DIGITISING TREASURY TECH
How robotics, data analytics and blockchain are shaping treasury

ON THE RADAR FOR 2020
Libor transition, international trade and sustainable finance

PRACTISING TOUGH LOVE
Why you should avoid being too accommodating in the workplace

The Treasurer

THE MAGAZINE OF THE ASSOCIATION OF CORPORATE TREASURERS ◆ DECEMBER 2019/JANUARY 2020

INTERVIEW

STUART WRAY
RBS head of implementation future finance on data empowerment

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INNOVATION IS HERE

How technological advances are affecting finance professionals

CELEBRATING 40 YEARS OF ENGAGING TREASURERS

EDITOR'S LETTER

As I write this, 2019 is drawing to a close and the business world is showing signs of moving into its end-of-year wrap-up phase. Many of us will already be actively into our pre-holiday workload, mentally reviewing what we've achieved this year and tentatively weighing up all we must address in 2020.

At The Association of Corporate Treasurers' (ACT's) Annual Dinner in November, His Royal Highness The Prince of Wales, communicating via video, tabled as a matter of priority an agenda item for these kinds of reflections: namely, climate change and the role sustainable finance can play in heading off environmental catastrophe.

In a speech recorded at Birkhall in Scotland and broadcast at the dinner, His Royal Highness took the opportunity to address the greatest threat faced by humankind – climate change – and to set out the three steps he believes corporate treasurers could take to address this challenge. He advocated, firstly, that treasurers ensure they understand the sustainability factors affecting corporates and stay up to date on how financial markets and lenders are adapting and innovating. Secondly, that they consider debt providers who share their organisations' perspectives and commitment to sustainability. And thirdly, that they actively engage with debt providers and credit rating agencies to demonstrate that level of commitment. "Without truly decisive and urgent action, there will be no person, nation or company that will not be affected," he said.

Finance and investment are a crucial part of the armoury that can be deployed against climate change and in promotion of decarbonisation, he said. "In the simplest of terms, capital urgently needs to be allocated away from activities that generate negative impacts such as global warming and loss of biodiversity, and towards those that will have a positive impact on one or more of the UN's Sustainable Development Goals."

All of this, he went on, actually adds up to an investment opportunity. "The Business & Sustainable Development Commission estimates that achieving the UN's goals could open up $12 trillion of market opportunity – not a number to be ignored."

The dinner marks the drawing to a close of the ACT's 40th anniversary year. We celebrate some of the highlights from this year on page 8 and provide an overview of key presentations from this year's ACT Forum on page 10.

In this issue, we also take a close look at the technology evolution taking place around us – at the treasury technology already reaching the front lines in our digital treasury feature on page 20, and on the technological megatrends shaping the wider world on page 24. In our profile on page 16, we talk to Stuart Wray, head of implementation future finance at RBS, about his work incubating future technology and advocating for technology engagement among tomorrow's finance professionals.

I hope you enjoy this issue.

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JOHN BINNS is a partner in the business crime and corporate regulatory department of BCL Solicitors. He has represented suspects, defendants and witnesses in cases invoking allegations of bribery and corruption, fraud, insider trading, market abuse, tax evasion and more. His article is on **page 30**

PHIL QUADE is the chief information security officer at cybersecurity company Fortinet; he has more than three decades of experience in cyber intelligence. He has worked with governments and across industry sectors as well as at the US National Security Agency. His article can be found on **page 38**

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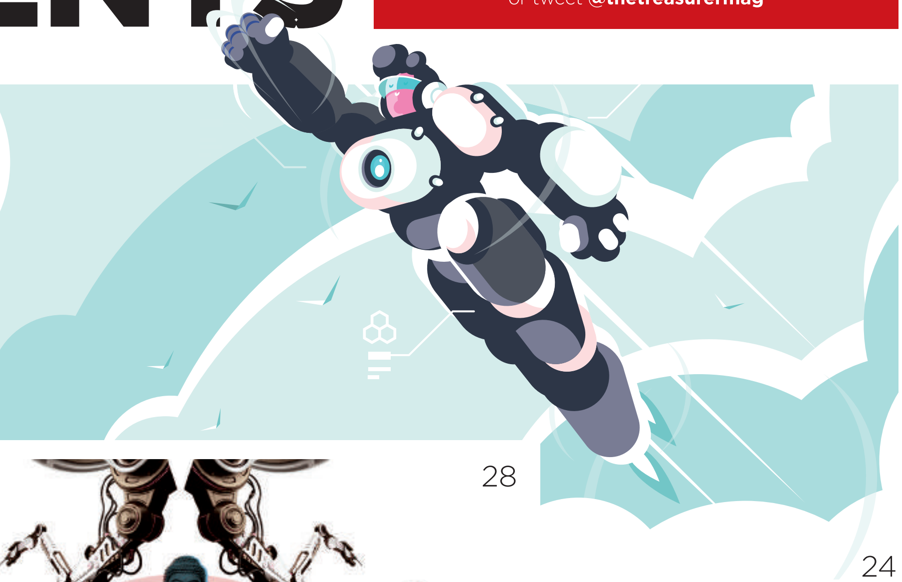

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Stuart Wray, head of implementation future finance, at RBS

2019 IN REVIEW

CYBER, PAYMENTS TECHNOLOGY, BREXIT AND GEOPOLITICAL RIPPLES – THE BUSINESS AND ECONOMIC WORLDS HAVE PROVIDED TREASURERS WITH PLENTY OF TALKING POINTS. MATT PACKER ELABORATES

The past year has seen ups and downs, and practical issues aplenty for treasurers: geopolitical ripples and threats, technological innovation and disruption, plus regulatory and economic trends. Here, we look at five key areas – all of them dynamic and that have by no means reached their conclusion.

Cybersecurity

Large-scale cyberattacks on corporate infrastructures have remained a persistent bug in 2019, with US firm Quest Diagnostics suffering a data breach that exposed the medical and financial details of 11.9 million people; Microsoft's defences crumbling in the face of hackers who hijacked its Visual Studio games development tool; and instant-messaging behemoth WhatsApp being infected by spyware with a potential reach of 1.5 billion users (although only a fraction were ultimately affected). But they were as nothing compared to Huawei's hair-raising claim in October that it grapples with a staggering one million cyberattacks on various parts of its global operations *every single day*.

Experts, however, are watching corporates' backs. In the autumn, GCHQ arm the National Cyber Security Centre (NCSC) announced in its third annual review that it had played a key role in fending off more than 650 large-scale attacks over the 12 months from 1 September 2018, involving 900 UK organisations, public and private. That brought the total number of attacks the NCSC had quashed since its 2016 formation to almost 1,800. In November, the UK government launched a consultation to better understand the barriers that corporates face as they strive to improve their cybersecurity. And probably not a moment too soon: according to recent research from cloud security provider Centrify, 77% of UK workers have never received any cyber skills training from their employers.

Payments and open banking

If there were any worries this year about the level of corporate interest in open banking, they were allayed by a July report from payments solutions provider Nuapay. In a survey of the UK retail industry – including supermarkets, airlines and players in the subscription economy – the firm found that, following a slow start for open banking since the 2017 launch of Payment Services Directive 2 (PSD2), 97% of merchants expected to roll out relevant initiatives over the following year. Of the businesses that have planned for implementation, 86% were looking to open banking as a source of innovation that would help them improve the customer experience.

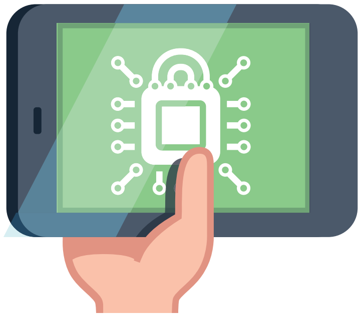
In an October policy statement, the Financial Conduct Authority announced that use of the European payments authentication system eIDAS (short for electronic identification, authentication and trust services) would remain within the regulator's official standards, following the UK's exit from the EU. Meanwhile, in response to delays faced by more than half of EU member states, the European Banking Authority (EBA) pushed back its Strong Customer Authentication enforcement deadline to December 2020, giving banks

and payment service providers more time to migrate to the protocol mandated in PSD2. The EBA also set out the actions it expects stakeholders to take within the revised time frame.

Sanctions and trade risk

There is no starker illustration of the business community's increasingly tense climate over sanctions this year than the running total of penalties enforced by the US Office of Foreign Assets Control (OFAC), as found on the agency's website. Up to 1 October, OFAC had hit 18 organisations with fines totalling \$1.3bn – already a record year by then, with two months left to go. The most recent corporate to feel the organisation's wrath was General Electric, with other household-brand non-financials such as Stanley Black & Decker, Hotelbeds, Expedia and Western Union joining it in the 2019 sin bin. In late October, a survey report from know your customer solutions provider Accuity acknowledged the seriousness of OFAC's record, noting that 80% of global cargo companies cite reputational risk as the key driver of their sanctions and export risk compliance schemes. Meanwhile, 72% find the changing regulatory paradigms in the regions where they work a constant challenge.

As we entered November, the effects of US hawkishness over sanctions triggered fireworks on the Spanish political scene, with People's Party leader Pablo Casado attacking the government for its support of the regime in Venezuela – a policy he said that puts Spain at risk of US retaliation through sanctions: action that President Trump's aides have already pushed him to take. But other events showed that Trump isn't the only sheriff in town, with the World Trade Organization giving China the go-ahead to slap \$3.6bn of sanctions on US goods over American anti-dumping rules.



Interest rate risk

For a snapshot of where the corporate world is at on this front, look no further than the latest *Global Financial Stability Report* from the International Monetary Fund (IMF). In a 16 October press briefing to unveil the report's key findings, IMF capital markets director Tobias Adrian noted that, against a backdrop of flagging business sentiment, weakening economic activity and intensifying downside risks, many central banks – covering around 70% of world economies – have adopted an easier stance on monetary policy.

Investors, he said, have interpreted those central bank actions as a turning point in the monetary policy cycle. That shift "has been accompanied by a sharp decline in long-term yields; in some major economies, interest rates are deeply negative". Remarkably, Adrian noted, "the amount of government and corporate bonds with negative yields has increased to about \$15 trillion. Moreover, markets expect about one-fifth of government bonds will have negative yields for at least three years."

In addition, corporates are taking on more debt – but their ability to service it is weakening. "In the event of a material economic slowdown," Adrian warned, "the prospects would be sobering. Debt owed by firms unable to cover interest expenses with earnings – which we refer to as corporate debt at risk – could rise to \$19 trillion in a scenario half as severe as the global financial crisis. That is almost 40% of total corporate debt in the eight economies that we studied, which include the US, Japan, China and some European countries."

There may, to quote a popular song, be trouble ahead...

Brexit

With the campaign for a UK snap election on 12 December having only just kicked off at the time of writing, the precise nature of the Brexit we will end up with – if any – remains very much up in the air. Will the election go down as the decisive tiebreaker it is intended to be? Who knows? But that doesn't mean we can't take the measure of corporate sentiment about the most significant watershed the EU has faced since its inception.

In October, members of Germany's Stiftung Familienunternehmen (Foundation for Family Businesses) – including some of the nation's most successful firms – said in a poll that it wants a wave of business-friendly government policies to offset Brexit's impacts. Among the initiatives it is calling for are a simpler tax system, enhanced digital infrastructure and a pruning of red tape. Meanwhile, a study of German mid-caps by development bank KFW discovered that 15% of them, particularly professional services firms, could actually benefit from Brexit by helping affected companies reorganise.

At a broader level, HSBC's latest Navigator survey – published in November – struck an optimistic note, reporting that 79% of European companies remain confident that they will grow their sales over the next 12 months, regardless of Brexit. However, it pointed out, the continent has the lowest proportion of firms (30%) expecting growth of more than 10%.

Matt Packer is a journalist specialising in business, finance and leadership


ACT
40 YEARS
OF ENGAGING
TREASURERS


圆桌讨论 Panel Discussion
合作共赢，协作共生，如何利用科技优势优化财资管理方案
Cooperation and Coordination, How to Advance Treasury Management with Technology
Caroline Stockmann, Chief Executive, Association of Corporate Treasurers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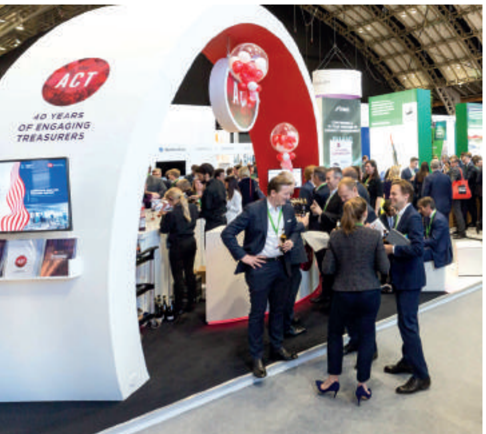
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ACT
Our mission:
"To embed the highest standards of professionalism and integrity in the treasury world, and act as its leading advocate."

STRENGTH TO STRENGTH

THE ACT'S ANNIVERSARY YEAR WAS ONE OF ACHIEVEMENT, AS CAROLINE STOCKMANN NOTES

Our 40th anniversary year has been an amazing 12 months – with the development of a totally revamped and very strategically focused master's level qualification, more volunteers from our membership than ever (almost 10%), a gender-balanced Council (our governing body – elected by our members) for the first time. In addition to that, we have had two further seminars run to support women's empowerment for HH Sheikha Shamma, the United Arab Emirate president's granddaughter, a growth of 32% year-on-year in our Middle East Treasury Summit in terms of attendees, and another award from the Association Excellence Awards.

Our awarding body has gone from strength to strength, after moving to a new examination system, with very few issues in terms of user experience, our member renewal statistics are excellent and the feedback we have had in terms of the content provided at our events has been outstanding. We continue to ensure that we support our members as proactively as possible, and to do that our policy and technical team remains the heart of the organisation.

We strive to improve from year to year, and I feel at the end of this very special year that it is appropriate to focus on celebrating such a great set of achievements – none of which would be possible without our fantastic members who make The Association of Corporate Treasurers (ACT) the 'personal' and friendly association you tell us it is.

After four decades of working alongside our members, through thick and thin, our mission remains constant: to embed the highest standards of professionalism and integrity in the treasury world, and act as its leading advocate. And how would we describe this past year? Certainly not one for the faint-hearted! Wherever our members work in the world, and whoever they work for, most would agree there is not enough time in the day to navigate all the necessary technical and regulatory developments. So we continue to support and take the pressure off as much as we can through our events, webinars, podcasts, online and print content, as well as the many other interactions we offer. But we are always looking to do more and better, and via our research hope to ensure that we respond in an agile manner as needs change.

As we look to the future, and the next 40 years, I would like to thank all of you and ask for your continued support and participation. It is with the input from treasurers and finance professionals around the world that we will ensure that the ACT continues to lead the way in treasury excellence. For 2020, we will be using a new strapline: Treasury Excellence as Standard – a constant reminder of the high professional standards we all share and our belief that these standards should be the norm.

WHERE TREASURY MINDS MEET

LIBOR, THE GLOBAL ECONOMY AND DIGITAL TREASURY WERE ON THE AGENDA AT THE ACT'S TREASURY FORUM. MICHELLE PERRY WAS THERE TO RECORD THE HIGHLIGHTS

Opening the fifth annual Association of Corporate Treasurers (ACT) Treasury Forum, Janet Henry, global chief economist at HSBC, said policymakers were attempting to stabilise the global economy and limit a widespread slowdown.

"Since the beginning of 2018, there has been a synchronised slowdown across all of the major regions. Our forecast for 2020 is of a further modest slowdown. The growth rate that we have for 2020 globally is 2.5%," she said.

This particular slowdown is primarily an industrial one. Investment spending and exports are considerably weaker than in previous recent slowdowns, while consumer spending has been a little bit more resilient, said Henry. It is also important to note that the slowdown cannot be solely attributed to any single factor, such as the China/US trade tensions, but is set to continue to weigh on global growth.

Meanwhile, evidence from recent weeks suggests that some elements with the global economy, such as electronics, particularly semiconductors, are now re-entering expansionary territory. The slump in global car demand has also faded. However, global demand for capital goods will stay weak, as companies don't invest when there's a high degree of political uncertainty.

"It is a slowing economic backdrop, but we're not forecasting a US or global recession. Central banks are still being overburdened and continue to provide monetary stimulus, which ultimately we may pay the price for if financial stability risks heighten. And the risk is that the wealth inequality implications of rising asset prices means that we won't see an end to the rise in populism, and demand for isolationism and protectionist policies," Henry said.

The rise of the ESG bond

ESG has become a significant force in European capital markets – and the impact has become more noticeable among UK investors and borrowers than anywhere else over the past 12 months, Ben Broad, MD, corporate debt capital markets at HSBC, told delegates.

Broad noted the huge growth in the market, with $266bn of

ESG bonds issued globally in 2019 (year to date), up 63% in volume terms and the number of deals on full-year 2018 levels. ESG accounts for 9% of the euro corporate bond market, a rise of 180% on last year.

Jane Pilcher, group treasurer at Anglian Water Group, spoke of her experience of issuing green bonds, explaining that it made sense for Anglian to issue green bonds, since the company was already measuring, reporting on and applying green metrics, and ESG was a key business priority. Significantly, issuing green bonds has had a positive effect on reputation.

Scot Morton, group treasurer at the Co-operative Group, an issuer of a sustainability bond, said the Co-operative's journey had been more of an internal one, bringing together the company's ethics department with treasury and finance teams to initially compile a sustainability bond framework, under which treasury was able to subsequently issue a bond that focused on the Co-op's work on supporting Fairtrade.

