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# In-house banking and beyond

The in-house bank is a powerful model, enabling companies to achieve major cost savings and efficiency gains. How can treasurers decide whether an IHB is right for their organisation?

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Wilson Koh

Group Treasurer

Grab

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EA to the Publishers
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Digital Content Manager
Joanna Smith-Burchnell

Senior Designer
Dawn Ingram

Founder & Director
Angela Berry

Chair
Richard Parkinson

| | |
|---|---|
| Switchboard | +44 (0)13 0462 9000 |
| Publishing | +44 (0)13 0462 9005 |
| | +44 (0)79 4665 6656 |
| Memberships | +44 (0)13 0462 9013 |
| Advertising | +44 (0)13 0462 9018 |
| Editorial | +44 (0)13 0462 9003 |
| Production | +44 (0)13 0462 9019 |

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# The digital spice of life

India. One of the fastest-growing economies in the world.

Four years ago, the Indian government made a decision that would change the lives for its 1.3 billion citizens forever. In making digital services available for all, the Indian government has not only improved the country's online infrastructure, it has increased internet connectivity and widened opportunities for business.

As a result, treasury has had to keep up with digital developments. To take an example, the government digitised the sharing of cross-border documentation between trade counterparties and customs offices through the 'fourth industrial revolution project', an online import/export portal that goes some way to easing the previously paper-heavy processes underpinning any trade involving foreign exchange.

In addition to this, e-commerce has become India's fastest growing channel for commercial transactions. The Indian e-commerce market is expected to grow to US$200bn by 2026, up from US$48.5bn in 2018. With core systems up and running, such rapid progress has forced treasurers to keep tabs on how a new digital India will impact their business and how best they can respond.

To a certain extent, banks will be able to support that exploration, but at the end of the day it will be down to treasurers to stay on top of all available options. After all, there is a lot that can be gained from a digital India, but there is still so much work to do.

But digitalisation is not an electric switch that a government can switch on at any time. Indeed, whenever we turn on the lights or drive to work, we are contributing towards increased carbon emissions and climate change – a hot topic for today's corporates.

We have a number of options when it comes to halting and possibly reversing the damaging effects of climate change. We can run around like headless chickens, panicking about it. We can refute the claims of scientists. We could do nothing because someone else will fix it. Or we can do something to help.

In this edition's Risk Management feature, 'Climate change and the treasurer', we look at the latter option from a treasury perspective, exploring the kind of affirmative actions and preventative measures that the community can take to help make a difference. The options here are greater than you'd perhaps think.

Of course, climate change is the 'Big One', but risks abound (as they always will). In our Technology article, we explore the hot topic of blockchain and distributed ledger technology (DLT). Blockchain and DLT has hit the news of late, particularly given recent developments over cryptocurrencies such as Facebook's Libra.

We explore just how blockchain has evolved in recent years, and whether or not it will become industry standard – it is certainly making waves in the shipping industry.

And finally, keeping the digital theme in mind, our 'Question Answered' article explores the hot topic of what does your IT department need to know about treasury? After all, it's a question that is so often asked in boardrooms across the globe. So, as the year comes to an end and we move into 2020, it's clear to see that the future of treasury will be a digital one.

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Interest rates have presented a bumpy ride for treasurers in recent years. With the trend set for 'longer for lower' what do businesses need to know to navigate these choppy waters?

# In-house banking and beyond

*The in-house bank (IHB) is a powerful model, enabling companies to achieve major cost savings and efficiency gains. How can treasurers decide whether an IHB is right for their organisations – and for companies with an IHB already in place, how can the structure be taken to the next level?*

Corporate treasuries have a number of models to consider when it comes to centralising activities, streamlining processes and reducing costs. One of the more ambitious of these is the IHB – a structure that is used to provide subsidiaries with services that would otherwise be provided by external banks. Often this includes models such as payments on behalf of (POBO) and receivables on behalf of (ROBO), whereby the IHB makes and receives payments on behalf of subsidiaries.

While the concept of the IHB has been around for decades, Asia's diverse regulatory landscape means that the region presents particular challenges for companies seeking to put this type of structure in place. But these challenges are not insurmountable – and many companies in Asia have taken advantage of this approach to gain major benefits.

With that in mind, what can companies achieve by adopting an IHB, what challenges may they need to overcome – and how can companies leverage technology and best practice to take an existing IHB to the next level?

## What is an IHB?

"IHBs follow a clear strategy of treasury transformation and are often the foundation of further centralisation such as payments factories, central FX trading and funding," explains François-Dominique Doll, Executive Director, Global Treasury Advisory Services at Deloitte Southeast Asia. He adds, "The ultimate goal of leveraging an IHB account is to keep external bank accounts to the bare minimum and only at the group level."

