a corporate entity, and not to our use of non-life packaged products for clients of our advisory or non-discretionary investment management.

Rathbone Investment Management International is the Registered Business Name of Rathbone Investment Management International Limited which is regulated by the Jersey Financial Services Commission. Registered office: 26 Esplanade, St. Helier, Jersey JE1 2RB. Company Registration No. 50503. Rathbone Investment Management International Limited is not authorised or regulated by the Prudential Regulation Authority or the Financial Conduct Authority in the UK. Rathbone Investment Management International Limited is not subject to the provisions of the UK Financial Services and Markets Act 2000 and the Financial Services Act 2012; and, investors entering into investment agreements with Rathbone Investment Management International Limited will not have the protections afforded by those Acts or the rules and regulations made under them, including the UK Financial Services Compensation Scheme.

© 2018 Rathbone Brothers Plc.

The value of investments and income arising from them may fall as well as rise and you might get back less than you originally invested.