There is an upside in terms of costs. Broad said companies were looking at a discount in the range of around 0-5bps for ESG bonds. Pilcher said she hoped in time green bonds would become the standard, however. "What I would hope, over time, is that green bonds won't necessarily be cheaper, but non-green bonds more expensive. I think we just have to be really careful that we don't kill the market before it's really started", she said.

Brexit, trade and the changing environment

In a session looking at the impact on businesses from the ongoing Brexit debate, Stephen Powell, partner, financing, at law firm Slaughter and May, urged treasurers not to ditch contingency planning just yet.

"None of that contingency work should be thrown away, even if you're assuming a Conservative victory. I would urge you to focus on that contingency planning again and keep it safe in case it's needed for the end of the transition period on 31 December next year," Powell said.

David Ranson, group treasurer at Pentland Brands, a UK private company operating in the sports, outdoor and fashion markets, said that when the government issued a temporary set of UK tariffs in March, he found that some of his company products attracted less duty. But when the March Brexit deadline changed to 31 October, the list of tariffs was then "substantially revised". On this basis, James Winterton, associate director, policy and technical at the ACT, urged treasurers to retest their assumptions.

Sibel Sirmagul, regional head of product and propositions, Europe at HSBC, said the customs delays were a major concern. Powell concurred. "For a lot of people, it's the paperwork that's going to be really difficult. You'll need more working capital to fund these delays."

Ranson agreed, but said that if the costs of the customs checks rose considerably, Pentland would have to review its export model for some lower-value items.

On a brighter note, Sirmagul said that the technology available and developing around smart contracts and digital trade would

reduce time frames and overcome customs delays – even if the UK ends up with an Irish Sea border.

Treasury 4.0

Digital tools are becoming a major facilitator for treasurers. In a session that explored machine learning, artificial intelligence and digitisation, a panel discussion sifted technological realities from possibilities.

James Kelly, group treasurer at Pearson, explained how his team now uses a cash-forecasting solution that has allowed them to analyse and forecast in a way that was not previously possible for them. "One of the big advances we see is the scalability of the systems, which means rollout can be quite rapid," he said.

Treasurers heard that, although there were costs with deploying such systems, there were compensating efficiency and interest savings, and that these tools were a "huge facilitator to help understand and manage risks". Kelly also noted that the work on fuller automation to date had lessened borrowing costs and helped contribute to improvements in the outlook of Pearson's credit ratings by reducing operational cash balances.

The Libor transition

As we now know, Libor – the measure of wholesale bank funding costs – has come to be used as something completely divorced from its intention, Richard Fox, head of markets policy at the Financial Conduct Authority, told treasurers in the closing session. The plan is to phase out Libor and replace it with the sterling overnight index average (SONIA), the sterling market's preferred alternative rate, but because so many contracts around the world are still based on Libor, this is proving a complex task.

Fox said banks were worried about the use of expert judgement when submitting to the Libor rate, as opposed to actual transactions, and regulators were worried about having hundreds of trillions of pounds worth of contracts

built on such estimates, rather than the actual transactions, which is why regulators are proposing alternatives.

A total of $400 trillion is the estimated notional value of the contract on which Libor sets the interest rate. The vast majority of that total are derivatives contracts, but bonds and loans are also exposed. More worryingly for treasurers, Fox said, was that Libor was also used in commercial agreements.

"So, the penalty clauses for failure to deliver goods or services will often be set by Libor. That's a really good example because this has no relationship to wholesale bank funding, and we can't be sure how many of these contracts exist," Fox said.

However, he said that progress on the transition to SONIA was going well. Despite progress, however, different jurisdictions were moving at different speeds – and that matters.

In the eurozone, regulators are stabilising the Euro Interbank Offered Rate and will retain it for longer than is currently envisaged the position for Libor.

"Different jurisdictions are moving at different speeds, but that isn't because we disagree about the ultimate destination," Fox said.

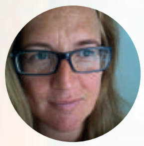
The regulator concluded with the point that if treasurers can't move away from Libor entirely, it is vital to ensure a fallback that means the contract at least works at the point where Libor ends. He urged treasurers to review contracts to look at fallbacks as a first step to ensure a "safety belt if the car crashes".

Investment spending and exports are considerably weaker than in previous recent slowdowns

ESG has become a significant force in European capital markets

The plan is to phase out Libor and replace it with the sterling overnight index average

Michelle Perry is a business and finance journalist and editor



LEADING EDGE

DEMAND FOR TREASURY AND FINANCIAL TECHNOLOGY WAS EVERYWHERE AT THE ACT'S MIDDLE EAST TREASURY SUMMIT, AS PETER MATZA REPORTS

Delegates at the ACT's Middle East Treasury Summit were keenly focused on technological solutions

This year, The Association of Corporate Treasurers (ACT) Middle East Treasury Summit proved an enormous hit with everyone who came through the doors of the Madinat Jumeirah in Dubai. And come through they did with our highest-ever number of registrations and a record-breaking attendance of over 600. This is now the world's biggest treasury conference outside the UK or US, and the third-largest overall, delivered by a professional body.

The theme of the event could be described as technology 2.0. When the ACT began to run events in the region 11 years ago, the understanding and use of treasury and financial technology was limited to a small handful of corporates and sectors. Some of the local and regional banks trailed their international competitors in providing e-services for retail customers and business ones. But all that has changed.

Consumers in the region benefit from fierce competition across world-class mobile products for shopping, travel, entertainment and government services. What the presentations, panel discussions and workshops during the conference made clear, however, is that the demand for technology-driven treasury management systems, FX dealing platforms, global cash and liquidity management and working capital, and trade finance products is substantial and increasing rapidly.

In addition, some regional treasurers are making use of even more advanced technologies, becoming early adopters of blockchain/distributed ledger technology systems for trade finance and supply chain management and machine-learning for secure payments processing. Corporates from sectors such as online fashion retailing are using data scientists to make demands on their logistics providers for greater transparency in fulfilment for retail customers. For example, customers change delivery addresses (such as from office to residential) for roughly two-thirds of online orders for one clothing retailer, so recognising those demands and the customers' willingness to pay for enhanced service is critical and a key service differentiator.

The nuts and bolts of treasury were far from being ignored, however, especially for small- and medium-sized corporates looking to scale up their operations regionally. The issues of cross-border FX, trapped cash, overseas equity and M&A activity were key topics for discussion.

The rise of treasury to a strategic role in organisations was equally recognised with keen interest in the ACT's latest edition of our research, *The Business of Treasury 2019* (treasurers.org/thetreasurer/business-of-treasury-2019), and a very well-attended panel discussion on women in business leadership. The growing importance of ESG in business was highlighted, with green finance being a focus, but recognising the full impact of social and governance concerns for investors, rating agencies and other stakeholders.

The beating heart of any ACT conference, however, remains the enthusiasm and willingness of all delegates, but most especially treasurers to share experiences, to help others with their personal growth and development, and to offer a consistent voice to regulators and legislators on developing the regional real economy. Delegates who have supported the growth of the ACT Middle East to a network of more than 4,800 individuals were thrilled to see the profession in such rude good health. One or two confessed to having had doubts that the growth would be so swift. There's clearly more to do to raise the profile of treasury further, but there's no doubting the success so far!

Peter Matza is speakers' chair for the ACT

UNLEASHING THE POWER OF THE MARKET ON CLIMATE CHANGE

TIME TO USE ECONOMIC AND REGULATORY TOOLS TO DRIVE MORE SUSTAINABLE CONSUMPTION

The science is in. Climate change is the single-biggest risk to mankind and to animal and plant life. The only things left to argue about are the scale of the damage to come and the speed at which it will happen. But given that this is an experiment we can only do once, all those issues fall into the category of semantics. In our efforts to correct the course, we need to get it right the first time.

Major parts of the Western world are making progress. The urgency to act is growing as more and more people become aware of the dangers ahead. Many voters, recognising the seriousness of the issues, now want their elected representatives to act.

Mustering the will is a necessary precondition. What comes next is much harder – finding a way.

While many countries are shifting towards cleaner energy and increased recycling, the consensus is that we could do more to lower the risks ahead.

At its core, the climate question is an economic one. Can we continue to raise human living standards without jeopardising the planet? Many key green activist groups claim that we cannot. They argue that the only way to avert future climate-related catastrophes is for humans to consume less. This is misguided for two reasons.

First, it asks too much of the billions of people in the world that still live hand-to-mouth each day. For them, their justified preoccupation with near-term survival far outweighs any consideration about the climate in the long run.

IKON IMAGES

Second, it simply will not work. Even though there are many people in the well-off parts of the world that would not face existential threats by accepting lower standards of living, it is unrealistic to expect them to do so on a sustained basis.

For a solution to be realistic, it must take human nature as it is. Any sustainable solution must, therefore, go hand in hand with higher living standards, otherwise people will not go along with it. If that happens, consumers and producers alike will be incentivised to act both in their own self-interest and in a way that is good for the planet, simultaneously.

There is nothing radical about this idea. It simply asks the species to do what it has always done – better utilise scarce resources.

The economic problem is a simple one: infinite demand but finite supply. Yes, some economic gains come from discovering new resources. But the belief that this is the only means of economic growth underpins the false logic that humans must cut consumption in order to avert geological disaster.

Time and again human innovation has proven these Malthusian arguments wrong. It can do so once again.

This is where the market comes in. Whether it is the price of goods or stock valuation of companies, our economic decisions to buy, sell, invest and save are guided by the price mechanism. Markets are dedicated to the task of price discovery.

When the marketplace for goods works – and it mostly does – competition raises the quality of goods relative to their price. This is what drives gains in living standards. This logic similarly applies to financial markets. Companies with the highest valuations are those that, generally speaking, generate the biggest consumer surpluses – think Apple, Amazon and Tesla.

With the help of clever and well-designed economic policies, including well-targeted regulations and, perhaps, radical tax changes, we should be able to encourage even more investment in clean energy and transport while directing consumption towards more environmentally friendly products and services.

If we want to get real about tackling climate change, we need to elicit the power of the market. The price of failure would be too high.

Kallum Pickering is senior economist at Berenberg Bank

CAREER PATH

2018–present
Head of implementation future finance, RBS

2017–2018
Head of finance – planning and budgeting cloud, RBS

2015–2017
Head of business intelligence – revenue, RBS

2013–2015
Senior manager – commercial business partner, Alliance Trust

2010–2013
Management accountant, Alliance Trust

2008–2010
Management accountant, Scottish Resources Group

2007–2008
Management accountant, Kwik Fit

2004–2007
Senior accountant, EQ Chartered Accountants

"YOU'RE EMPOWERED BY DATA; YOU'RE EMPOWERED BY INFORMATION"

STUART WRAY

An interest in technology and all its possibilities has enabled Stuart Wray, head of implementation future finance at RBS, to carve out a niche and advocate for an enhanced role for finance

WORDS: LIZ LOXTON / PHOTOGRAPHY: LOUISE HAYWOOD-SCHIEFER

Stuart Wray, head of implementation future finance at RBS, wasn't always as embedded in future tech as he is now. As a dual-qualified chartered accountant and treasurer, he established his finance credentials across a range of industries. But an early fascination for technology and a willingness to address broad-based finance implementations have brought him industry awards and interesting roles.

Having begun his career as a chartered accountant in practice in Dundee, Scotland, he got his first taste of treasury at Scottish Resources Group, a mining company, where his FD encouraged him to study for the AMCT as a route to fully understanding the core disciplines of cash management (a highly challenging facet of treasury within mining), as well as FX management around the company's import activities.

From Scottish Resources, Wray moved into the financial services sector, joining Alliance Trust. As a closed-ended investment fund with an underlying asset manager and bank, Alliance Trust gave Wray plentiful opportunity to embed himself still further in the finance and treasury worlds.

One of his first endeavours was to lead the programme, upgrading the general ledger, introducing planning and visualisation software, and overseeing an Oracle ERP upgrade that introduced a greater degree of automation. "The whole idea was: could we use technology to improve the finance processes and improve our internal customers' perspective of finance?"

The initiative represented Wray's first proper technology transformation with major changes to the finance function. And it attracted attention, netting Wray and his colleagues the Scottish Finance Team of the Year Award from business and finance website Business Insider, for the considerable degree of technology transformation brought in against a very tight timescale.

That programme posed interesting technological challenges, and it was at this point that his interest in technology and financial systems was well and truly sparked. Wray credits his boss at the time, the CFO of Alliance Trust, as an important advocate and backer: "He had a lot of faith in my ability and I think it was quite critical to my success at that stage of my career."

As his career progressed with Alliance Trust against a backdrop of considerably upscaled regulatory reporting, Wray was responsible for implementing the consolidated regulatory reporting. This was for Alliance Trust's bank alongside changes in capital and liquidity reporting to ensure compliance with the Capital Requirements Directive IV.

Alliance Trust provided Wray with a wide-ranging experience from running the day-to-day operation of the bank's cash positions, leading the outsourcing of the finance back office, leading the year end and working as finance lead on a variety of strategic initiatives, including an acquisition in the group.

BANKSIDE

Having developed his technological and treasury skills against a highly testing regulatory backdrop, Wray was looking for new opportunities, when an opening at RBS came up.

"My first job at RBS was head of business intelligence for products in personal banking. It is the biggest franchise of the bank and I ran a team of up to 17," he says. "Our job was to look after the revenue forecasting, budgeting and stress testing for personal banking. Based on what I'd learnt previously, I could see there was an opportunity with technology here."

Wray and his team implemented an Oracle cloud budgeting and planning tool, which they introduced across the bank's personal banking products, bringing in faster and more effective modelling. It was an experience that yielded great results by improving the control and speed at which forecasts could be prepared. "One of the great things about learning revenue is that you need to understand how a bank works and you need to understand all the components within the bank – and you get exposed to treasury aspects of that."

Having completed the project for the personal banking division, Wray wrote a proposal for rolling this approach out across the whole bank. He then moved to be head of finance for planning and budgeting cloud, and took charge of a 30-member team responsible for implementing the planning system. This large-scale project delivered 30 new models across currencies, enhancing control and removing more than 1,000 spreadsheets. More than 400 new users were onboarded globally, including the group finance team, with colleagues from tax and treasury disciplines working with the system also. Wray won his second significant award, an Oracle Change Agents of Finance Award, and spoke on the change programme at an Oracle Executive Leaders Circle in San Francisco in 2018.

This success proved to be a springboard into his current role at RBS, as head of implementation of future finance, focused on implementing new emerging technologies across the bank's 1,900 finance staff, with a particular focus on robotics, natural language generation and visualisation. "As a finance function, we need to innovate. One of the things about my job is to really look at the technology that is further out and see if it can transform how we do things today. Could I take this technology and work with a small team to put it into production?"

INCUBATION

Wray oversees the work of three incubators, which effectively operate as start-ups within RBS Finance. Each has its own team working respectively on robotics, visualisation and natural language generation.

To put it simply, robots record stable, repeatable sequences and then replicate them, performing them faster and with greater control than humans. It is an area with a great deal of applicability to finance and particularly banking and treasury. "My job is ultimately to bring robotics across all areas of finance," says Wray. "We're at the point where we're almost ready to scale robotics processing

WHAT I VALUE MOST ABOUT THE ACT IS…

…the universal transferability of treasury skills that it has taught me, opening up a world of opportunities for career development in partnership with my finance skills.

WHAT I LIKE BEST ABOUT TREASURY IS...

...the importance of cash management. My skills in treasury were developed in this area and I feel it was a critical foundation understanding that has underpinned my career – now and in the future.

THE WORK CHALLENGE I WOULD MOST LIKE TO FIX IS...

...to bring AI into finance and treasury, upskilling my colleagues and ensuring that this technology is used in a safe and controlled way.

and proliferate them across all of finance, including treasury. It's an aspect of technology that is going to be very helpful in areas such as running various types of finance/treasury processes. Most banks are doing this today. We want to evolve and we want to try out the technology in a safe and controlled manner, and then scale it up."

Visualisation is likewise a rich area for treasurers, with the potential to short-circuit long data analysis and report preparation. "Traditionally, treasurers and finance professionals will prepare reports using PowerPoint or Excel," he continues. "But visualisation tools can take that data, bring it together and display it in such a way that it can be queried and will yield more insight that would otherwise be hidden in the data. We've had these tools to an extent, but the new-generation visualisation techniques available mean that we will be able to display information in such a fashion that you can get a lot more out of it. You reveal the insight that's hidden in the data and you access that insight much more quickly."

LANGUAGE FROM NUMBERS

Wray's third area of focus, natural language generation, is an artificial intelligence (AI) type of technology that effectively takes numbers and turns them into text. Instead of having an analyst write a commentary around a set of numbers, a generated script will create that written analysis, meaning reports that may have taken 90 minutes to write in the past will only take seconds or minutes. "So, say I was writing a regular report for an internal stakeholder," Wray explains. "Instead of having to manually type it, natural language technology will read the numbers and write a summary of what's going on drawing on cues that we programme into the script."

The real potential, he suggests, lies in bringing these technologies together: robotics to gather the data, assembling a report using advanced and speedy visualisation, and adding commentary via natural language generation. "If you scale that across a large finance function you can see that the opportunities to get to some great insights for your commercial teams and for your directors is enhanced because they can see the information much faster, with a much deeper and richer underlying analysis."

At RBS, finance professionals can join the incubators to gain insights into the technology development and help build out the new technology that will one day feature in their daily working lives. The incubator teams themselves are kept purposely small. "If you keep them small, that's a really big benefit, because you get people very familiar with the technology."