Byron Gardiner, Executive Director of Treasury Solutions, Transaction Banking at Standard Chartered, says that the term 'IHB' describes "a sophisticated treasury structure used to provide financial services such as cash management, risk management (FX, interest rate, and commodity hedging), core funding and working capital to business units or affiliates within an organisation."

Gardiner explains that in the classical treasury model, treasury arranges banking facilities on behalf of affiliates. "Banks subsequently contract directly with the affiliates even though treasury may negotiate the facility agreements and manage activities such as loan draw downs and FX trades on behalf of the affiliates," he notes. Under the in-house banking model, in contrast, "the IHB contracts directly with affiliates to provide them with loans, FX, cash management, and other services. In turn the IHB buys these services from external banks where necessary but tries to internalise as many transactions as possible."

## From cost savings to controls

In this way, an IHB can deliver a variety of benefits, including operational efficiencies, better treasury controls and cost savings. Indeed, Gardiner says that IHBs "typically deliver multi-million dollar savings by consolidating various financial activities." Other potential benefits include the ability to rationalise the company's bank account structure and reduce external borrowing, as well as the opportunity to standardise and automate processes.

As Gardiner notes, companies may also be able to achieve significantly lower FX costs "by internalising FX trades and other hedging activities which permits the netting of these exposures." He adds, "The IHB subsequently only covers its net position with the market rather than the gross FX needs of the underlying business units."

Latifah Yusof, Group Treasurer at Malaysian satellite television provider Astro, explains that setting up an IHB in February 2019 has enabled the treasury to consolidate and streamline its banking and cash management operations, greatly reducing the company's reliance on multiple external banks. The new structure provides business units with services including POBO, ROBO and foreign exchange deals. External banking services to effect the POBO and ROBO are provided by the mandated IHB partner, Standard Chartered Bank Malaysia, with the support of SAP's In-House Cash module.

As a result, Astro group companies participating in the IHB have seen a reduction in banking fees, finance charges and account maintenance fees. Other benefits include process standardisation and better visibility over the group's cash position. While Yusof notes that "change is not easy," she says that support from Astro's senior management, financial reporting, tax, corporate assurance and IT teams – as well as from external auditors – has made the implementation a success.

## No time like the present

The concept of the IHB has been around for some time. As Doll explains, "in-house banking is not a new concept and has been well-established in some corporations for more than 20 years now."

Nevertheless, there are several reasons why this type of model may have particular value in today's market conditions. Gardiner cites the drive for efficiency, noting that "the philosophy of doing more with less and generating higher degrees of operational and strategic value from the treasury department is a common theme amongst clients we are speaking to today." He also says that the increasing globalisation of Asian MNCs means there is more need for treasury to transform itself to "more effectively manage the geographically diverse and complex business needs of a global organisation."

In addition, Gardiner notes that improvements in systems connectivity are enabling greater levels of integration between treasury and other finance units, alongside "the availability of advanced treasury management systems (TMS) incorporating 'IHB ready' functionality that can be deployed relatively quickly in support of the sophisticated needs of these structures."

Gardiner explains that these improvements in technology and connectivity enable companies to build a more compelling business case for an IHB model – not least because the initial investment and the integration and implementation of the necessary technology "have become less arduous and available at a quantifiably lower all-in cost."

## Caveats and challenges

Nevertheless, it's important to note that an IHB isn't the right structure for every company.

Anton Abraham, Head of International Advisory at Bank of America, says that the typical profile of companies looking to implement IHBs include large corporations with multiple business units and operating across multiple countries and regions. "They are also comfortable with high volumes of intercompany transactions – and are likely to be seeking much more standardisation and integration in terms of what they do with the treasury function," he adds.

In addition, companies in Asia will have to navigate certain region-specific challenges when setting up an IHB. Doll points out that in contrast to the Eurozone, currency exchange is a consideration in Asia – which "may result in the combination of multiple pool levels across different countries. The balances of these pools can then be converted onshore or offshore in the pool header currency, which is usually in one of the G5 currencies."

"In Asia, the primary area of concern lies in restrictions over FX and intercompany loans, which effectively limit the use of traditional POBO/ROBO structures," adds Gardiner. "In many parts of the region, the use of local currencies for cross-

## Is an IHB right for your organisation?

Bank of America's Abraham recommends that companies consider the following six points when considering whether to implement an IHB:

- **Who?** Is an IHB right for you or your company?
- **What?** Key considerations include the company's current legal entity structure, regulations that may affect the decision and the company's capacity to take on a multi-year transformation project.
- **Which?** Which entities/functions are in scope? Abraham notes that companies tend to include wholly-owned or majority-owned subsidiaries – and that it is rare to include joint venture or non-majority-owned entities in the structure due to the associated complexities. In terms of which functions are in the scope of the structure, Abraham says that IHB typically include areas such as FX, liquidity management and funding.
- **Where?** Where is the most suitable location for the IHB? Considerations include legal and tax, the sophistication and depth of financial markets and the availability of incentives.
- **Why?** What are the expected benefits? These are likely to include cost savings, enhanced visibility, increased control and the ability to negotiate more effectively with banks.
- **How?** How will you go about implementing the structure? Abraham emphasises the importance of gaining full support from C-Level executives including the CFO, CEO and potentially the board. He notes that an IHB project may involve significant change up to and including review and restructuring of the company structure, which also requires input from legal and tax.

border transactions is restricted to specific situations such as import/export trade settlement, capital injections and dividend payments."

Gardiner also cites regulations on cross-border intercompany loans in many of these jurisdictions, noting however that there is often more flexibility with foreign currency denominated loans. "Furthermore, the types of transactions that can be processed through non-resident accounts by the IHB are often restricted," Gardiner says. "The combination of these factors means IHBs are unable to use an account held in their own name to process POBO/ROBO transactions."

In addition, Gardiner says there are a number of practical issues that can affect the operation and success of IHBs in Asia, such as:

- **Management fees** – some countries may place limits on the fees that can be paid to an IHB for services rendered, meaning independent legal and tax advice is important.
- **Data restrictions** – some markets have strict regulations which may require the IHB to replicate systems, hold data local or exclude the country from the IHB structure.
- **Limited clearing information** – some clearing systems cannot carry information about the underlying paying party, which "creates potential issues in recognising receipt of payment or raising issues of 'payment masking', leading to a block on these types of payments."
- **Central bank reporting** – some central banks require additional information about the purpose of payment transactions.
- **Special payments** – some payments, such as payroll, taxes, customs and duties, may require access to special clearing systems or offline lodgement processes, meaning process customisation may be needed.

## Setting up an IHB

When it comes to setting up an IHB, Doll emphasises the importance of a strong banking partner that can support the set-up with appropriate liquidity management products, such as cash pool sweeping, notional pooling or virtual accounts.

"A policy review is also necessary to define what will be the service cost undertaken by the treasury centre to provide IHB services," says Doll. "This can be done by defining more competitive rates than banks or charging a flat fee."

In addition, Doll says that changes in cash accounting may be required to reflect the intercompany flows in the general ledger. "The value of technological solutions such as TMS is reinforced as they have inherent capabilities to provide automation and reporting on IHB balances," he adds. "On the other hand, banks are closing the technology gap, by providing reports and data which are also available in a TMS."

## Taking it to the next level

While companies have been using IHBs for a number of years, that's not to say the model cannot be enhanced – and for companies with existing structures in place, it may be worth considering how best practice can be harnessed to take in-house banking to the next level.

Deloitte's Doll notes that a leading practice is to "keep treasury operations lean and simple: minimal external flows, minimal bank accounts." He adds that while the first stage of an IHB is to replicate the pooling structure, "companies can use the core setup to handle intercompany payables and receivables with multi-lateral netting, settle treasury transactions such as FX internally, and aim to process all external payments on behalf of subsidiaries through treasury or payment factory accounts." However, Doll points out that the latter can still be challenging in a number of Asian countries linked to non-resident accounts.

Standard Chartered's Gardiner notes that IHBs can deploy different variations of the POBO/ROBO model in order to overcome the challenges of operating in Asia and cater for the different regulatory landscapes in markets across the region:

- For the least restricted markets, this may mean adopting a global POBO/ROBO model, with the IHB processing payments and collections through its own accounts.
- In restricted markets, companies may need to use an account in the name of a local entity for local currency payments, while using the IHB to process foreign currency payments and collections.
- In the most restricted markets, Gardiner says: "the IHB may simply operate as a processing agent, utilising the accounts held by each legal entity to process payments and collections on an In-The-Name-Of basis." Nevertheless, the benefits of standardised processing, automation and greater control can still be considerable.

## Setting up a funding desk

Beyond these models, Bank of America's Abraham says that some companies which already have an IHB are increasingly turning their attention to the possibility of adopting a funding desk model. By establishing a single platform for all group funding activities, both internal and external, companies can reduce the total cost of group funding. As Abraham explains, this involves aggregating all group cash flows and excess balances in order to maximise funding efficiency and minimise third-party funding.