Wray's team is also exploring AI, in particular the subfield of machine learning, and how this can be applied to forecasts. "It's a bit earlier in concept, but it is something that could revolutionise what we do from a forecasting point of view," he says.

BE CURIOUS

One of Wray's key preoccupations is ensuring that the current generation of finance professionals are steeped in technology. RBS is prototyping a PhD sponsorship to create a pipeline of qualified individuals in mathematics and in data science. "This allows us to explore the future development of skills for tomorrow's finance function."

And he believes in individuals furthering their own learning on this front on the job: "I think treasurers and finance professionals need to be much more tech-savvy going forward. I really feel that you need to get exposure to technology and build your familiarity with it. I think AI's influence will be positive. One of the great things about having all this is that it frees finance up to be much more value creation orientated, automating basic tasks. That's going to mean we can be partners with our internal stakeholder much more. We will have a lot more time to spend helping the business understand the output of the technology, rather than spending our time writing reports. It provides an opportunity for finance to take its commercial acumen and be the copilot to all of finance and to the internal stakeholders because you're empowered by data. You're empowered by information."

Exposure to the incubators or to finance teams interrogating new technology or exploring treasury technology implementations in an enhanced way is absolutely essential he believes. "I would say to young professionals: you need to get involved. Be curious and get involved in technology projects, because it's a great opportunity that will give you a really diverse skill set. It was curiosity that got me into technology.

"My prediction is that in five years, things will have significantly changed in treasury and finance. Firms that are early adopters will see this sooner. As a function, we want to make sure that we're benefitting from this technology and not missing out on whatever opportunities it brings."

Liz Loxton is editor of *The Treasurer*

DIGITAL TREASURY

Data analytics, robotics and blockchain are becoming a reality for more treasurers. Welcome to the brave new world of digital treasury, where (almost) anything is possible. Lesley Meall investigates

The potential is enormous. The possibilities are endless. Digital technologies are reshaping the world in which we live and work – sometimes so rapidly and so radically that it can be challenging to keep up with what is possible before we can even start thinking about how these developments could benefit corporate treasury.

Treasurers now sit at the heart of a digital ecosystem that is already enabling some corporate treasuries to take smarter, more data-driven approaches to core processes and better support the commercial side of the business. As the digital ecosystem becomes more automated, connected and integrated, it will bring treasurers closer together with suppliers and service providers, customers and peers. The combined effects could be transformational.

Treasury professionals are already feeling the pull of this digital ecosystem. In The Association of Corporate Treasurers' (ACT's) *The Business of Treasury 2019* survey (treasurers.org/thetreasurer/business-of-treasury-2019), nearly 75% of treasurers said that their organisations were automating treasury functions.

"Technology has helped us eliminate low-value and inefficient processes that we had to run manually in the past and has allowed us to focus on more value-added processes, advising the business and getting more involved in the commercial side," says Royston Da Costa, assistant group treasurer at Ferguson plc, a multinational plumbing and heating products distributor. Da Costa, who has spent decades in the space where treasury and technology meet, says: "Technology has and will continue to play a huge part in the treasury environment."

Some emerging technologies have the potential to benefit treasury across traditional core areas and key functions (see box on page 23) and as its role expands, as long as they stock up on the fuel that is powering these technologies and the automation and improved decision-making they enable.

"Reliable, high-quality data is essential to the success of any treasury automation project," says Laura Worboyes, who has been involved in automating various aspects of treasury at MS Amlin Investment Management Ltd (part of global insurance group MS&AD), where she is head of investment operations. Given the significance of data, it is perhaps unsurprising that four in five of the treasurers the ACT surveyed expressed concerns about the quality of internal financial and business data.

DRIVEN BY DATA

Treasurers' concerns about data will grow. Digital technologies are becoming more interconnected; sharing and unlocking the potential of the associated data can enable treasurers to add value and make faster, smarter decisions – and they are under pressure to do so.

"Treasury functions are now tasked with building digital ecosystems where new technology can help solve old and new problems alike," says Sebastian di Paola, the partner in charge of PwC's global corporate treasury solutions practice. Treasurers tell PwC that they see most potential over the next two to three years in artificial intelligence (AI), data analytics and robotic process automation (RPA); although some treasurers have high hopes of blockchain, too.

Some emerging technologies have the potential to benefit treasury across traditional core areas

These technologies are becoming more accessible to treasurers (financially, practically and technically), as they enhance existing software and services, and power new ones – and treasurers are approaching them more proactively.

"Treasurers are not just engaged with technology, but advancing its use," says Da Costa. There seems to be more widespread use of high-level programming languages such as Python, and smart software tools such as Alteryx that allow treasurers to extract data from incumbent systems and enhance their functionality without doing any coding. Spreadsheets are no longer the only solution within the reach of treasurers with legacy systems that don't quite meet their needs. Worboyes says: "A lot of our automation has progressed through Alteryx for treasury processes.

"We are looking to automate more of what we currently do with spreadsheets, but we still have some manual workarounds and spreadsheets outside our systems, where they don't meet our bespoke requirements." Until recently, cash-flow forecasts were done using spreadsheets, because MS Amlin's treasury management system (TMS) couldn't output the data and views that it needs; now cash flow has been automated using a self-service data analytics platform, Alteryx, an AI-assisted system that makes data science techniques and analytics accessible (without coding). "We extract the data from our SunGard TMS and Alteryx processes it into the cash-flow reporting we need," says Worboyes.

London-based global education and learning company Pearson plc has also extended the capabilities of its TMS with an AI-enabled cash forecasting and working capital analytics tool, Cashforce. Integrating it with Pearson's

IKON IMAGES; ALAMY

CONTINUOUS IMPROVEMENT, AUTOMATION AND ROBOTICS

New technology needs to earn its place in treasury functions, as Laura Worboyes explains

As the pressure on budgets continues and expense management is a hot topic, a key tool in managing costs is continuous improvement. Continuous improvement can absolutely mean identifying processes that can be improved using automation solutions from analytics provider Alteryx or using RPA. It can, however, also mean making basic process improvements.

My team uses an approach that first identifies potential processes for improvement. This can often be an easy step, because simply asking the team which processes are painful and error-prone will flush out candidates for improvement. Once identified, process mapping can help to show where the problems are in a process. Each step in the map can be reviewed for opportunities to simplify, eliminate wasted effort, for example, producing reporting that is not fully used, improve key controls – eliminating over-checking and automate.

I believe rigorous analysis of a process should always be done with simplification and waste removal completed before any automation or robotics are used. If not, there is a risk of just automating a bad process, keeping control of weaknesses and limiting the efficiency.

Continuous improvement is a way of working, not a one-off exercise and, over time, will become embedded in the team culture.

systems has enabled treasury to more easily embrace and exploit emerging technologies, for example, by replacing manual data entry with RPA. Using smart analytics has improved treasury insights into cash flow – and factors that may potentially affect this. Pearson's legacy TMS made it difficult to see the impact of drivers such as its seasonal cash cycle, a business model shift towards providing education services digitally, and the transition to financial shared services.

As James Kelly, group treasurer at Pearson, noted during his presentation at the ACT's 2019 Annual Conference, treasurers have a good track record for using technology to solve problems and deliver business benefits by overcoming perennial treasury challenges. Adopting AI-enabled cash-flow forecasting and working capital analytics has improved cash management (and the profile of treasury) at Pearson. In addition to freeing up significant amounts of cash that was (previously) trapped overseas and reducing balances by over £100m, treasury has made more cash available for investment in the business in situations where it might otherwise have needed to draw on credit facilities.

Of course, no two digital treasury ecosystems are alike; not least because they have evolved in unique circumstances over a number of years. Da Costa, Kelly and Worboyes are aware that, although many treasurers are exploring new technologies and what they make possible, their readiness to adopt them is dependent on a great many factors – which is highlighted in some of the findings of the ACT's latest *The Business of Treasury* survey. The expectation that automation will impact on their working lives was highest among treasurers in the Middle East and Africa, where organisations are less likely to be held back by legacy systems, and ways of doing things are less likely to have become entrenched.

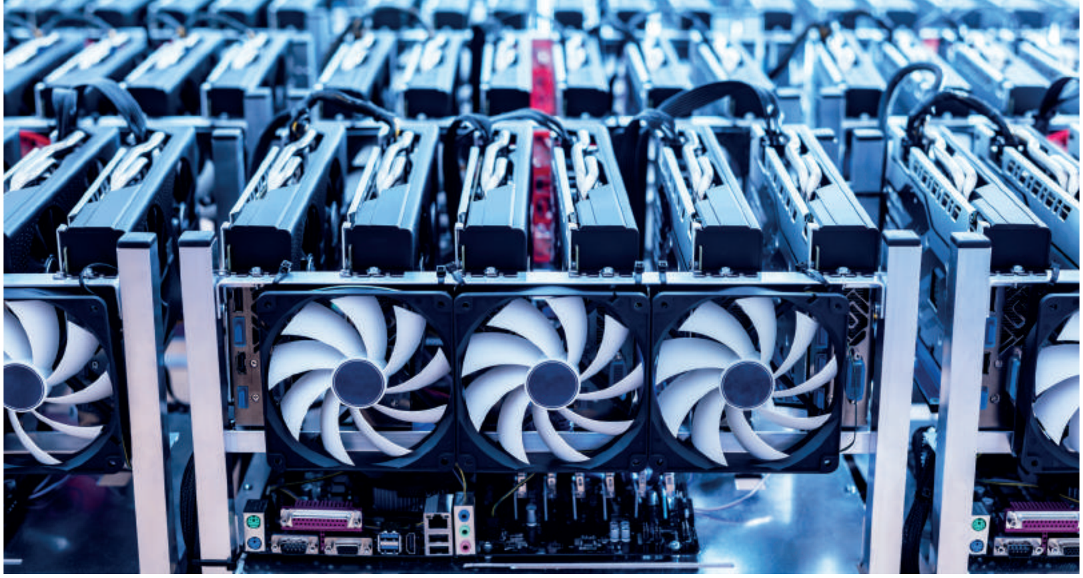
EASTERN PROMISE

This may (or may not) be reflected in the uptake of one particular emerging technology: distributed ledger systems such as blockchain. Either way, if we look to the East, we can see how its adoption can benefit banks, corporates and their treasuries by speeding up (and simplifying) complex processes and access to cash. Abu Dhabi Commercial Bank (ADCB) recently completed its first live end-to-end trade using a Singapore-based blockchain platform (with full document automation) from dltledgers.

"This private network allows ADCB to service corporate customers in real time, increasing transparency and building cross-border connectivity," says Krishnakumar Duraiswamy, the bank's group head of trade finance.

The trade moved goods worth $6.5m for Western Red Spring Canadian Wheat, from Canada to Bangladesh. The network provided end-to-end trade visibility across the entire life cycle of the transaction with authenticated and consented digitised documents at every step. This transaction involved several trade partners, including Agrocorp International, a Singapore-based trading house. Nitin Jain, its head of treasury and capital markets, sees big benefits on the horizon: "We could potentially reduce our financing costs by at least 15-20% through dltledgers technology, saving significantly on the costs of physically moving documents," says Jain. "We are also able to access earlier financing from banks as the documentation flow is much closer to real time."

As global trades evolve and become more intertwined, demand will increase for more collaborative models that can streamline and automate complex processes – like many aspects of treasury. However, there are no guarantees that automation will automatically deliver benefits. RPA is a good example: it may be faster and easier to implement (or access) than more traditional automation, but it requires the same discipline. "The fundamental thing you always have to understand before automating a process or putting in a robot is whether the process is fit for purpose," says Worboyes, who is investigating the treasury



potential of RPA at MS Amlin. "You need to do your process and data work first or you are not going to get any benefits."

ROBOTS VS HUMANS

When automation does deliver benefits, they can be substantial. "Enabled by emerging technologies, treasury is moving to a workforce of the future, defined by its ability to drive transformation, minimise manual efforts and maximise business insight," says di Paola, and treasury is evolving to reflect this. The prospect of being replaced by smart systems and data-driven decision-making does worry some treasurers: around a fifth of respondents in the ACT's *The Business of Treasury 2019* survey. Less experienced treasurers seem more concerned than senior professionals, who may be less likely to feel threatened, personally, by increasing levels of automation.

Da Costa thinks it will be some time before many people in and around treasury are sufficiently comfortable with the total automation that technology can make possible. "At the moment, for FX dealing, we have a semi-automated system. We can automatically initiate a request, but at any point we have the ability to interact, pick up a phone and talk to a person. Users know that when they request a deal, somebody is looking and questioning whether it's correct," he says. Human interaction remains valuable, particularly as the role of treasury expands to take Da Costa and other seasoned professionals into the more commercial side of the business.

Although he expects technology to play an increasingly large role in treasury, Da Costa does not foresee the extinction of corporate treasurers any time soon. "My role in the past year has involved looking at merchant card fees, credit cards being issued and how car leasing can be optimised," he says.

It has also taken him into other areas where treasury has not traditionally got involved or been invited. "Now other parts of the business are looking to treasury because they can see the value we can add and the contacts we have built up through our relationships with banks and their relationships with fintechs," he explains. Even in the era of digital treasury ecosystems and data-driven decision-making, relationships matter.

THE APPLIANCE OF SCIENCE

Treasury-related areas with potential use cases for emerging technologies such as AI, analytics, distributed ledgers and RPA range far and wide. They include:

- accounting;
- bank account services;
- cash-flow forecasting and planning;
- deal execution, confirmation and reporting;
- exposure analysis and forecasting;
- exposure capture;
- financial reporting;
- internal controls compliance;
- invoice approvals;
- investments;
- liquidity management;
- management reporting;
- monitoring covenant and counterparty limits;
- regulatory compliance;
- payment execution and monitoring;
- trade finance; and
- working capital.

Specialist analytics tools include: BankSense – automated cash analytics; ComplyAdvantage – intelligent screening platform for anti-money laundering and other regulations; and Eikon from Refinitiv (formerly Thomson Reuters) – tools for discovery and analysis of multiple data sets. Treasury and risk management systems such as from Kyriba and from SunGard also offer some built-in analytics.

AI-enabled systems include: Beat Syndicate 4242 of Lloyd's – underwriting pre-approval invoice payments; Nets Fraud Ensemble – fraud monitoring/prevention; Trovata – open banking platform unifying data for banking, accounts payable/receivable (AR) and cash; Trade AI Engine – trade document processing; and Freeda Digital Assistant – operational support for AR professionals.

Distributed ledger examples include: Marco Polo Network – trade finance; Interbank Information Network – cross-border payments; Rong-E Lian – supply chain financing; Project Bond-i – issuing and trading debt instruments; Trust Your Supplier – supplier qualification, validation and onboarding; and Neo – multicurrency bank accounts for corporates.

RPA tools are available for in-house use (without coding) from providers such as Nintex or in partnership with organisations such as Automation Anywhere. RPA-based services can be accessed on demand 'as a service' or from outsourcers and integrated with existing systems. Examples of 'intelligent' RPA that apply tech such as AI, computer vision and cognitive automation include Kryon, SAP and UiPath.

The ACT's Business of Treasury 2020 *research will focus on the changing face of treasury technology and what it means for the profession. If you are an ACT member and would like to take part, please email Anne Hogarth (ahogarth@treasurers.org) to register your interest*

Lesley Meall is a freelance business and technology journalist

LONG LIVE THE DISRUPTERS

Technology's extraordinary evolution and the disruption we face is knocking at the gates of outmoded ways of doing things. Christian Doherty reports

Trying to predict not only what new technology will emerge in the coming decade but also the effect that it will have on business, investment and regulation is by its nature a fool's errand.

But, despite the speed of change, there are some clearly emerging megatrends that will inform the direction of travel in the next few years. Underpinning almost all of them are perhaps the most exciting and disruptive of all the new technologies: artificial intelligence (AI) and supercomputing.

AI, most experts believe, will develop in its own lane, but will also underpin the development of many other complementary vertical technologies that will depend on AI's speed, accuracy and ability to learn and improve.

INTELLIGENT DESIGN

Richard Tang, founder and CEO of the ISP Zen Internet, believes we're moving beyond 'artificial' intelligence towards something more like 'real' intelligence, the next level of AI.

The next 10 years, Tang believes, will see AI's place as a foundation technology in business firmly cemented. "Things like voice recognition and RPA [robotic process automation] are useful for big businesses with lots of different systems and spreadsheets, but if you want to improve a process in an enterprise it's a very complex problem. We've tried in our business and it's really hard."

But there are examples of companies using existing technology like Lex, Amazon's virtual reality software, to improve processes – it can monitor phone calls and detect changes in pitch, tone and volume to build a picture of customer interaction and satisfaction.

"We can expect more of that type of thing, with AI incrementally creeping into business processes and improving them. The next 10 or 20 years will certainly see a lot of human customer interaction replaced by AI-led machines," says Tang.

The next level of AI will bring in more context-driven understanding. "It's not just about understanding 'what' and 'when', but 'why'," Tang suggests, pointing out that the rate of progress in these applications is improving all the time, with greater emphasis on AI speaking to AI.

"So, as corporates increase their reliance on AI, their partners, whether in banking, insurance or other parts of the supply chain, will respond in kind, transforming mundane, slow and costly interactions.

"Machines can communicate much faster than humans can," Tang says. "The average 'data rate' for human speech is 31.5mbps; computers speak in Gbps, so it's exponential."

BREAKING THE CHAIN

Among the next wave of technology that will underpin a lot of disruption is blockchain, – the secure, unhackable distributed ledger software upon which the world's cryptocurrencies sit. But some observers – including Tang – view blockchain as an existential threat to banks in particular.

"There's no reason why you couldn't store everyone's bank balance on the blockchain, removing the need for the central computing power of the big banks," he says.