"I don't see companies setting up funding desks unless they have pretty sophisticated technology in place," comments Abraham. "You need to have full visibility into your funding requirements and all of your credit lines. The objective is to ensure that management has a complete understanding of all the group funding activities and all the costs associated with that funding."

Abraham explains that implementing a funding desk may also involve hiring suitable talent – and that may mean that companies need to recruit from banks or hedge funds in order to find people with the right skills and experience. That said, the level of complexity associated with this model may vary from company to company. Abraham points out that companies which are simply trading or managing liquidity and FX flows will find it simpler to set up a funding desk than companies that may want to use more sophisticated financial instruments.

Last but not least, companies with IHBs may consider improving the efficiency of their structures by harnessing technology such as AI and robotic process automation. "I would expect that most treasuries that are looking at funding desk arrangements will also be looking at these sorts of automation opportunities," Abraham concludes.

**James Carter**
CFO, Alkane Resources

Alkane Resources is an Australian gold production company with a multi-commodity exploration and development portfolio. Listed on the Australian Stock Exchange, the company has a market capitalisation of almost AU$400m and holds cash and investments of around AU$80m with no debt.

# Extracting yield from operating cash

*Like many others in the sector, Australian mining company Alkane Resources has to set aside a portion of surplus cash to cover any unexpected costs or delays – but achieving a return on short-term cash in the current low interest rate environment is not a given. The solution: working with a trusted partner to achieve security and flexibility without compromising on yield.*

## Problem…

Companies in the mining industry face particular challenges when it comes to managing cash flow and working capital. The sector is highly capital intensive – as James Carter, CFO at Alkane Resources explains, when companies embark on a new mining project, they could spend 12-18 months' worth of working capital developing a project before receiving any cash flow.

"Another unique aspect of the mining industry is that whether you're mining in an open pit or starting a new mine underground, is you can be somewhat at the mercy of the natural environment we work in," Carter explains. "An inevitable challenge is making sure you have sufficient working capital to cope with unforeseen circumstances or delays."

As a result, mining companies typically need to have several months' worth of cash set aside in case of delays. For Alkane, which has cash reserves of around AU$80m, a key challenge in the current low interest rate environment was getting the best return on surplus cash – a challenge that the company has tackled by breaking the available cash down into segments. For cash beyond one month, Alkane tends to use higher yielding term deposits. "But for up to 31 days, we have our cash on call to pay for trade creditors, contractors and payroll," says Carter. "For that type of cash, you're getting pretty much a zero return."

Consequently, Carter was looking for a product that would enable the company to achieve a better yield on its short-term cash, without incurring additional risk. "What was important for me and the board was to work with a reliable and investment-grade counterparty that offers same- to next-day liquidity and seamless redemption," Carter explains.

## …Solved

Unusually in the mining industry, Alkane has been working with the same transaction bank for the last 50 years – so the board had little experience of embarking on a new relationship. But Carter, who joined the company in October 2018, was able to draw upon his previous knowledge and experience to navigate the process and recommend a suitable partner.

"I had previously worked with J.P. Morgan Global Liquidity when I was at another company during the depths of the global financial crisis – and while many financial institutions were failing, J.P. Morgan was always there as a reliable counterparty," he explains. "That gave me a lot of comfort when recommending J.P. Morgan Global Liquidity to the board. I had worked with them before, finding the process of investing and redeeming cash very easy."

Carter says that the chosen solution provides a return on funds "far in excess of a regular call deposit", with funds available on a same day or overnight basis. "It offers us great flexibility from a reliable counterparty and gives us a higher yield," he adds. "So it ticks all those boxes. And we just couldn't find a competing solution in the market."

Carter adds that the investment process is straightforward to set up and the solution provides a yield without tying up short-term cash. "Given that we've been opportunistic with investments that we've done from time to time, it gives us more flexibility to have that extra money there," he says. "Meanwhile, our segmenting approach means our longer-term cash is held in term deposits."

With Australian-based gold companies currently performing well, Carter notes that many companies in this sector are generating a lot of surplus cash. "While some are paying dividends, I suspect a number of other companies would have the balance sheet to warrant looking at this type of solution," he concludes.

# Grabbing the opportunity

## Wilson Koh
Group Treasurer

Grab

Heart, hunger, honour and humility – these are the four core principles that Wilson Koh, Group Treasurer at Grab lives by on a daily basis. These values help keep him grounded and always ready to face the many different challenges that come his way.