"In its place, it makes sense that we'll see the emergence of five or six megacorps that own the underlying infrastructure, with banks, insurers, retailers and others sitting on top of that as the owners of the customer relationships.

"However, that calls into serious doubt the value that big banks and others offer to their customers, especially in a world where AI-driven banking direct from mobiles to the blockchain will become mainstream. The fintech sector is moving very quickly to fill every gap in the banking sector."

ONE GIANT LEAP

Clearly, the banks are among the most vulnerable to disruption. However, John Stewart, NatWest's global head of scouting and research, is one of many in the banking sector tasked with understanding the next wave of innovative tech that promises to disrupt countless sectors.

Having recently returned to the UK after five years in Silicon Valley, Stewart has had a ringside seat at the scene of innovation, where quantum computing is generating a lot of interest. Quantum computers will allow us to process data in a more sophisticated way that moves beyond traditional methods.

While a regular computer uses zeros and ones alternatively, quantum uses them at the same time, which increases the processing power exponentially. Essentially, quantum breaks free of the ordinary processing limits we currently work under.

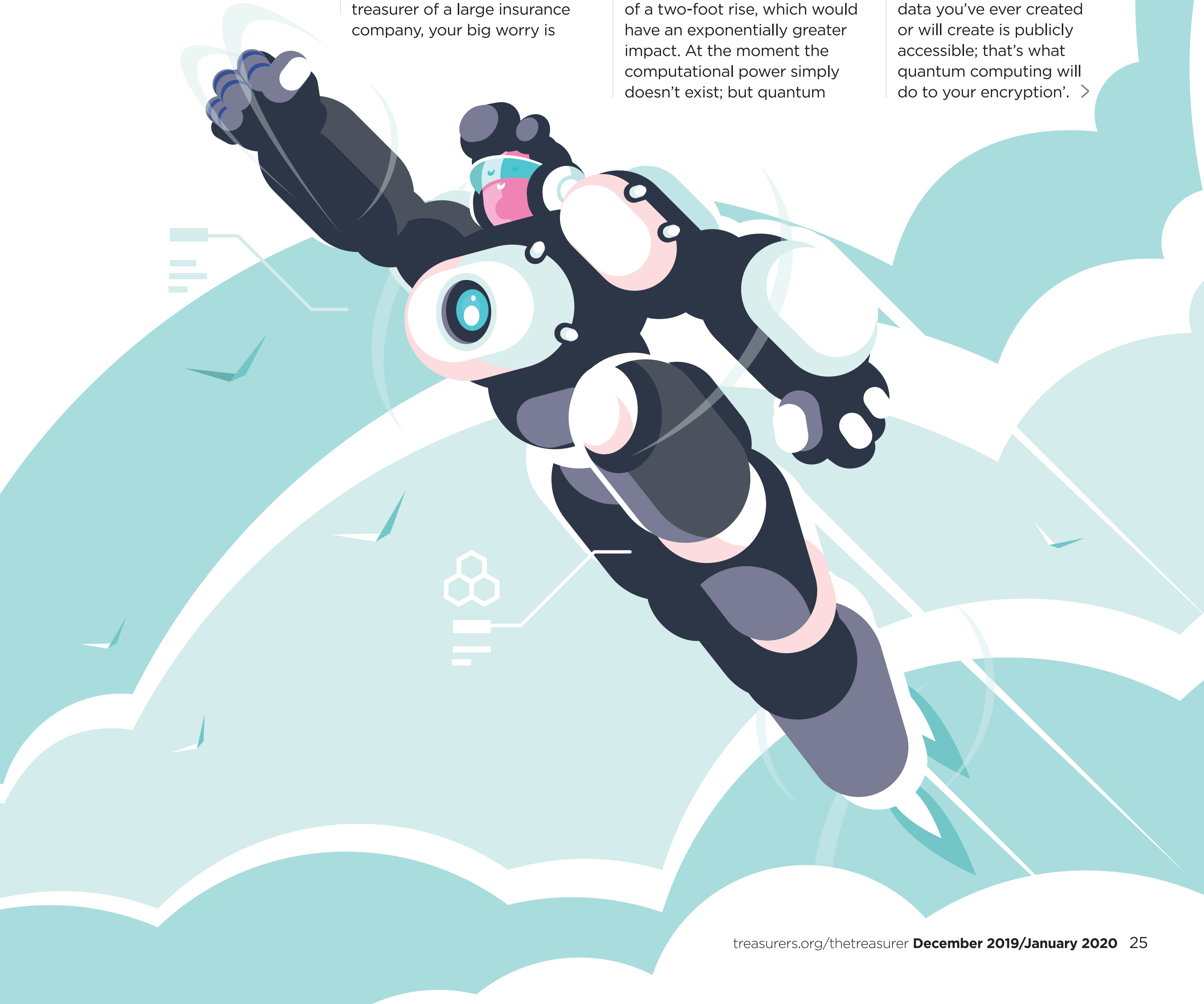
Indeed, a recently leaked paper from Google suggested the search giant's quantum machine Sycamore had completed a single highly technical calculation in three minutes and 20 seconds. To give a sense of the leap forward, it would have taken the US Department of Energy's Summit computer 10,000 years to do the same.

SCALE MODELS

So, what will that mean for business? "If you're the corporate treasurer of a large insurance company, your big worry is losses," explains Stewart. "So you start looking at your risks and property insurance looms large. A big worry is climate change and sea level rises. Using all the historical flooding data, we can model based on that, and guess at what might happen if levels rise by, say, one foot.

"But quantum allows you to go beyond historical precedent and start to model the consequence of a two-foot rise, which would have an exponentially greater impact. At the moment the computational power simply doesn't exist; but quantum computing gives you the option of going far out into the unknowns and getting your predictive models so much better."

Quantum is also a threat, however: Stewart recalls a presentation from the CEO of a quantum computing start-up who asked the audience to 'imagine a world where every bit of data you've ever created or will create is publicly accessible; that's what quantum computing will do to your encryption'.



“Our current encryption landscape is safe because there are more locks than keys,” Stewart says. “However, quantum upends that by using such powerful processing as to find enough keys for each lock. That said, clever people are now working on quantum-resistant hardware, but that’s in the early stages.”

REAL LIFE

So, as computers get faster and more powerful, the applications they can run also increase. The earliest applications of ‘blended’ or ‘augmented’ reality (AR) have been largely behind the scenes, with a growing number of companies using it for training (US retailer Walmart for one) or industrial design. But AR will soon emerge into the consumer space, Stewart believes.

“The obvious application would be something like retailers using AI-driven engines to help home consumers walk around a virtual supermarket picking their favourite fruit.”

Gradually, he believes, better headsets will see AR move into the mainstream, and as one sector adopts the tech, more will follow. “They’re much more wearable… they’ll go into gaming, travel, retail, fashion. And then suddenly, consumer demand will see it extend into banking, for instance, where they may offer certain experiences in ‘midair’ as people become more used to wearing lighter, better headsets and want to access their account information instantly.”

IBM’s model of quantum computing at the CEBIT innovation and digitisation conference in 2018

Anyone with shares in AR headset manufacturers will be pleased to hear that. But the manufacturing sector is set to leverage its own disruptive tech in the coming decade. 3D printing has been around for a while, but is used for small production runs for bespoke products.

However, the range of materials used has grown (printing metals is now a reality) and the applications, from plant-based meat to functioning organs, are beginning to expand. Stewart foresees the development of larger printers as a key factor in powering genuine disruption in the area of logistics, shipping and manufacturing.

“Imagine a situation where a FedEx or UPS has two or three huge printers in its warehouse: the manufacturer, rather than

THE QUESTION ISN’T WHAT WILL CHANGE, BUT: WHAT WON’T?

There is no insulation against the disruptive potential of innovation, as Tristan Allen explains

The problem with the future is that it hasn’t happened yet and in the context of risk, conjecture without data is hard to manage.

Consumers (end users, customers) have a habit of changing their minds about what their need is and the normal cycle is for them to look around for a new solution to their problem. Suddenly, the incumbent producer comes up against a new pressure: disruption. While this isn’t a new phenomenon, the probability of disruption in every market is higher than it has ever been and looking ahead, it’s likely that this probability will only increase.

Let’s look at the following potential scenario.

The UK government (among others) has mandated that all new cars should be fully electric by 2040. Cross-party studies are suggesting this deadline should be brought forward to 2032. In either case, the signals are that cars aren’t going to run on fossil fuels for very much longer.

“The current Road to Zero strategy aims to see between 50% and 70% of new car sales, and up to 40% of van sales, being ‘ultra-low emission’ by 2030, with only sales of ‘effectively zero emissions’ vehicles by 2040.”

Strategically, this is useful to know. If you make exhaust pipes, fuel tanks, carburettors, spark plugs, fan belts, water pumps… all the components that sit under the bonnet of a vehicle powered by an internal combustion engine, you must be aware that demand for your product is in decline.

But, much like when interest rates rise, mortgage payers don’t feel any pain for a month. Reality hits when the first increased direct debit goes out. This is the condition of the car components industry. The market is undergoing a structural shift, but hasn’t seen a big enough change for upstream business to notice – yet.

There is no useful data recording this restructuring. Logically, data is a record of historical fact. Innovation – survival in a quickly evolving market – relies on extrapolation of trends and creative thinking.

Let’s extrapolate some more. If cars are to be electrically powered, as is the current trend, and if they continue to be the subject of institutional investment, as is currently the case (see the money being ploughed into battery development), there is every chance that you and I will soon have no need to visit a petrol station. We’ll recharge our vehicles at home or at the office. Result: redundant real estate. Throughout the transition, fewer visits to the filling station means less footfall past all the convenience products that also sit on shelves: chocolate bars, crisps, pasties, milk. As adult, car-driving consumers, where will we fall prey to the impulse buying of snacks in the way we do today, or pick up barbecue charcoal or last-minute flowers?

Current trends suggest an increase in home delivery of prepared meals and reduced reliance on wholesale food distribution, as well as growth in centralised distribution direct to the consumer. What we can see is just how hard it is to do the next best thing, bearing in mind the importing parts from China, assembling them and shipping them back, instead simply sends the CAD file to the distributor, which prints the car part, or chassis or tool, and then ships them on or sends them back. Companies like Bosch and other large manufacturers will be feeling nervous about this stuff."

Few sectors will escape the impact of any of these technologies. Some may see them as a threat, but planning is already under way for the smart ones to harness the opportunities.

Christian Doherty is a freelance business and technology writer

DIGITAL MONEY – A TREASURER'S VIEW

A heightened focus on digital currencies was seen in 2019, as Charlie Barling explains

There was much fanfare around the announcement by Facebook that it would look to launch its Libra 'stablecoin' in 2020. Libra is a digital token backed by a basket of fiat currencies and Facebook has stated its key objective for Libra is to broaden access to financial services for those most in need, ie the world's unbanked.

Libra has attracted the attention of regulators and policymakers alike. Despite best efforts to consult with regulators and assure them they will only launch with approval and when conditions are right, the reception to Libra has been genuinely frosty. Many in high places argue Facebook's significant user base would allow them to exert undue power and influence and are making it very clear that no private entity can claim monetary power that would be a threat to the sovereignty of nations. Intense scrutiny has already caused a number of high-profile partners to back away. There are concerns that their association with Facebook may bring their dominant positions within their own markets more into question.

Whether Libra will actually launch is open to question. But central banks are finally sitting up and taking note. Perhaps one to watch will be the People's Bank of China, which has itself formally undertaken to launch its own digital currency. Its purpose is as yet unknown.

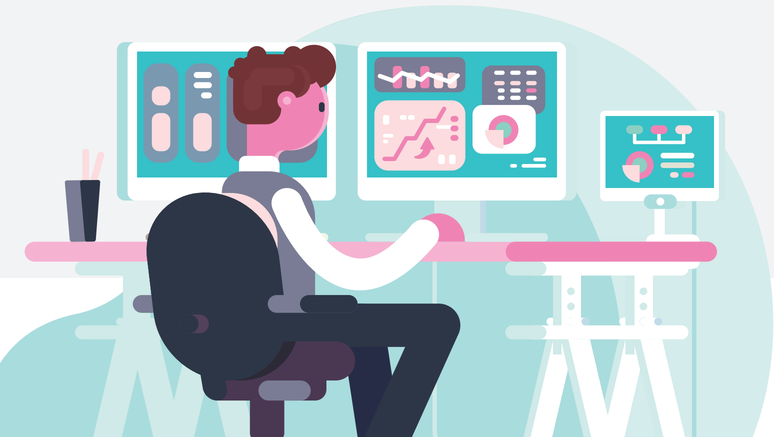
Charlie Barling is a member of The Association of Corporate Treasurers, and consultant and director of Chisoli Treasury Solutions

imperative to make a profit and meet shareholder expectations while acknowledging with certainty that things are changing. And not just some things, everything.

Is there data to support this? No. Is there a case for maintaining future scenarios to capture these ideas? Yes. And here we arrive at another problem challenging every C-suite: what to choose from all the possible options? Return-on-investment calculations reaching into the future, based on historical data, can be called estimates or forecasts but, essentially, they are guesses. Informed guesses, perhaps, but guesses nonetheless.

The resulting time plan that corporates adopt must be adaptable: a strategic endpoint declared to stakeholders that can flex as new information is received. Sadly, experience suggests that "we'd rather be wrong with others than right by ourselves", says James Clear of Atomic Habits.

The problem innovation faces is that it's simply not data-driven.



The way product development is funded, therefore, comes down to how well the project champion can 'sell' an unmet need to financiers: a function, not unlike the sales department, that works to explicit financial and time-based targets. *Plus ça change*.

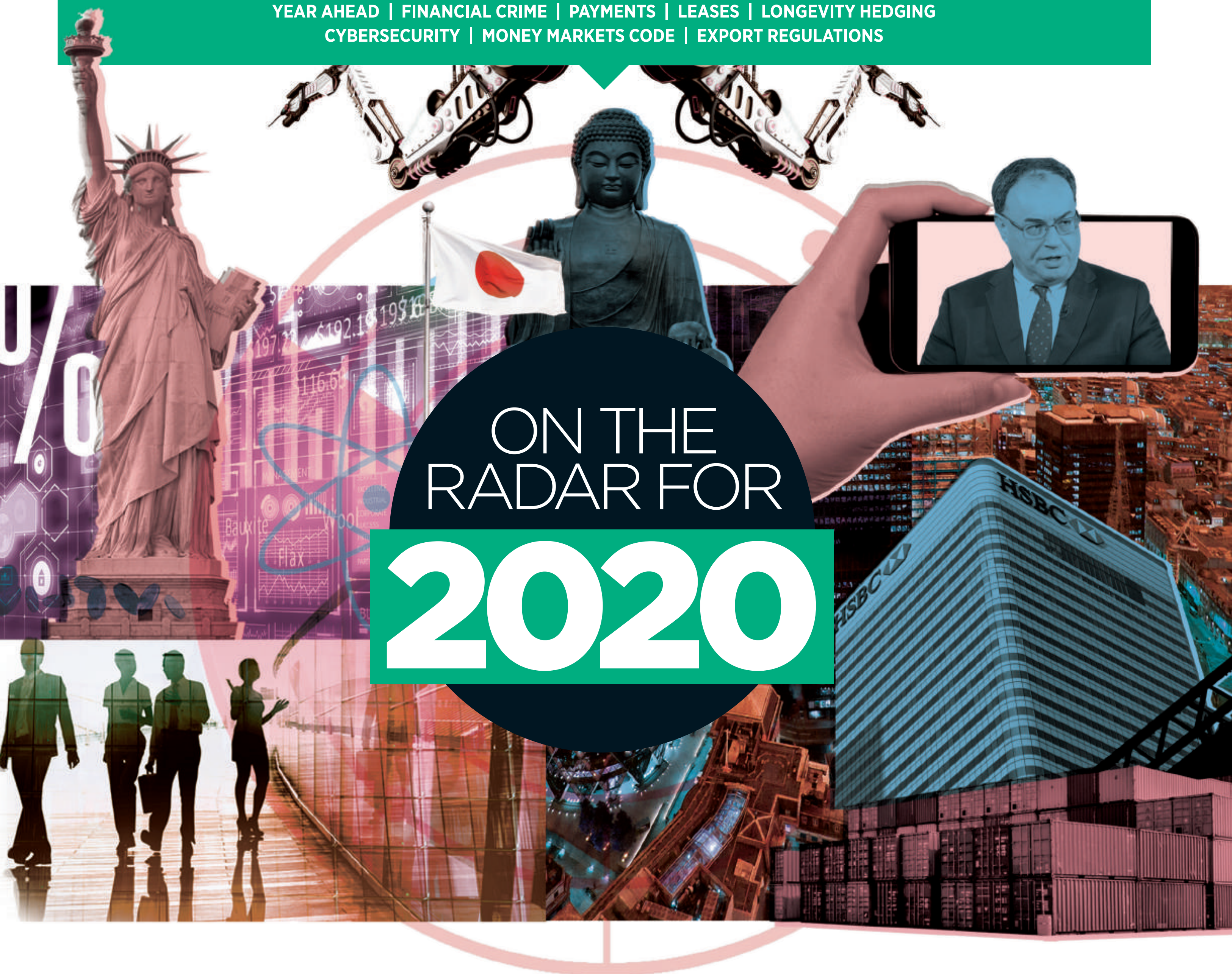
These are commonplace issues, and yet the overarching factor remains: not what will change, but what won't? In most funders' minds, what can't change is rate and pace of return. If you doubt this, just go and apply for a small business loan from a high street bank and see how the underwriters respond. However disruptive they choose to appear and how positively the high street banks present themselves to SMEs, the reality of securing loans is a very different story.