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*Grab is Southeast Asia's leading super app that provides everyday services that matter the most to its customers. Its mission: solve key problems in the region whilst improving the lives of millions. Through its open platform strategy, Grab works with partners to provide safe, accessible and affordable transport, food, package, grocery delivery, mobile payments and financial services to millions of people in Southeast Asia. Headquartered in Singapore, Grab is Southeast Asia's first decacorn.*

Today, the Grab platform sustains a dynamic ecosystem, connecting Grab seamlessly with its partners and consumers to order food, buy tickets, book accommodation and deliver packages. It enables its drivers and merchants to be paid instantly, whilst also being able to access banking services.

With such an array of differing businesses, serving completely different markets, it is down to Wilson Koh, Group Treasurer of Grab, and his team to keep the company running smoothly.

"The way I think about running corporate treasury is that if we are doing a good job, nobody will even realise we exist or the extent of the value we create. Our consumers and partners deserve the very best, and it is imperative that we earn the right to serve," he says.

### From a bright spark…

Koh's journey into treasury began back in high school. Although he scored distinctions in physics, chemistry and biology, his real passion was understanding just how businesses work and what makes them tick, as well as interpreting financial statements and how management decisions impact equity prices.  There was just one issue however, he wanted to obtain a qualification that allowed him to start work as soon as possible.

"University takes far too long to complete and it can be expensive," he recalls.  "I didn't want to burden my parents." He therefore opted for the Association of Chartered Certified Accountants (ACCA), a globally-recognised professional qualification which he could complete in two years.

But many people warned him that ACCA is notorious for its low pass rates, and the norm is to do ACCA after securing a university degree which acts as a fallback.  Koh just shrugged it off.  "You've got to go all-in to what you have set your mind to do," he says.  And so he did – and passed with flying colours.

He was quickly snapped up by one of the big four accountancy firms, Ernst & Young (EY), in Kuala Lumpur, Malaysia, where he was responsible for overall planning, organising, leading and control of assignments, and statutory reporting for both listed and private companies.

"When I joined EY, it was at the onset of the Asian financial crisis, so I did a lot of really interesting work.  There were many Asian companies that were desperate for help, especially those funded by foreign currency debt; my early days were spent doing lots of advisory and restructuring work on top of audit and assurance."

## …to a shining star

After close to four years working for EY, British Petroleum (BP), one of the largest oil companies in the world, came knocking.  It was a no-brainer for Koh to join BP as it was an established multinational corporation.  He ended up staying at the company for over 17 years in a wide variety of roles.

He started with a management reporting role, supporting the fuels business in Malaysia and part of the newly-established shared service centre.  He then moved on to do various projects and team-leading roles.  "It was refreshing to see the transition from an audit firm to being part of a large corporate and gaining new insights and putting into practice the skills I obtained from EY," he says.

## A decade of treasury at BP

"From very early on I saw the advantages of moving across different parts of BP's functions/businesses and I definitely had to unlearn and relearn as I went along," he muses.  "The final transition into treasury was very interesting for me.  I did so many different roles every year, from project management to implementation of systems, whilst also working closely to build a regional business intelligence warehouse."

After several years with BP in Malaysia, as part of his personal development it became obvious that Koh needed to look beyond Malaysia for a new challenge, to assess what the options were and how he wanted his career to progress.

After looking through the BP career portal for many months, he applied for two jobs at BP – a finance job in London, and a treasury job in Hong Kong.  "To my surprise the Hong Kong offer came first, and that's how I ended up in treasury."

So, in 2005, five years after he joined BP Malaysia, Koh moved with his family to Hong Kong as an expatriate, taking up the role as Finance Manager, Treasury Asia Pacific. Indeed, he loved his new role so much he stayed in the position for more than a decade.

## Grabbing the next challenge

And then one fine sunny day ("it's mostly sunny in Singapore!" he jokes) someone from Grab called him.  "My first reaction was: why in the world would a start-up call me and expect to convince me to move from a global energy company?"  Truth be told, the timing was uncanny, as Koh was already toying with the idea of moving on after so many years with BP, as he wanted to stretch himself more.  He had indeed been watching closely how Grab was solving real-life transportation issues.

"People often ask me, why did I move from BP, a very established company with very clear processes and systems to a large start-up like Grab?  To be honest, I got a bit restless with BP," he says.  "The opportunity to become Group Treasurer for Southeast Asia's leading super app and playing a part in improving lives for millions of people every day was simply far too attractive an offer to turn down."

In October 2017, Koh started his Grab journey, initially tasked to professionalise the function and build a solid team – a role he loves to this day.  He manages financial risks at group level and is also very hands-on with issues at the country level. "That includes liquidity, FX, counterparty risks and investment risks," he says.  Another big part of his role is to make senior management aware of these risks and make recommendations for mitigations and steps that need to be taken to address them.

## Strong faith and values

Key to Grab's success, Koh notes, are the culture and values that every employee and customer treasures.  "While we put the customer at the heart of everything we do, Grab is very different from a typical company, as the guiding values and principles are pivoted on the individual at the very personal level," he says.

"To take an example, at BP the main core values were safety, respect, excellence, courage and one team – at Grab it is what we call the '4Hs': heart, hunger, honour and humility." Koh adds, "When I heard about the 4Hs, I knew instantly that Grab was the place for me as this is aligned with my biblical values and my Christian faith, which serves as the foundation for my life."

These values are something that Koh extols daily.  "One needs the heart to do things for the right reason and serve the community, the hunger and grit to push ourselves to raise our game and not settle for less, the honour to be ethical and keep to our word, and the humility to own up to our mistakes and be better versions of ourselves every day."

## Creating impact for growth

When Koh first joined the Grab group two years ago, it was just a ride-hailing company to meet the need of moving people safely and affordably from point A to point B (GrabTaxi/GrabCar/GrabBike).  Since then, Grab has grown massively, moving into the e-wallet space to encourage cash to cashless transactions (GrabPay), food delivery service (GrabFood), package delivery service (GrabExpress), financial services (GrabLending) and more.

Koh adds, "A key challenge as Group Treasurer is that I have to understand how cash flows in and out of different businesses, entities and countries across Grab and how to manage risks across many levels." For context, he points out that Southeast Asia is one of the most culturally diverse regions in the world. The numerous countries within it account for more than 640 million people and there are large economic realities separating the region – such as differing central bank regulatory frameworks.

This presents challenges in managing cash, liquidity and treasury activities, ranging from cross border payments, reducing the costs of funds-in and funds-out, foreign exchange transactions, counterparty risks, investments and financing to bank account management, across the different markets while conforming to different local regulations and constraints.

Grab adopts a hyperlocal approach to businesses by setting up a local presence in every country that it operates and works closely with relevant government authorities, including tax and banking regulators.

## Accessing local strategic partners

In addition, what has been very effective for Grab is the forging of strategic partnerships where the intentions are aligned and access deep local expertise. This is due in part to the fragmented nature of the markets and the dynamic operating environment across Southeast Asian countries.

Koh recognises that there are differences in social trust between people, as well as the way they interact with cash and cashless channels, coupled with the way they transact with banks across markets.

As Grab expands its service delivery platform in the region, leveraging these strategic partnerships has enabled it to drive innovation, ensuring that quick-to-market, regulatory-compliant and market-relevant products and services are deployed.

He highlights the criticality of finding the right partners. "When Grab started a lending business, it found a joint venture partner to enable the target business model," he says. "When we wanted to deliver an insurance service offering to our consumers, we found a joint venture partner."

In Thailand, the Philippines and Malaysia, Grab has also established banking partnerships. This has helped Grab scale up very quickly in each of these markets and to be 'plugged-in' on any changes to rules, regulations and practices which may present risks (or opportunities) to its emerging currency exposures, counterparty credit risk or yields.

## Harnessing the power of technology

In November 2018, Grab forged a strategic alliance and partnership with United Overseas Bank (UOB) in Singapore to access a variety of banking solutions as part of a broader commercial collaboration. It rolled out an instant payment solution for settlement with driver partners and merchants, using a straight through processing (STP) application programming interface (API). This greatly enhances the payout experience for the driver partners and merchants on a 24/7 basis.

"The partnership with UOB has created many wins for Grab's finance and treasury teams – from enhancing driver and merchant payment experience to reducing costs, improving cash visibility, standardising documentation, executing FX, leveraging industry-standard SWIFT interfaces and other banking requirements via a single platform," he explains.

"I'm absolutely delighted that this partnership was recognised as a Highly Commended Winner in Treasury Today Asia's Adam Smith Awards Asia 2019 under the category of 'Harnessing the Power of Technology'. This is testament to and validation of our strategy of leveraging local partners and technology to create impact," he adds.