Financial planning technology is developing quickly and fintech is the term in vogue. Algorithmic sophistication connotes greater trust in the forecast, but without empirical data the modelling still falls short. Intuition and experience is where an innovation-based strategy begins.

New modelling tools being created by fintech for fintech may help to assess what change is around the corner. However, applying a common trajectory, these tools will evolve, become widely available and used across industries to aid decision-making. The specialism of early users will not survive as long as the tools themselves do. What then for the fund managers, financiers and risk management?

The data may not yet be there to see, but the trend is. If you look.

Tristan Allen is managing partner and product strategy consultant at innovation agency room44.co.uk



ON THE RADAR FOR 2020

WILL THIS BE THE YEAR OF LIBOR, THE YEAR OF THE TRADE WARS OR THE YEAR YOUR TREASURY EMBRACES NEW TECHNOLOGIES? SARAH BOYCE REVIEWS KEY ISSUES

Here in the policy and technical team at The Association of Corporate Treasurers (ACT), many topics pass across our desks. They range from the huge – like Libor transition – to the niche, such as pensions, and from the slow burn – like ESG – to the immediate: European Market Infrastructure Regulation refit reforms.

We've put our heads together and come up with five things we feel that we'll be spending time on in 2020...

Libor transition – 'the year of change'?

It is almost 18 months since Andrew Bailey of the Financial Conduct Authority announced that Libor would be disappearing from our screens at the end of 2021. The reasons behind this decision are well documented, but what the market continues to wrestle with is what to replace it with, and how to transition away from a benchmark referenced in contracts with nominal values of some $350 trillion.

While the frustration grows that banks are still not offering alternative financial markets products, nevertheless, corporates must take things into their own hands as far as possible. What is now important to do is establish where Libor is used – and in particular where it is referenced in non-financial market contracts (so, commercial contracts, trade products, intercompany lending, valuation models, etc) and start to identify alternate reference rates to be used in these contexts.

Replacing Libor with a risk-free rate (RFR) may not be appropriate or desirable in many cases.

The official sector has stated there will be a forward-looking (term) rate available for use in certain cases (at least in GBP), but its arrival feels some way off yet – partly because the regulators do not want financial institutions to use it, as this would risk many of the challenges faced with Libor.

In reality, Libor transition will result in a fragmented market, increased cost and genuine litigation risk, but it's not going away, so we need to wrestle it into a form that doesn't adversely impact the real economy more than necessary.

The geopolitical landscape – 'the risk to international trade'

As treasurers are taking a more strategic role in their organisations, concerns that impact the entire company are becoming a common topic of conversation among treasurers, particularly as they are in a unique position to garner knowledge from the wider financial community.

The past 12 months have seen dramatic increases in political instability, not only within certain countries such as Hong Kong and China, but also across borders. In addition to the US facing off against a number of countries, there are other hotspots such as Japan and Korea that may impact business operations. And the UK/EU relationship seems to be a 'work in progress'...

Then there are the various and increasingly complex sanctions regulations – whereby it's almost impossible to keep entirely up to date as the EU and US, for example, issue updated and differing lists of unfavoured nations.

Treasurers will need to keep abreast across all of these developments if they or their suppliers and customers do business internationally – not only to ensure security of funds, but also to support the wider business with relevant and current information.

Technology – are you making the most of it?

Every finance conference for the past 20 years has leaned heavily on the role technology can play in transforming treasury activities. Most treasurers use some form of technology – from simple electronic banking through to fully integrated straight-through processing activities (see our lead feature on technology on page 20).

Billions of dollars are being invested in new solutions, and fintechs are building a range of applications to make life easier. We hear stories of apps that can be built in a matter of weeks that can connect disparate sources of data – but how does a treasurer assess what it needs and who they can trust? The landscape is becoming more complex (not less) with new acronyms like XML, ISO 20022, DLT, RPA and NLP* adding to the difficulties. To make matters worse, some standards have multiple versions.

Treasury functions are full of business-critical activities and many have a high degree of manual intervention. This creates risks around business continuity, operational resilience and manual error. Treasurers need to find the investment budget and the bandwidth to get more from their existing technology and to look at how application programming interfaces and fintechs can provide cost-effective solutions to everyday problems.

ESG – the coming tidal wave

It's hard to avoid talk of ESG (environment, social and governance) these days – both in our general news with Extinction Rebellion back in the headlines or in the financial press with comments from Mark Carney.

The attention of policymakers and regulators has resulted in a number of initiatives, including:

- Task Force on Climate-related Financial Disclosures;
- The Principles for Responsible Investment with more than 2,500 signatories; and
- The Equator Principles for project finance.

Employees, shareholders, lenders, regulators and policymakers are all taking action, and treasurers will need to take proactive measures to ensure they can respond appropriately. Whether it's raising finance through green structures, dealing with financial partners with strong ESG credentials or reporting on ESG activities, treasurers will need to play a key role. If they don't take action now, they may find themselves locked out of financing options in the not too distant future.

And it's not just the risks that arise, but the opportunities. ESG is no longer a purely philanthropic effort, but it offers the opportunity to raise cheaper finance, be more attractive to suppliers and customers, get a better credit rating and be more profitable.

Payments – opportunity or risk?

For many decades, the payments landscape has experienced very few innovations. Most of us, as individuals, will have taken advantage of new payment providers and technologies such as PayPal, contactless payments and instant notifications of payment activity. The impact on businesses has been slower to catch up with retail innovations, but changes are imminent.

Confirmation of Payee will be delivered by the six largest banks in the UK by March 2020. This will help fight fraud by requiring validation of the beneficiary account name. Request to Pay will be coming soon and for those treasurers reliant on direct debit income, their cash forecasts may change significantly as customers choose to delay payment.

Strong Customer Authentication was scheduled to have been implemented in the summer of 2019, but due to various reasons is now being delayed.

These changes and others will affect key payment activities – both inbound and outbound. For most treasurers it will provide an opportunity to look at the overall payment activities to ensure that the different channels available are being optimised and that innovations such as SWIFT's track and trace are being taken advantage of. Many of these changes will require investment in payment and customer systems, and treasurers will benefit from ensuring they are included in any technology investment plans.

You will find lots of materials relating to all of these and many other subjects on the ACT website.

We'd really like to hear what your top five issues for 2020 are. Please drop us an email at technical@treasurers.org with your suggestions – after all, we're here to help.

* eXtensible Markup Language, distributed ledger technology, robotic process automation and natural language processing

Sarah Boyce is associate director – policy and technical at the ACT

SHUTTERSTOCK, GETTY

THE LONG ARM OF THE LAW

SANCTIONS, FROZEN ASSETS, DISCLOSURE RISKS – AN AWARENESS OF FINANCIAL CRIME AND THE RESPONSIBILITIES CORPORATES HAVE UNDER LAW IS AN ESSENTIAL PART OF RISK MANAGEMENT, AS JOHN BINNS EXPLAINS

How much do businesses that operate in the UK need to worry about financial crime? Traditionally, the answer has been very different depending on whether that business is in the 'regulated sector' – which includes financial institutions, accountants, estate agents and others – for the purposes of the Proceeds of Crime Act 2002 (POCA). But increasingly, even those outside that sector have to keep financial crime in mind and may find themselves having to report suspicious activity.

The Proceeds of Crime Act

Part of the reason for that is that POCA imposes criminal liabilities on everyone – not just the regulated sector – for handling 'property' (very broadly defined) that represents the proceeds of 'criminal conduct' (also very broadly defined), or from becoming involved in arrangements that relate to such property. There is an important exception where the property is received for 'adequate consideration', though not where the goods or services might themselves assist in crime. A marketing firm *may* receive fees from someone they know to be a fraudster, but *not* if their work has helped him find and defraud his victims.

The arrangements offence

What that means in practice is that, unless your business handles others' assets for them, the key POCA provision to be aware of is likely to be the 'arrangements' offence, which can create problems for those who finance or play another, even peripheral, part in a transaction that they suspect may involve the proceeds of 'criminal conduct'. Lest that prospect seem remote, it's worth bearing in mind that this can include, for instance, a pecuniary advantage arising from tax evasion, or a failure to obtain a proper licence, or even conduct that is lawful overseas, but would be unlawful if it happened here (such as Canadian cannabis sales).

Disclosures and consents

Fortunately, POCA provides for the scenario where a business finds itself in circumstances where a suspicion has arisen and wants either to exit the transaction, or go ahead with it. Depending on the circumstances, the answer may be to make a disclosure to, and request consent from, the National Crime Agency (NCA). The NCA receives such requests on a regular basis, mainly from banks, and has a statutory period within which to respond, otherwise consent is deemed granted.

Assisting with investigations

Other than banks and other large regulated-sector firms, most businesses will not be accustomed to spotting such scenarios or making disclosures, and the first sign they may have of a problem is a request for information from the NCA (or other investigative body), perhaps in the form of a production order or disclosure notice. That may be in connection with a criminal investigation, or one to do with civil recovery, confiscation, frozen funds or seized cash, either in the UK or overseas.

Peripheral vision

It would be understandable in those circumstances for a business to comply with any orders made against it, but not to concern itself unduly with the problems of others. But the risk of course is that investigations spread and can have consequences, particularly where assets are frozen, or requests are made in multiple jurisdictions. Some peripheral vision of financial crime risks can often be beneficial.

'Failure to prevent' and sanctions

Beyond POCA, there are a small but increasing number of offences for which a corporate can be liable on the basis of 'failure to prevent' – currently bribery, and the facilitation of tax evasion – unless they can show they had reasonable preventative procedures in place. And there are financial, trade and transport sanctions, traditionally a foreign policy measure, which increasingly target private individuals and firms, and those who deal with them. Sanctions laws can impose criminal and monetary penalties on firms that deal with the assets of, or provide resources to, 'designated persons', on the basis that they had 'reasonable grounds to suspect' that this was the case. The list of 'designated persons' is ever expanding and contained on a government website (www.gov.uk/government/publications/

> The sensible starting point is to undertake a risk assessment (or refresh one already done)

of encountering scenarios that are unexpected. Where that occurs, the first questions to ask are who is aware of the facts, where the evidence lies and whether there are risks of ongoing or future offences or harms. Where the concern is about past actions, the question of whether there are proceeds of that conduct, and where the proceeds currently are, could be important. Judgements will need to be reached on the level of concern or suspicion, which could be a moveable feast. Contact with the authorities could be necessary and may otherwise be desirable. There may also be civil, employment or private remedies to consider against people identified as responsible.

A shared responsibility

Whether these issues are tackled in advance or when they arise, the guiding principle of a responsible business towards financial crime is to recognise that it is not, if it ever was, solely the concern of law enforcement and the regulated sector. Any business can find itself caught up as a victim, a witness or on the periphery of arrangements that concern its proceeds. None, therefore, can afford to ignore it.

financial-sanctions-consolidated-list-of-targets).

Risk assessment

What, then, should a responsible business do to mitigate its risks from financial crime? To borrow an idea from the regulated sector, the sensible starting point is to undertake a risk assessment (or refresh one that has already been done), looking at the nature of your business, the countries and sectors in which you operate, and the partners you deal with, and consider the scenarios in which you might come into contact with bribery, sanctions breaches, tax evasion, money laundering, terrorist financing and other acquisitive offending.

Policies, controls and procedures

From there, the challenge is to create (or refresh) a set of policies, controls and procedures that ensure risks are avoided, escalated where appropriate, managed and mitigated in a way that doesn't impact unnecessarily on your business's legitimate activity. A set of preventative procedures may well involve a process for escalating issues and reporting them to the authorities, while also being mindful of confidentiality obligations to third parties.

The risk-sensitive approach

A good rule of thumb is to adopt the mindset of a stranger to your business – perhaps the mindset of an individual working in law enforcement – in order to sense check the facts as you know them, but with a cynical or suspicious eye. In practice, this can lead to difficult conversations in which reasonable questions aimed at complying with the law can clash with personal or cultural reticence about financial privacy. In practice, due-diligence processes that are sensitive to the heightened risks associated with certain sectors are essential, and cultural reticence about the provenance of wealth cannot be allowed to be a barrier.

Dealing with a crisis

Diligent preparation notwithstanding, of course there will always be the risk

John Binns is a partner in the business crime and corporate regulatory department of BCL Solicitors LLP; bcl.com

IMMEDIATE PAYMENTS

MORE THAN A DECADE AFTER THE INTRODUCTION OF IMMEDIATE PAYMENTS IN THE UK, OONAGH McGRANE LOOKS AT ITS EVOLUTION AND THE CORRELATION BETWEEN IMMEDIATE PAYMENTS AND SWIFT gpi

Last year saw Faster Payments in the UK break the record for the highest amount of payments processed in a single year. More than two billion payments with a value of £1.7 trillion were processed in 2018. This year, the value and volume has grown again, with a run rate of in excess of 2.4 billion and a value growth of nearly 20%.

So, what does this mean? The biggest growth area has been in Single Immediate Payments, which we expect to see grow further as an alternative to cheques and cash. Even though the average value of these payments is less than £1,000, we anticipate a wide range of commercial uses, in addition to the expected consumer-to-consumer flow.

These commercial payments could include immediate invoice settlements, insurance claim payments, the release of cash for lending, supply chain finance and even house purchases where the value is within the current scheme limit of £250,000.

Since the introduction of Faster Payments in the UK in 2008, 45 immediate payments schemes have gone live, as well as eight hybrid schemes, with a further 12 in preparation. These schemes have a number of shared characteristics:

- They are new payments schemes, differing in nature from that of the UK's real-time gross settlement (RTGS) and those of automated clearing houses.
- They are guaranteed and have immediacy in terms of clearing; that is, payment to a beneficiary account and access to funds is immediate, while interbank settlement of the schemes may happen multiple times a day.
- Charges are not deducted from the transaction.
- They operate close to or at 24/7.
- Newer schemes are using ISO 20022, which gives data richness.
- Finality is given, ie whether the transaction can be effected or not is immediately confirmed.
- They are also increasingly being created as a result of close cooperation between regulators and the financial industry, such as the Australia NPP (New Payments Platform), which was built as a result of collaboration between the Reserve Bank of Australia and Australia's financial institutions.
- They are domestic in scope.

The uptake of Lloyds Bank's Immediate Payments proposition allowing cross-border access to Faster Payments has grown significantly, meaning international financial institutions are able to offer an enhanced GBP offering to their customers. This could range from an expat solution to pay a credit card, mortgage or a commercial GBP immediate invoice settlement solution. Australia is looking to follow suit, allowing access for the domestic leg of an international transfer.

Cross-border Immediate Payments challenges

Lack of standardisation and varying value limits can make it challenging to create international interoperability between schemes. This is down to the fact that many were designed solely with domestic use in mind.

In the UK currently, the value limit is £250,000, although the scheme's owners are investigating whether that could be increased to as high as £20m. In Australia, NPP limits are set by banks and range from AUD$2,000 to AUD$20,000. Meanwhile, the maximum value for a SEPA Instant Credit Transfer in euros remains at €15,000, and Singapore's Fast and Secure Transfers limit has just increased from SGD$50,000 to SGD$200,000.

Evolution of SWIFT gpi

The challenge historically with international payments has been around the chain of banks involved in the process, the interbank charging process and lack of visibility of what happened to the transaction once the remitter's account was debited. The latter has been addressed with SWIFT gpi. For the first time, transparency is there; you can see each step in the transaction journey – at least between SWIFT gpi members. Other benefits include:

- **It is driving better behaviours** – through visibility and the SWIFT key performance indicators publication that specifically looks at:
  - Transactions processed on the same day;
  - Transaction traceability;
  - Transparency of deductions; and
  - Unaltered remittance information.
- **Network management** – banks now have a much better view of their partners and how efficiently and cost-effectively they manage the flow they receive.
- **Client experience** – is becoming much more enhanced in both the speed at which transaction enquiries can be resolved (without the need to send multiple messages to banks in the transaction chain) and the addition of enhanced services such as Stop and Recall.
- **SWIFT statistics** – are evidencing improved speed of end-to-end transaction delivery. The latest numbers show 40%

IKON IMAGES

The latest enhancements to the SWIFT gpi roadmap will create a much better infrastructure

of transactions are being credited to the beneficiary in under five minutes; 50% in under 30 minutes; 75% within six hours and almost 100% in under 24 hours. At the time of publication, 550+ banks are now live, Lloyds Bank included, with a value of $300bn sent as SWIFT gpi every day.

The latest enhancements to the SWIFT gpi roadmap, such as Stop and Recall, the inclusion of cover payments, pre-validation, embracing application programming interfaces (APIs) and ISO 20022 compliance, will create a much better infrastructure. However, it remains as good as the performance of its member banks. As RTGS and immediate schemes become SWIFT gpi-enabled, true visibility and interoperability become quasi-immediate.

Influencing factors

THE MOVE AWAY FROM CASH

Brazil, China, the eurozone, the UK and the US have seen the biggest growth in non-cash transactions (source: *World Payments Report 2018*), with future growth expected to be in Latin America, Central and Eastern Europe, the Middle East, Africa and Asia.

In Australia, the NPP has already seen volumes grow in excess of cheque volumes. Interestingly, in Sweden, the central bank has declared its intention for Sweden to be a cashless society by 2020. The Bankgiro website even has a live ticker of transactions completed in the past 24 hours. In India, the immediate payment service saw significant uplift of volumes in excess of 50% following the Indian banknote demonetisation directive. These examples clearly show how immediate payments schemes, as well as regulatory directives, are assisting the migration away from the use of physical cash.