## Team leadership

Koh stresses that there is no way he can do this alone; he needs to win the hearts and minds of the fun-loving and capable team who subscribe to the same vision that he holds dear. In addition to demonstrating the 4Hs in everyday interaction with stakeholders and building trust, he points to five key attributes that make a well-rounded treasury professional:

- A strategic mindset – knowing where the value proposition is in the context of where the organisation is heading.
- Growth mindset – thinking ahead of scalable solutions to manage growth aspirations.
- Costs – being mindful of what the drivers of costs are and striving to optimise where appropriate.
- Risks – being aware of the current and potential financial risks that may occur and preparing mitigating actions.
- Insights – harnessing technology to produce relevant and high quality data-driven insights.

"I'm also a strong believer of continuous learning and improvement," he notes. "My team members are encouraged to learn new skills such as data analytics, network to share ideas and take charge of their own career aspirations. In other words, being proactive to future-proof their careers in the VUCA (volatility, uncertainty, complexity and ambiguity) environment," he adds.

So what does Koh think the future holds for treasury? "The future of the finance/treasury workforce will be in the hands of those who can harness the power of technology and data analytics, combined with depth of the various finance competencies, to offer useful insights to their stakeholders," he adds.

Koh concludes: "I'm blessed to have come this far and am enjoying my role as Group Treasurer at Grab. To be a part of the Grab journey has truly opened up my eyes; it has shown me that if you have the hunger, the drive and the passion, you can, in your own way, make a difference to people's lives every single day."

It's a message he wants every treasurer to hear.

# Yes we can: treasury's response to climate change

*Few could have escaped the mounting need to take action to halt and possibly reverse the damaging effects of climate change. Can corporate treasurers really do anything to help?*

Climate change is the biggest threat the modern world faces. Experts and critics may argue about the causes (and some deny it), but the increasingly extreme weather systems seen around the world and the rise of the oceans are bad news for us all.

Individuals, businesses and governments have myriad of other issues to tackle, but the bottom line is that if climatic conditions deteriorate much further, those issues may not matter. An existential crisis? Maybe, for future generations.

## Doubt it?

Changes in global temperature are nothing new. In the last 650,000 years there have been seven cycles of glacial advance and retreat. The start of the modern climate era was signalled by the end of last ice age, about 7,000 years ago.

Most of these climate changes are attributed to small variations in Earth's orbit, subtly altering the amount of solar energy received by Earth. However, according to the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report, the current warming trend has a "greater than 95% probability" of being man-made.

Information gathered by NASA indicates that Earth's average surface temperature has risen by 0.9°C since the late 19th century. The majority of this increase occurred in the past 35 years, with the five warmest years on record taking place since 2010.

What will be the legacy of the current inhabitants of this planet, then? Swedish teenager Greta Thunberg is doing a remarkable job in raising awareness of the risks posed by climate change. If someone so young can stand on the world stage and hold politicians to account for their paucity of action, then surely worldly-wise professionals, including treasurers, can take a stand too.

Of course, few can garner the kind of public profile achieved by Thunberg, but all can take action of some kind. And it needs everyone's input. Globally, US$90trn will be needed by 2030 to achieve sustainable development and climate objectives, according to figures from the City of London Corporation's Green Finance Initiative.

The precision of the figures is uncertain, but the scale of the potential problem for humanity is not. This is why the Paris Climate Agreement and the UN 2030 Agenda both ask for commitment from financial institutions and businesses to align their financial flows with a pathway towards low-carbon and climate-resilient development.

## Fringe benefits

The motivation to make a difference should be self-evident. Some companies make a much larger contribution to global warming than others, and it is reasonable to recognise that responses can be relative.

But we live in challenging times and bludgeoning people with the cold, hard facts of climate change, when it is perceived that there are more immediate issues to tackle (poverty, inequality, financial crises et al), is not always the most persuasive method. Sometimes a 'what's in it for me' approach is necessary (as if survival of the human race was not sufficiently persuasive).

According to DARA (an independent non-profit organisation working for populations affected by armed conflict and natural disasters) and the Climate Vulnerable Forum (a global partnership of leaders of countries most vulnerable to climate change), climate change is already costing US$1.2trn a year, with five million deaths each year related to weather impacts and a carbon-intensive economy. Without strong action, the UK government 'Stern Review on the Economics of Climate Change' predicts that costs could be equivalent to at least 5% of GDP each year globally, or up to 20% of GDP regionally.

On a more positive note, and at a corporate level, if tackling climate change is viewed in terms of sustainability and environmental, social and governance (ESG) policy, then there is some evidence that putting it high on the agenda improves financial performance.