CONSUMER DEMAND AND CHANGING EXPECTATIONS

The significant change to our clients' expectations has been brought about by digitalisation. In a world where immediate real-time access to anything from train travel, news, shopping with same-day delivery becoming standard, traditional payment methods can appear slow and unwieldy. The availability of enhanced information also makes FX rates and spreads more readily available to all types of consumers and businesses. So, in the domestic and international e-payments space, expectations for traceability, transparency and timeliness are increasing.

COMPETITIVE LANDSCAPE

The range of non-bank, non-traditional payment service providers has grown exponentially over the past 10 years. This includes platform providers such as Amazon and Apple Pay to the multiple domestic or proposition-driven payment solution providers like PayPal, Alipay, TransferWise, Worldpay, WorldRemit, Wirecard and Trustly. So, are they driving banks out of international payments? Not necessarily, if banks continue to play a role in the provision of secure, safe transactions both directly to their customers and to these intermediaries who still often rely on traditional banks to provide clearing access.

CHANGING REGULATION AND TECHNOLOGIES

The combined forces of Open Banking and Payment Services Directive 2, as well as rapid adoption of APIs in the financial services, are ensuring that banks working alongside third-party providers now give greater choice, bring efficiencies and new propositions to traditional cash management practices. APIs in the UK were initially mandated upon the financial services industry by regulators in order to deliver Open Banking in the UK. However, at Lloyds Bank we have found that, in a very short period of time, we are not only meeting these regulatory requirements, but are in turn using our new-found expertise to open up access to services, create new digital experiences for our customers and upgrade existing journeys for them.

ISO 20022 migration is upon us beginning November 2021, which is another opportunity to drive interoperability and the provision of enhanced services on the back of enriched data exchange.

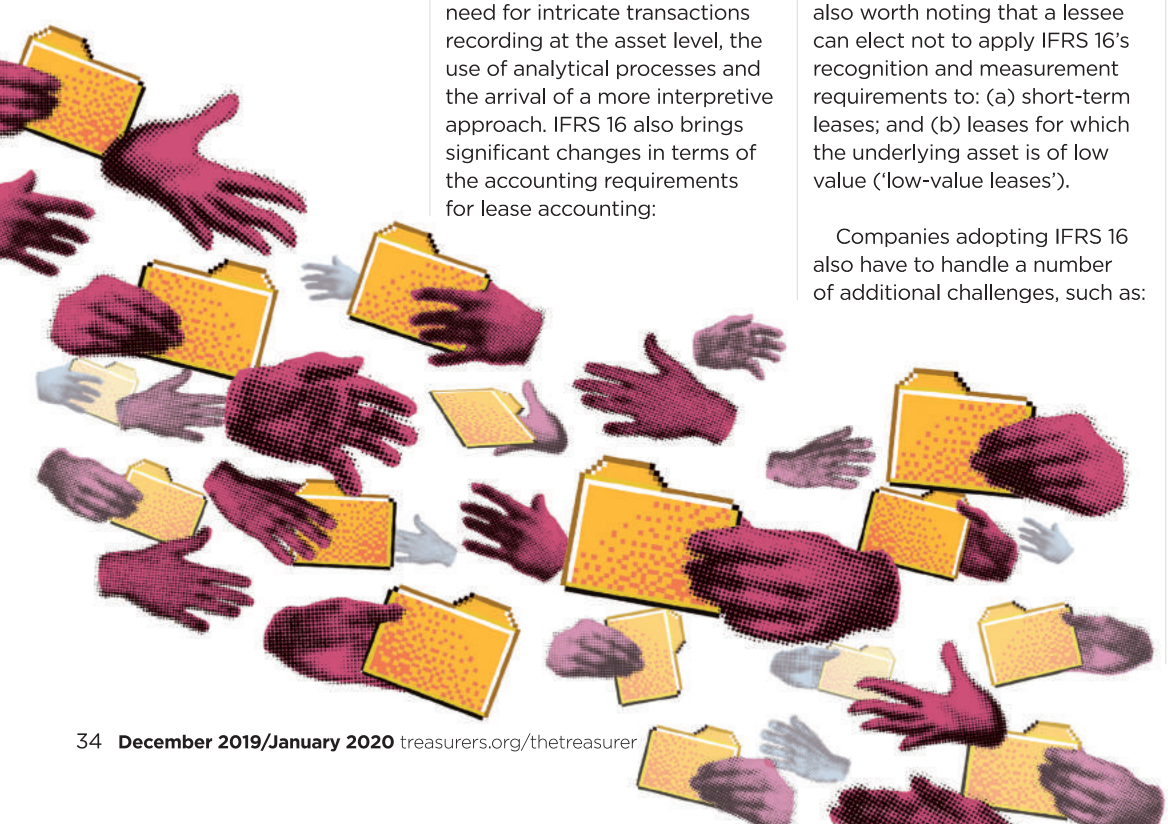
Oonagh McGrane **is director, payments propositions manager, global transaction banking, at Lloyds Bank**

LLOYDS BANK

LEASE ACCOUNTING SOFTWARE: THE LATEST FINTECH APP FOR TREASURY

WITH LEASES NOW BEING REPORTED ON THE BALANCE SHEET, IT'S MORE IMPORTANT THAN EVER FOR TREASURERS TO HAVE VISIBILITY OVER THEIR PORTFOLIOS AND THE ECONOMICS OF THE DIFFERENT OPTIONS AVAILABLE. JOSH MAY EXPLAINS

Corporations around the world are currently leasing more than $5 trillion worth of assets, with 100 million lease contracts and one billion leased assets. Despite this, many organisations continue to manage their lease portfolio using spreadsheets. New software specifically designed to manage leases can enable companies to save both time and money, while providing a higher level of security.



Enter IFRS 16

PwC has described the principles-based approach set out in ASC 842 and IFRS 16 as the 'most complex accounting change in history'. Illustrating this complexity, the guidebooks scripted by the Big Four on this topic run to an average of 658 pages.

The adoption of IFRS 16 involves a number of considerations, including new conceptual frameworks, the need for intricate transactions recording at the asset level, the use of analytical processes and the arrival of a more interpretive approach. IFRS 16 also brings significant changes in terms of the accounting requirements for lease accounting:

- **Lessors** continue to account for leases as either operating or finance leases, depending on whether the lease transfers substantially all the risks and rewards incidental to ownership of the underlying asset to the lessee. An exception is intermediate lessors, where the classification of the sublease is determined with reference to the intermediate lessor's right-of-use asset, and not the entire underlying asset.
- **Lessees** have a choice of full retrospective application (ie restating comparatives as if IFRS 16 had always been in force), or retrospective application without restatement of prior year comparatives. This results in the cumulative impact of adoption being recorded as an adjustment to equity at the beginning of the accounting period in which the standard is first applied. It's also worth noting that a lessee can elect not to apply IFRS 16's recognition and measurement requirements to: (a) short-term leases; and (b) leases for which the underlying asset is of low value ('low-value leases').

Companies adopting IFRS 16 also have to handle a number of additional challenges, such as:

- Increased work volumes – doing more with less;
- Leasing is a constantly changing position, due to amendments, renewals, additions and disposals;
- Increasingly tight reporting deadlines;
- Accuracy;
- Strategic insight provision;
- The retention of valued staff;
- Knowledge retention; and
- Compliance or corporate governance.

What's more, companies typically have to do all this with little or no additional resources available beyond the initial adoption.

The need for visibility

As a result of the changes, investors, auditors and board members are now more closely monitoring trends and key performance indicators related to new leasing balance sheet items. Consequently, visibility into the lease portfolio is key for corporate treasury organisations.

Historically, companies have used spreadsheets or enterprise resource planning (ERP) systems to perform lease administration and lease accounting functions. ERP applications may be great for managing assets that you own, but they were not designed for tracking assets that you lease. The most popular tool for managing leases has been the humble spreadsheet, despite the considerable risk associated with this approach. Now that leases have to be reported on the balance sheet, and asset-level information captured, a most robust platform needs

to be employed if companies are to remediate the risk effectively.

Spreadsheet risk

We all use Microsoft Excel on a day-to-day basis, but it's clunky and has many pitfalls. *Forbes* magazine once ran an article titled 'Microsoft's Excel Might Be The Most Dangerous Software On The Planet'. According to the article, the Basel Committee on Banking Supervision and the UK's Financial Services Authority "have recently made it clear that when relying on manual processes, desktop applications or key internal data flow systems such as spreadsheets, banks and insurers should have effective controls in place that are consistently applied to manage risks around incorrect, false or even fraudulent data".

Excel has been a hugely helpful tool since its invention

It's a win-win: you are using new assets and it is more efficient

in the 1980s, but it's dated now; there's very little control and it's so easy to miss things. When it comes to something as critical as lease accounting, where the numbers involved are immense – many of our clients are working with billions in their platforms – it's not the tool to use. Many high-profile companies have fallen foul of Excel over the years. That's why it's critical to get the numbers right.

How leasing software can help

We believe every company should be looking to use a software application to manage its lease portfolio, in the same way that every company has a customer relationship management to manage sales pipeline and an application to manage travel expenses.

For example, LeaseAccelerator offers a suite of enterprise applications to manage corporate lease portfolios. Clients can use the suite to manage the entire life cycle of a lease – from the initial decision about whether to lease or buy to the end-of-term decision about whether to extend or terminate the lease. Furthermore, it shows the client what the leasing portfolio looks like at any given moment.

Sophisticated leasing software can also apply key rules and regulations at speed so that companies can be assured of complying with the latest lease accounting standards, such as IFRS 16 and ASC 842. Ideally, these rules and regulations should be applied as the leases are uploaded.

From a treasury perspective, this type of software can also help companies manage cash flow and forecast for the future. If you can manage your leases effectively, this can free up funds for the rest of the company.

Software can also play an important role in supporting lease vs buy analysis, which compares the outcomes for buying outright or leasing. Ensuring this process is performed consistently is a huge challenge for corporate treasury. Historically, many companies have developed spreadsheets to perform lease vs buy calculations, but the templates quickly fall out of date as the underlying assumptions and financial variables used in the calculations change on a monthly basis. As a result, business users might find themselves making capex decisions based upon last year's FX rates.

System-driven competitive sourcing can free up capital

With favourable tax incentives from the government regarding leasing, many organisations are looking at leasing over buying. It's a win-win: you are using new assets and it is more efficient.

LeaseAccelerator has a useful competitive sourcing platform that can help clients decide whether it is more cost-effective to lease or buy. If a client needs a new digger, for example, our system can automatically generate a request for proposal for equipment finance and take it to 500 lessors that will competitively bid to fund the lease. We see 6-12% savings by clients that use this platform.

When it comes to renewing the lease, the system also automates the process, advising you on the economics of purchasing, renewal and termination options. Workflows digitise the processes once you have selected the best option.

What are the benefits of automating the lease process?

Companies can benefit in the following ways:

1. It helps streamline your platform, saving you time and money. From a treasury perspective, corporate treasurers can see what a lease looks like from inception to the end of lease, including what payments are needed throughout the life of the lease. With leases having moved on balance sheet, spreadsheets are no longer appropriate for performing the accounting and management of portfolios. There is simply too much risk.

2. Easy access. There are real benefits to having a secure software cloud platform, as it allows users all over the world to access the same platform all the time. This is particularly beneficial for shared service centre operations and global operations.

3. Security is key. Security is a major consideration for all companies – particularly those with internationally sensitive information. Cloud-based platforms are likely to place a major focus on ensuring the security of customers' information.

4. It highlights problems immediately. Think about who in your organisation is ultimately going to be held responsible if things go wrong. It is unlikely to be the person putting the journal entries in – but it could well be the financial controller or CEO. Sophisticated lease accountancy software enables any issues to be flagged up immediately so they can be addressed.

5. It helps reduce risk for your business. Lease accounting software can help companies make sure the rules are followed – by guaranteeing the company is IFRS 16 compliant, for example. It also gives treasurers the tools they need to easily manage their budgets and balance sheets.

If in doubt about the importance of this topic, companies need only consider examples from the past five years. We have all seen the impact of poor accounting practice and the negative impact on businesses. Lease accounting software helps to eliminate one potential risk of accounting misstatement and similar repercussions.

Josh May is head of solutions in EMEA for LeaseAccelerator

IKON IMAGES

UNFUNDED LONGEVITY HEDGES TO HELP REACH THE ENDGAME

LONGEVITY HEDGING MAY BE A MEANS FOR SCHEMES TO DEVELOP THEIR LIABILITY-DRIVEN INVESTMENT STRATEGY

As defined benefit schemes mature, trustees are increasingly turning their attention to the endgame and how their scheme will service its liabilities over the long term. In many cases, this involves targeting a particular funding level sometime in the future through a combination of asset returns and deficit-repair contributions.

In order to maximise the certainty of reaching their target funding level, schemes must do three things well:

1. **Protect themselves** against the liability-related risks that could knock them off course;
2. **Generate sufficient growth** to reduce any deficit; and
3. **Manage liquidity requirements** to ensure they can cover outflows without being a forced seller of assets.

In relation to the first of these points, many schemes will already have in place liability-driven investment (LDI) strategies that mitigate their liability-related interest rate and inflation risks. However, few schemes will have in place any protection against the longevity risk inherent in their liabilities. As a result, many schemes are exposed to the impact of changes in life expectancy during the period before reaching their endgame.

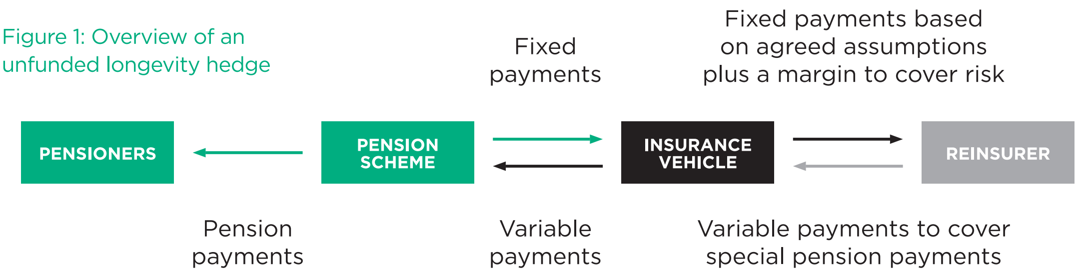
Introducing unfunded longevity hedges

One approach for schemes looking to hedge themselves against the potential impact of longevity risk, while retaining control over all of their assets, is to implement an unfunded longevity hedge (commonly referred to as a longevity swap).

An unfunded longevity hedge transfers the risk of pension scheme members living longer than expected from the scheme to an insurer. Figure 1 provides an overview of how an unfunded longevity hedge works.

Although the concept of an unfunded longevity hedge is similar to an inflation swap (in that it exchanges fixed for floating payments), in practice their implementation and ongoing management are very

Figure 1: Overview of an unfunded longevity hedge



For illustrative purposes only

different. For example, the payments under an unfunded longevity hedge are linked to the actual survival of a group of scheme members, rather than a quoted index.

What happens to the unfunded longevity hedge when you achieve your endgame?

For any scheme considering an unfunded longevity hedge, an important question to ask is: how might this affect my future plans? In particular, many schemes are targeting buyout as their endgame, in which case there will inevitably come a time at which they wish to buy out the members covered by the unfunded longevity hedge.

In this scenario, the two primary options are to either terminate or novate the unfunded longevity hedge.

In the case of termination, the value of the unfunded longevity hedge would remain with the in-the-money party, but the scheme would almost certainly be required to pay a potentially significant termination fee.

An increasingly viable alternative to termination is novation. In this scenario – if carefully structured and documented – the unfunded longevity hedge insurer drops away, but the longevity reinsurer remains and instead contracts with the buyout insurer. Under this approach, the portion of the buyout relating to the unfunded longevity hedge is priced using the longevity assumptions underlying the original unfunded longevity hedge, meaning that the scheme has been able to lock into an element of buyout pricing

Many schemes are exposed to the impact of changes in life expectancy during the period before reaching their endgame

many years ahead of the actual buyout. This reduces the risk associated with targeting buyout as the endgame.

As novation of unfunded longevity hedges becomes more commonplace, we anticipate that they will increasingly be seen as a stepping stone towards a buyout.

Given this, at Insight we believe longevity hedging can help pension schemes to evolve their LDI strategy, which will in turn increase the certainty of reaching their endgame.

Key steps in the implementation of an unfunded longevity hedge

There are a number of steps that schemes must carry out when implementing an unfunded longevity hedge, many of which are similar to those needed when considering an insurance buy-in.

1. Feasibility study
An initial feasibility study should be carried out in order to understand:

- Which liabilities should be covered by the unfunded longevity hedge;
- The potential cost of the unfunded longevity hedge; and
- The impact of the unfunded longevity hedge in terms of the risk that it removes.

2. Intermediation approach
The scheme must decide whether it will transact with the longevity reinsurer through either a UK-domiciled insurer or an offshore insurer; both approaches have successfully been used by UK pension schemes.

3. Data preparation
When the reinsurers are approached for a detailed quotation, they will want to receive member-level information for both in-force and historic scheme members. The preparation of this data could represent a significant amount of work and should therefore be started as early as possible.

4. Reinsurance brokerage
Pricing and key terms must be negotiated with potential reinsurers, with several rounds of bidding taking place before one or more reinsurers are selected for the transaction.

5. Transaction documentation
Once the reinsurer(s) has been selected, the transaction must be fully documented. This process will involve lawyers and advisers acting for all of the key stakeholders.

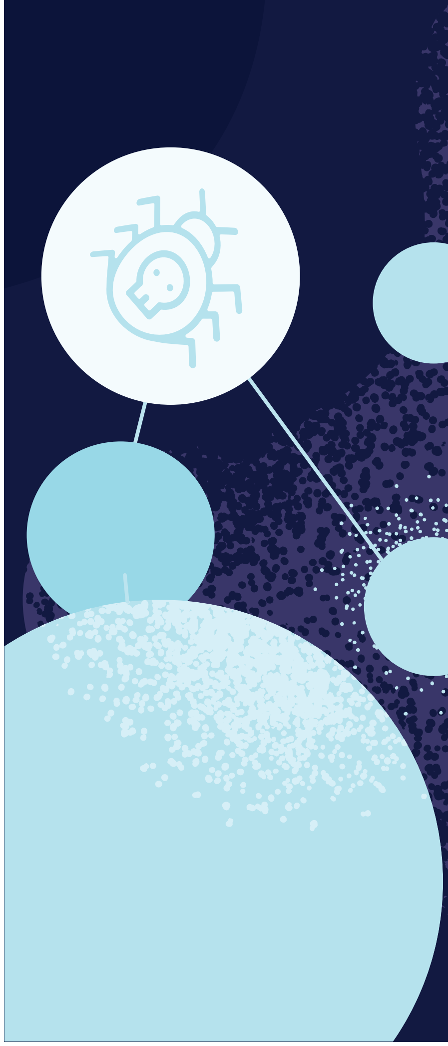
6. Ancillary services
In order to support the longevity transaction on an ongoing basis, the scheme will need to make the following appointments, all of which can be provided by a single third party:

- **Calculation agent:** Calculates the payments to be exchanged during the life of the transaction (ie net cash flows and collateral requirements).
- **Valuation agent:** Values the assets currently posted as collateral.
- **Collateral manager:** Moves collateral assets as required on behalf of the scheme.

Risk disclosures

Investment in any strategy involves a risk of loss, which may partly be due to exchange rate fluctuations.

Howard Kearns is longevity pricing director at Insight Investment



FAST, CONNECTED AND SAFER

CYBER DEFENCES THAT TRY TO LIMIT THE SPEED AND CONNECTIVITY THAT BUSINESSES DEPEND ON ARE NO USE IN THE WAR AGAINST THE HACKERS. PHIL QUADE MAKES THE CASE FOR A SCIENTIFIC APPROACH

Would you rather invest in a bulbous lead balloon or a sleek carbon-fibre glider? That seems like a no-brainer decision for someone who has even a rudimentary understanding of physics – or history. Like the enlightened investors in the global explorers of the 16th century, and funders of subsequent centuries' inventors who enabled humankind's Scientific Age, those who work with and influence the purchase of fintech today have a stake in the future of cybersecurity, enabling the adoption of necessary strategies and methodologies for our digital world.

Throughout history, we experienced our biggest disasters and disappointments when we ignored or underestimated such fundamental powers of our physical world as gravity, energy and matter, and the scientific laws that govern them. And we achieved our greatest breakthroughs and innovations when we harnessed those fundamentals.

Cybersecurity also has fundamental elements and, in order for it to be effective, those elements must form the foundations of all data protection. Those elements, at their most primary, are speed and connectivity. They are the energy and gravity, respectively, of data protection. Utilising them to the fullest effect is critical to data protection.

You never hear business executives say, "I want information technology to slow down my business and have everybody act independently." So, why should you continue to invest in cybersecurity that does exactly that? Instead, let's take a page from the masters of the physical world and start treating cybersecurity like a science – building on what we know works and discarding much of the mystery around it.

By advocating and approving a methodical and scientific approach to cybersecurity, we can prevent catastrophes and eliminate misguided spending on security add-ons that fail to make our organisations safer. If we adhere to the scientific principles of cybersecurity, the result is an approach to security that not only makes businesses' digital assets more secure, but also more efficient and effective drivers of business results.

Malicious cyber activity perpetrated by non-state actors is almost always financially motivated. In 2019, the average cost of cybercrime for individual organisations rose by $1.4m to $13m, according to a report from consultants Accenture. As shocking as that increase may seem, for many bigger brands and businesses, those numbers represent by far the low end of potential damages.

Prevention rather than cure

While an organisation's treasurers and accountants may have little insight into specific threats and capabilities, they can have a critical role in the protection of organisations, customers and investors. Like any crisis, the best time to mitigate those damages is before they occur, not after. By shifting perspective on what cybersecurity is and how it works, financial professionals play a critical role in preventing cybercrime, not just cleaning up the damages.

Treasurers are in a unique situation – the overseeing of a company's bank accounts – thus having the opportunity to see and potentially stop suspicious transactions. Treasury teams should be trained to look for financial crime, regularly test their disaster-recovery plans and, most importantly, remain vigilant.

In my book, *The Digital Big Bang*, I make an analogy between our universe's Big Bang of 14 billion years ago, and the digital big bang we're in the midst of today, using that analogy to contend that when humans learned (and started to embrace) the scientific laws that govern our physical world, we started to excel as a culture.

The most effective way to do this in our cyber universe is to treat cybersecurity as what it is – a science. Not a theoretical or metaphorical one, but rather an actual hard science that aligns with remarkable consistency

At its most basic, cybersecurity is about allowing or denying access to information

to the scientific method that has allowed humans to harness the most fundamental natural elements to forge the world we know today.

At its most basic, cybersecurity is about allowing or denying access to information. That is how information is protected. But if your cybersecurity strategy is not built around using the fastest, most integrated solution available, your strategy is fundamentally unsound. With more than 1.5 billion connected devices projected to be online by 2022, achieving safe connections at speed and scale is the dominant challenge of our day. But if security tools and tactics can't protect information at the rates at which digital business occurs, they will simply be turned off or ignored.

The digital world

Trying to protect an ever-increasing attack surface with solutions that aren't built around speed or integration is a little like trying to ignore gravity. Yes, life might be easier if we could simply float everywhere we went. But attempting to do that will result, without fail, in serious consequences. Unfortunately, many business leaders still find themselves in debates that are the equivalent of 'how much gravity should we be prepared to deal with?'

The greater challenge, though, is that – unlike the force of gravity – the cybersecurity scientific forces of speed and connectivity are increasing. We don't wake up to 10 times more gravitational pull than we experienced the day before. But cybersecurity professionals must do the equivalent – dealing with the relentless, even explosive, growth in speed and connection that drives business processes in what is casually called 'the digital world'.

That digital world now includes almost everything – financial data, our phone's location, the trading algorithms of hedge funds and the resiliency plans to our energy grids – making cybersecurity critical to personal, corporate and global security.

Thankfully, the latest innovations in integrated and fast cybersecurity are at the fingertips – ready to be 'discovered'. By helping the industry expand the science of cybersecurity by supporting fast, integrated solutions, finance departments are in a position to be the cybersecurity investor-equivalent of Spain's Isabella and Ferdinand, whose specific investments ultimately launched the Scientific Age. Finance professionals can help the cybersecurity explorers discover and leverage the science of cybersecurity by specifically only funding fast, integrated solutions that:

- Ensure that the elementary shortfalls of authentication, patching and training are taken care of;
- Enable the implementation of fundamental strategies that highly leverage segmentation, cryptography and access control;
- Address the advanced strategies such as visibility, inspection and failure recovery; and
- Accommodate the important soft stuff such as privacy, complexity and human frailty.

Rather than treating cybersecurity as a cost of doing business, we must establish it as a core business foundation necessary for a company to remain competitive and viable in a new world that is now deeply shaped – with incredible benefits and serious risks – by digital connection.

Phil Quade
is the CISO of Fortinet and author of *The Digital Big Bang: The Hard Stuff, the Soft Stuff, and the Future of Cybersecurity* (Wiley, 2019)

SIGNING UP

RYAN JONES EXPLAINS HOW THE BANK OF ENGLAND'S MONEY MARKETS CODE CAN HELP CORPORATES PLAY THEIR PART IN RE-ESTABLISHING TRUST BETWEEN MARKET PARTICIPANTS

Financial markets are based on trust and ethics. In the years following the financial crisis of 2008, this has not been popular opinion, but it is a key message of the Bank of England Money Markets Code. This new code of conduct will enhance trust and integrity in the UK money markets by helping businesses to be more transparent and ethical.

At Tesco, we have been publishing our own code of business conduct for many years and have always looked to lead on ethics and transparency. Treasury is no different. Following on from our recognition as Large UK Treasury Team of the Year in *The Treasurer*'s Deals of the Year Awards 2018, it seemed a natural step to be the first corporate to sign up to a code that will enhance both trust and ethics in the financial markets.

What is the code?

Rather than strict legal or regulatory obligations, the code sets out voluntary standards and best practice expected from participants in the deposit, repo and securities lending markets. It is aimed at UK market participants, defined by the UK's Financial Conduct Authority as companies that are regularly active in the money markets. FX transactions are not specifically included, as these are covered by the FX global code.

The code is split into four sections. Section one applies to all with guidance and key principles to promote a fair, effective and transparent market supported by resilient infrastructure. The remaining sections are aimed at each of the specific money market products – unsecured deposits, repo and securities lending.

The overriding principles of the code are:

- **Ethics** – UK market participants are expected to behave in an appropriate and professional manner;
- **Governance and risk management** – market participants are expected to have a clear and robust risk framework with clear oversight from senior management;
- **Information sharing, confidentiality and communications** – market participants are expected to be clear and accurate in their communications and to protect relevant information to support effective communication; and
- **Execution, surveillance, confirmations and settlements** – market participants are expected to exercise appropriate care when negotiating and executing transactions and to put into place effective and efficient processes to promote the secure and timely settlement of transactions.

This new code of conduct will enhance trust and integrity in the UK money markets

What is notable about this code is the concept of proportionality. It is not intended that every signatory complies with every control. Compliance is proportional depending on the type of entity signing up and its involvement in the markets. For example, a corporate would not be expected to have a committee that considers possible conflicts of interest, which would be normal for a bank. At the other end of the scale, a small corporate might have a simpler segregation of duties or controls structure than a large corporate has.

What does it mean for corporates?

Corporate treasuries can expect to be treated in a professional and ethical manner with regards to money market products traded with other signatories of the code. At the same time, the bank signatories to the code can be assured that their corporate counterparties have a professional and robust treasury team to give them comfort when transacting in money market products.

Adhering to the code will enable treasurers to highlight to their boards that they are benchmarking against industry-wide best practice. But more than that, this is an opportunity for treasurers to set the standard of best practice across the UK and help restore trust in financial markets.

For further information, please see a joint statement on the Money Markets Code from the Bank of England and The Association of Corporate Treasurers at bankofengland.co.uk/-/media/boe/files/markets/money-markets-committee/uk-money-markets-code-a-guide-for-corporates.pdf

Ryan Jones is treasury dealer at Tesco

SMOOTH PASSAGE

WILLIAM BARNS-GRAHAM EXPLAINS CHANGES TO ICC INCOTERMS 2020, CRUCIAL FOR ANYONE INVOLVED IN EXPORT OR TRADE FINANCE

The new ICC Incoterms 2020 rules were officially launched on 15 October, marking a significant moment for everyone involved in global trade.

The new rules, according to the International Chamber of Commerce (ICC), are easier to use and more accessible. They include more detailed explanatory notes and graphics that enhance the responsibilities of the importer and exporter as per each ICC Incoterms rule.

For those who do not know, ICC Incoterms rules are a 'global harmonised shipping system' and are therefore used for the trading of goods all over the world. If used correctly, they enable businesses to avoid uncertainty, minimise delay and facilitate smooth operations, transport and payment.

If you agree to use a term without understanding the full implications for your business, this can result in unexpected costs, obligations and delays.

So, businesses need to learn about the changes that are coming with ICC Incoterms 2020, and they should be looking at training to ensure they are using them effectively in the years to come.

Helping everyone in global trade stay on the same page

ICC Incoterms ultimately help everyone involved in international trade to stay on the same page when it comes to their risks and responsibilities concerning the movement of goods over borders.

Jeff Lewis, an export adviser and trainer for the Institute of Export & International Trade (IOE&IT), suggests that using ICC Incoterms helps to simplify processes around moving goods overseas for both exporters and importers.

"Using ICC Incoterms helps all parties to understand their risk and responsibility for a shipment," he explains. "It helps them to comply with the obligations outlined within the terms to ensure economical and efficient movement of goods.

"They eliminate inconsistencies in communication by giving all parties the same definition of specific terms, so they both clearly understand their responsibilities under any given contract. This results in ongoing positive and profitable business relationships."

Upon the release of ICC Incoterms 2020, ICC secretary general John WH Denton AO said of the new rules: "ICC Incoterms 2020 rules make business work for everyone by facilitating trillions of dollars in global trade annually because they help importers and exporters around the world to understand their responsibilities and avoid costly misunderstandings. The rules form the language of international sales transactions, and help build confidence in our valuable global trading system."

Ensure you have up-to-date knowledge

Among some of the more specific changes are:

- ICC Incoterms 2020 provides for demonstrated market needs in relation to bills of lading with an on-board notation and the Free Carrier (FCA) ICC Incoterms.
- ICC Incoterms 2020 aligns different levels of insurance coverage in Cost Insurance and Freight, and Carriage and Insurance Paid To.
- ICC Incoterms 2020 includes arrangements for carriage with own means of transport in FCA, Delivered at Place, Delivery at Place Unloaded (DPU) and Delivered Duty Paid.
- There is a change in the three-letter name for Delivered at Terminal to DPU.
- ICC Incoterms 2020 includes security-related requirements within carriage obligations and costs.

Exporters, importers, freight forwarders, trade financers and many more people involved in international trade will need to update their knowledge and understanding of these new rules in order to remain on the same page as each other when using them. An incorrect or out-of-date use of them could lead to uncertainty and delays relating to the financing, shipment and payment of exports.

The IOE&IT is delighted to be an ICC-licenced training partner, authorised to provide training on ICC Incoterms 2020. We are currently providing a one-day course giving a comprehensive overview of the new 2020 version of the rules, outlining the differences from the 2010 version.

The course enables UK businesses to be much more cost and risk aware when negotiating new business deals – whatever the future international trade environment holds for the UK after Brexit. So please do look at the site to find more information about our courses, which are taking place across the country.

For more information, visit export.org.uk/page/Incoterms2020

ICC Incoterms is a registered trademark

William Barns-Graham is senior content editor at IOE&IT

NOT MY CIRCUS NOT MY MONKEY

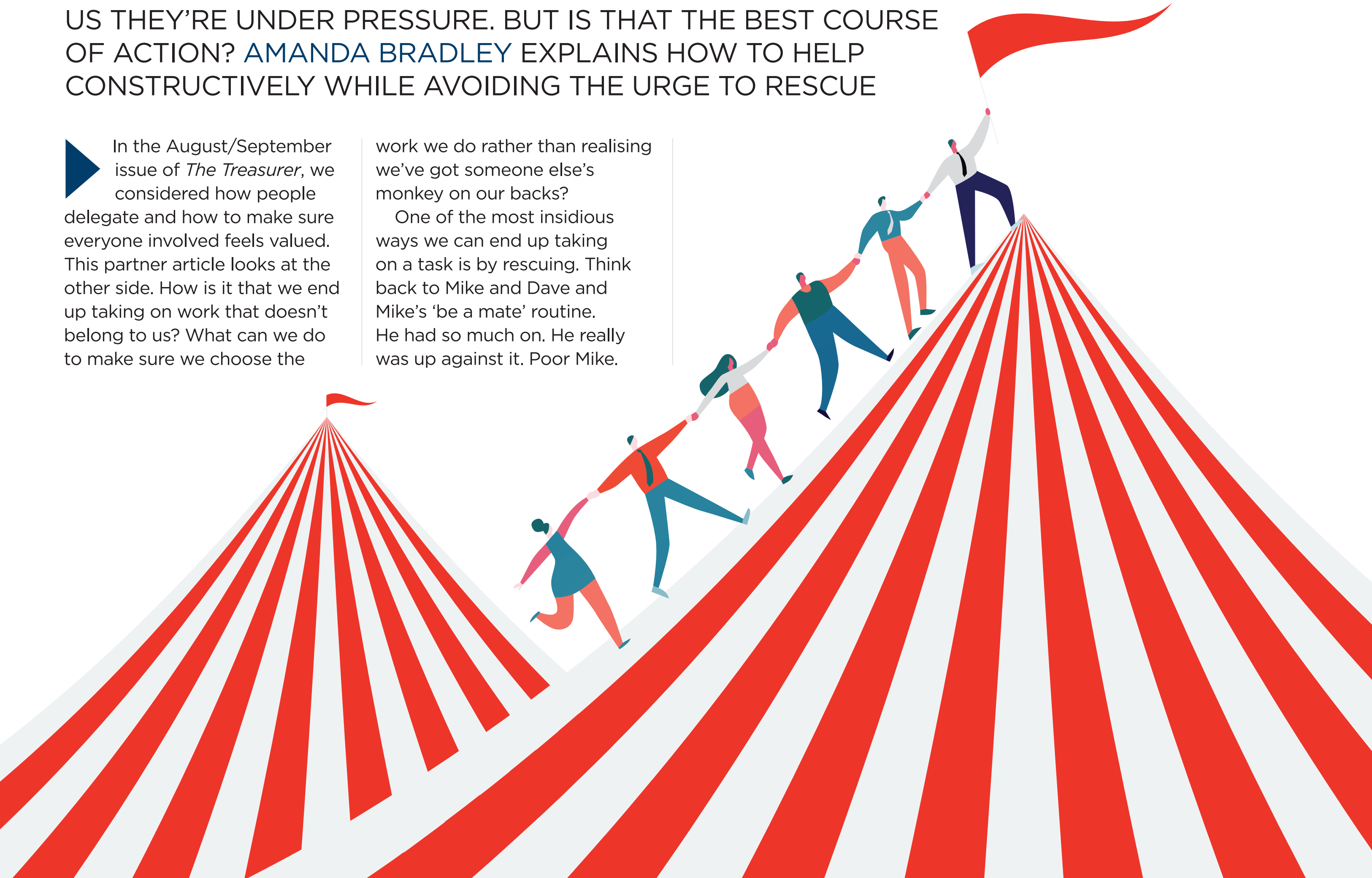
WE MAY BE INCLINED TO HELP OUT WHEN COLLEAGUES TELL US THEY'RE UNDER PRESSURE. BUT IS THAT THE BEST COURSE OF ACTION? AMANDA BRADLEY EXPLAINS HOW TO HELP CONSTRUCTIVELY WHILE AVOIDING THE URGE TO RESCUE

In the August/September issue of *The Treasurer*, we considered how people delegate and how to make sure everyone involved feels valued. This partner article looks at the other side. How is it that we end up taking on work that doesn't belong to us? What can we do to make sure we choose the work we do rather than realising we've got someone else's monkey on our backs?

One of the most insidious ways we can end up taking on a task is by rescuing. Think back to Mike and Dave and Mike's 'be a mate' routine. He had so much on. He really was up against it. Poor Mike.

In situations like these, the pull to rescue is triggered and before you know it, you've offered to take on some of his tasks. If Mike is your boss, it's tough to resist, but if Mike is your peer, it can be equally hard and you can find yourself taking on the task regardless.

So, how did your peer wangle that? Mike put out subtle signals to invite you to rescue him, maybe blaming someone else and creating a sense of belonging among the workers, saying: "Claire's asking me for so much – you know what she's like." He's clearly got so much on – he rattles off his tasks, fretting: "There's the cable rates wording she's asked for, and the dealing, and that's before I get to the ISDA agreements." Then he pulls the trump card. The victim's plea. "I just can't do it all. How am I meant to do it all?"



Mike doesn't even have to ask you to be a mate. It would be unreasonable for someone not to want to help, right?

The work monkey on Mike's back is climbing down from his shoulders and getting ready to leap. But it gets even worse. You're holding out your arms to the monkey to help it across to your back! What are you doing? Let's slow that monkey-gathering reflex and look at what's going on. You may be feeling guilty that you're not as busy as Mike, pride that he's trusting you by opening up to you, or frustration – you just want Mike to stop whingeing and go away. You might even feel sorry for Mike that he's just a bit too far out of his depth. But you are reacting. Some of us find it harder to stay detached from these kinds of invitations than others. We are particularly liable to rescuing if we've previously been rewarded for being selfless, kind or helpful.

Tough love

When we take on someone else's task, though, we're not just ignoring the workload we've already got – we're ignoring the other person's ability to do the job and sort it out for themselves. Mike agreed to the tasks originally. It's his circus. It's his monkey. He's the ringmaster. Taking it away from him might feel kind today, but it can leave him feeling dissatisfied and underappreciated later. To illustrate this, think about what Mike might feel. Perhaps there's initial relief that you've taken the ISDA agreements off his hands. But then a few weeks later, when your boss gives you the reward for having taken on Mike's task and helping out, he's going to feel pretty rubbish, especially when he finishes Claire's paragraph and realises he did have time to do everything else but was just feeling a bit crunched that day.

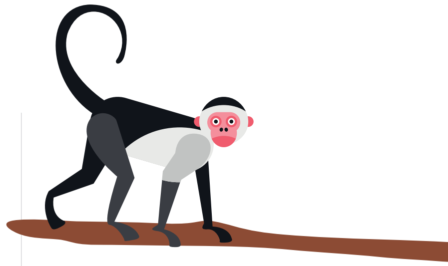
So, why do we do it? What do we get out of rescuing people? We get to feel like the star player who runs onto the field to save the match with an 11th-hour goal. If we're honest, we might even notice ourselves looking forward to being feted as the life-saving hero. And, importantly, we can also get to feel resentful, as Mike suddenly finds he's able to head home on time and we're stuck in the office. It all makes the day a little bit more dramatic, a bit more interesting – but ultimately a bit more stressful.

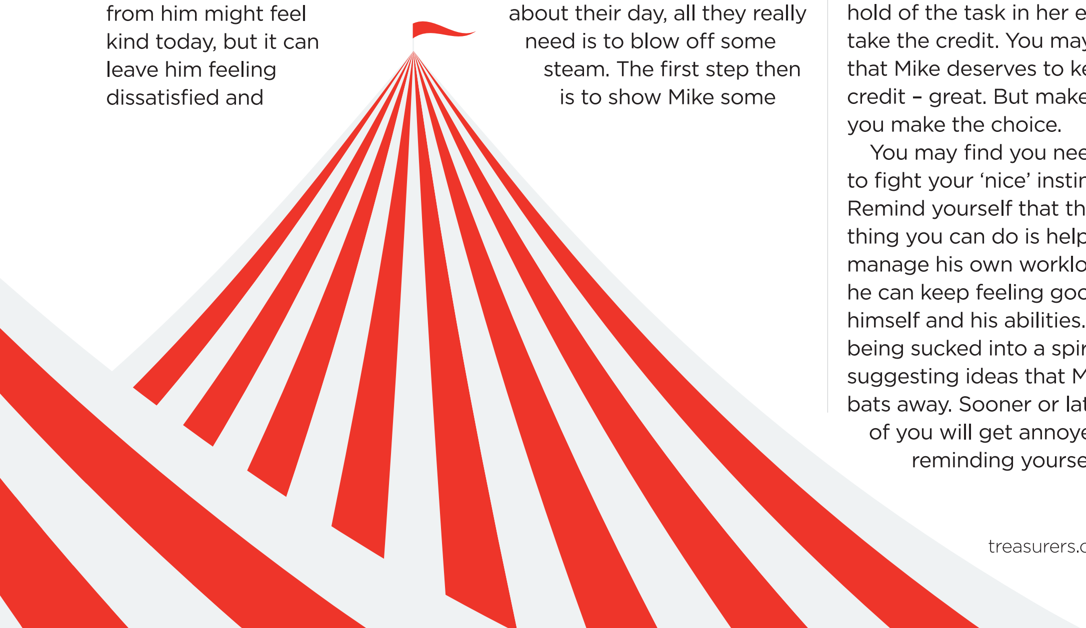
We also do it because we are nice. We are helpful and we are kind. And they're all good things to be. But there's another way to be nice that can help Mike with his monkey management without us taking responsibility for his task.

Sometimes, when people are having a bit of a whinge about their day, all they really need is to blow off some steam. The first step then is to show Mike some empathy. Avoid rescuing him at all costs – even the helpful "Why don't you try this...?" comment is still rescuing. So instead, empathise. "Sounds tough. Are you OK?" Asking a question can start helping Mike out of feeling overwhelmed and sorry for himself. You might get a simple response: "Yes, today's just busy. I can handle it all – I'm just having a bit of a moment." Or you might get an escalation of "I'm holding it together..." as he cranks up the invitation to rescue another notch. The important thing here is to make sure that you avoid the pull to rescue. Offer space to talk, but make it clear that Mike needs to ask for it. "I'm here if you want to talk through how you're going to handle this. You just need to ask." Your aim with this statement is to re-engage Mike's own problem-solving abilities.

It may be that Mike directly asks for your help. A clear request for help is great. It allows you to decide whether you have time to take on the task. Be honest with yourself and with Mike. You're taking ownership of a monkey here. Contract on exactly what you are willing to do and if it's the majority of the work, make sure Claire is aware that you're running the show now. If Mike is reluctant for Claire to know you're doing the work, beware. Mike may be hoping to keep hold of the task in her eyes and take the credit. You may decide that Mike deserves to keep the credit – great. But make sure you make the choice.

You may find you need to fight your 'nice' instincts. Remind yourself that the nicest thing you can do is help Mike manage his own workload so he can keep feeling good about himself and his abilities. Avoid being sucked into a spiral of suggesting ideas that Mike then bats away. Sooner or later, one of you will get annoyed. Keep reminding yourself that





Mike is a competent monkey wrangler, so he'll work it out.

Unintended consequences

But what if he isn't? Here's the tricky bit. If you start compensating for Mike by picking up the slack for him, ultimately it won't be his reputation that suffers. It will be yours. Being nice in business is a good thing. But being nice to the point of damaging your reputation is bad for everyone.

Think about the bigger picture. In a competitive marketplace where costs are being cut, employers need to know who is adding the value. If you're picking up the slack for someone, it means the business can't see that they have an inefficient asset and act accordingly. In other words, it isn't getting the best out of you because you're busy covering up the worst of Mike. Again, the kind thing to do could be to support Mike as he understands what he's finding hard and ask for help. Remember, it's his circus and his monkey. Not yours.

When it comes to taking on tasks, we need to make sure we know what we're getting into and make clear choices around that. Succumbing to our natural tendency to be nice can feel good in the short term, but in the longer term it can just leave us with too much to do and not getting the credit for it. And that's enough to drive anyone bananas.

Amanda Bradley FCT is an executive coach at Liberty EQ

ACT DIARY DATES

ACT EVENTS

■ **25 February, London**

CASH MANAGEMENT CONFERENCE

One of The Association of Corporate Treasurers' (ACT's) flagship conferences is back for the 16th year. The Cash Management Conference provides a unique opportunity to share best practice, hear practical case studies from leading corporates, learn from expert speakers and network with fellow cash management and treasury professionals.
treasurers.org/cash-management-20

■ **26 March, London**

THE ACT'S DEALS OF THE YEAR AWARDS

The Deals of the Year Awards play a crucial role in championing the outstanding work of treasurers and their contribution to their organisation's success. Watch this space for details on the winners.
treasurers.org/deals-of-the-year-19

■ **12-13 May, Newport, UK**

ACT ANNUAL CONFERENCE 2020

The theme of next year's ACT Annual Conference will be 'Balancing Risk: Championing Sustainable Growth' and will focus on how treasurers can balance risks, including ESG, while promoting sustainable growth and profitability.
treasurers.org/annual-conference-20

+ To attend an ACT event or webinar, book online at treasurers.org/events

+ For more information, email events@treasurers.org or call +44 (0)20 7847 2589

ACT TRAINING COURSES

■ **10 March, London**

THE NUTS AND BOLTS OF CASH MANAGEMENT

This one-day course explores the principles and practices of cash and liquidity management, and their importance to the business and treasury function.
academy.treasurers.org/training/cash-management

■ **11-12 March, London**

ADVANCED CASH MANAGEMENT

This course delivers a comprehensive look into practical cash management, bank account structures, payables and receivables, liquidity and finance, cash management solutions and real-life case studies.
academy.treasurers.org/training/advanced-cash-management

■ **17-19 March, London**

THE A-Z OF CORPORATE TREASURY

This overview of the fundamentals of treasury management is perfect for new entrants to the profession, bankers and those working alongside the treasury team. Learn about corporate treasury within the context of international markets, and build a deep insight into the core areas.
academy.treasurers.org/training/corporate-treasury

■ **23 March, London**

TREASURY IN A DAY

An introduction aimed at anyone new to treasury, looking to broaden their understanding of the function, or who wants to improve their ability to have better conversations with management, operations and banks or with treasurers as customers. You will learn about the role of a treasurer, and be introduced to key treasury concepts and commonly used financial instruments.
academy.treasurers.org/training/treasury-in-a-day

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WHY THE CAREER HUB IS AN ESSENTIAL RESOURCE

JOE SCATTERGOOD TALKS TO *THE TREASURER* ABOUT THE ACT'S GO-TO CAREER RESOURCE

As treasurers are increasingly asked to provide a more strategic role within their companies, the need to invest in business and behavioural skills alongside technical skills grows. Research such as The Association of Corporate Treasurers' (ACT's) *Business of Treasury* report shows that softer skills are particularly important. For new entrants, relationship and communication skills plus a deep understanding of the wider business context are key attributes that will help them to develop and grow their careers.

The need to develop business and behavioural skills to complement the treasury technical skill set is highlighted in the ACT's Competency Framework. The ACT supports members through the Career Hub, which provides articles, videos, assessments and other resources.

We asked Joe Scattergood, a fellow of the ACT and a chartered accountant, about his experience of using the ACT Career Hub.

"After achieving a first-class Mathematics with Economics degree, I trained as an ACA, working at Grant Thornton and then moving to BAA (now Heathrow Airport Holdings) once I qualified. I started the ACT qualifications while at BAA and moved to my first treasury role at DS Smith shortly afterwards. I have also held roles at Kier, Britvic plc and PageGroup, achieving Student of the Year in the 2017 MCT.

"My entire treasury career to date has been spent in multinational FTSE 250 companies where I have led some significant projects, including financings (inaugural bond issuance, Schuldschein, US private placement and bank debt – revolving loan facility and term loan), implementing treasury management systems, working capital programmes and cash management solutions. These projects are the part of the job that I get most satisfaction from and the reason I joined treasury.

"The Career Hub surprised me when I first visited, because of its scope. I have drawn on it a lot recently after my short career break to re-enter the treasury world and look for a new role. The hub offers great advice on job hunting, how to work optimally with recruiters and guidance on writing CVs and cover letters. I also found the career assessments useful as they allowed me to assess where I was in my career and where I wanted to go.

"After only recently discovering the full extent of the Career Hub's offering, I use it for the teams' development needs, as well as my own. The CPD resources and the Competency Framework are particularly useful, both aiding the setting of internal team goals, development plans and progression.

"In addition, as I am a member of two professional bodies, the CPD areas of the Career Hub help me to ensure I meet CPD requirements for both the ACT and ICAEW.

"I've also used the assessments, which help you understand your strengths, motivations, personality type, values and ideal workplace culture, all with feedback reports. These can help guide your career and ensure you are getting the right support.

"The task manager section is my own most-visited area. It is split between behavioural, business and life skills, each area offering the opportunity to add to your skill set. Refining presentation abilities, improving communication skills and strengthening commercial awareness are a few of the many bite-sized learning opportunities useful for treasurers at any stage of their career."

MORE ON THE CAREER HUB

You can find a substantial amount of resource around career guidance, job search and on personal and team development. It is also easy to use.

It is really useful at helping you to look at your development needs and setting development plans and goals. If you are in the early stages of your career, it provides useful guidance on how to navigate it successfully and how to develop essential skills.

The Career Hub helps to build key employability skills:

- Career e-learning courses provide articles, top tips, videos and Ashridge Executive Education Hult content on key behavioural topics, including communication, emotional intelligence and negotiation.
- Resources are matched against the Competency Framework so members can tailor their learning to their needs.
- The Task Manager tool enables members to work through areas of the Competency Framework and achieve a CPD certificate when they complete a programme.
- Job-hunting tools, such as a CV builder tool and interview simulator, provide useful resources when job hunting.
- Career assessment tests show you your areas of strength and development and include tests on learning styles, assertiveness and resilience.

careers.treasurers.org/members

FUTURE TENSE

CAROLINE STOCKMANN REFLECTS ON THE YOUNGER GENERATION AND WONDERS WHAT KIND OF LEADERS THEY WILL MAKE

As we come to the end of the year, it's traditionally a time of reflection. We like to look back, think about what we've done and consider what has happened in the world. But for me it's very different this year. Every waking moment, it seems I am thinking about the future and what it will bring. Our world in every sense of the word is changing so rapidly, it is hard to imagine what we will all be doing and experiencing in 12 months' time. And it intrigues me.

Something that sparked my interest particularly was the talk Baroness Susan Greenfield, the neuroscientist, gave at our Annual Conference in May. She explained how the brain develops and how in fact minds are being rewired as I write, due to the technologies surrounding us, which are causing them to adapt. I think about my 14-year-old son and the time he spends on computer games, like many of his age, and can see – now pointed out – that certain skills and attributes are being developed over others, and in a different balance from that of the past. This development could mean that in five or 10 years' time, those entering the workforce will have very different minds from their managers and leaders. And what will that then mean for those managers and leaders, especially if they cannot really accept that people are thinking and reacting very differently, dependent on their generation?

> Today's young minds can digest huge amounts of information

It seems that today's young minds can digest huge amounts of information, while we of an older generation assume by their behaviours that they are not paying enough attention, not digesting things and not taking things seriously enough. We were shocked that communication even had a cap of 140 characters at one stage, and of course a lot of it is now simply through images. Young people are not taking notes, but will suddenly regurgitate a load of information they have indeed absorbed, unbeknown to the worried parent.

So my next question to myself is: what kind of leaders will the 14-year-olds of today make? Certainly they will be very values-based, and want to work for organisations they can feel aligned to and proud of. They will be thinking about 'how' they want to work as opposed to 'what'. Their workday will be shorter and more varied in terms of location, with potentially a lot of work done virtually from home. They will make time for activities outside of work. Won't they? They will have more time, as machines will be doing more for them, at work and at home, and their work will be less mundane and repetitive. Surely?

But how will they learn to be great leaders in this environment, as leadership has to involve the followership of others? If they communicate virtually most of the time (look now at how many people are walking down the street, bumping into others as they are looking at their smartphone), when is the time that they will learn to look someone else in the eye and build a relationship? When will they start to understand nonverbal signals, and build rapport and trust?

Well, I guess this is a perfect example of the limitations of my own generation. We'd already worked hard to accept, for example, that trust and relationships can be built in many different ways, but being faced with the concept of a differently wired mind is entirely new territory (perhaps). It's the classic situation of failing to understand something we have not experienced ourselves.

So I can't wait until that year when I do look back and say: 'Aha! I get it now!'

Caroline Stockmann is chief executive of The Association of Corporate Treasurers

Machapuchare, Himalayas