In 2018, Switzerland-based academic publisher, MDPI, produced a paper, 'The Impact of Sustainability Practices on Corporate Financial Performance: Literature Trends and Future Research Potential', presenting an analysis of the impact of corporate sustainability on corporate financial performance. Using content analysis techniques to examine current research, it concluded that from a total of 132 papers from "top-tier" journals, 78% reported a positive relationship between corporate sustainability and financial performance.

There is some evidence too for treasurers and CFOs that sustainable finance is prudent from a purely financial perspective. Within the investor market there appears to be a continuing and significant growth in mandates, to the extent that demand outstrips supply of 'green' assets – lending or bonds. This can lead to a pricing advantage for issuers.

## Awareness

To what extent are treasurers professionally aware that they can do something about climate change? Not enough, says Anne van Riel, Head of Sustainable Finance, Americas at ING Capital. "Typically, treasurers are not very aware of the company's sustainability initiatives unless it concerns the budget," she notes. "Many do not know that their company is externally rated on its ESG performance either."

It's not that treasurers are not aware per se of the problem that is climate change. When van Riel and her team meet treasurers to discuss sustainable finance opportunities she says they appreciate the bigger picture. But with many sustainability investments, the impact is long-term and quantifying that can be difficult. It needs someone to relay outside experience to bring it into perspective.

"As we provide the viewpoint of investors and other stakeholders, they are better able to justify internal initiatives," explains van Riel. The impact is akin to the whole being greater than the sum of its parts. "When sustainability teams have a closer relationship with treasurers and their goals are better aligned, the company can make a bigger positive contribution towards climate change goals." Amplify this the world over and many small but co-ordinated activities suddenly have a vastly more powerful resonance.

It is not hyperbole to suggest that treasurers knowing they can make a difference will play an important part in the success of every global movement such as the Paris Climate Agreement and the UN 2030 Agenda.

## Treasury action stations

The most important role the treasurer can play is that of internal alignment and acceleration of certain investments or initiatives. "One client told us they had several initiatives internally to improve energy efficiency of their operating facilities, but by making the greenhouse gas reduction KPI transparent and linked to their financing, they would likely execute on it faster," says van Riel.

This is not the only way in which treasurers can make a difference; other approaches are emerging as the understanding grows. Indeed, another important development is that of the increased focus of credit rating agencies on this topic. Van Riel notes that both S&P and Moody's are starting to show how ESG factors are affecting the credit rating. "That will automatically bring the ESG focus on the agenda of the treasurer and incentivise them to engage internally on initiatives."

It's important for treasurers to work with other functions in their organisations in the response to climate change. An organisation is most successful if its sustainability initiatives have strong senior management support and are carried out by the entire organisation, van Riel believes. "To make sure ESG factors are identified and positive actions are undertaken, coordination and cooperation between all different functions is key."

In this context, it is difficult for treasurers to make the right sourcing decisions in isolation from operations or design. "I think they increasingly understand the role they play to ensure the company has access to liquidity and is able to raise funds from a wide range of investors. Communicating ESG strategies is increasingly important in that respect."

It does make a difference. By having a good ESG score (as defined on a broad level by the ISMA's Green Bond Principles, and on a sector-by-sector basis by the likes of the major ratings agencies, the banking sector's own experts and third parties such as Sustainalytics) it allows investors to come on board who otherwise would not invest. Diversification of funding is in itself a prudent risk management tactic; an ESG/sustainability led approach opens up the market.

If there was any doubt about this, consider, for example, that Swiss Re, one of the world's largest institutional investors, announced last year that it was moving its entire US$130bn investment portfolio to ESG indices.

Legal & General Investment Management (LGIM) is also taking a strong stance. "The investment risks surrounding climate change have become so urgent that, for the first time, we are going beyond solely engaging with companies in order to hold them to account on the issue," Meryam Omi, LGIM Head of Sustainability told Treasury Today Group.

"All companies, whether they emit carbon or not, need financing. They require banks, pension funds and insurance companies to buy their shares and debt. How they invest or allocate capital holds the key to financing a 2°C world rather than a 3-4°C world, because what gets financed today is the world we will build for the future." (She is referencing the impact of average temperatures rising above pre-industrial levels.)

Companies that fail to embrace the transition to a low-carbon economy by demonstrating adequate strategy, governance and transparency will be excluded from LGIM's new Future

## Off the rails?

Not all experts agree with the doomsday scenario. World Meteorological Organisation (WMO) Secretary-General, Petteri Taalas, offers a moderating take on the subject. He told Talouselämä magazine in Finland this year that he disagrees with "climate extremists" who call for radical action to prevent a purported apocalypse. He believes that we should "consider critically, and with reservations, the thoughts of experts" before becoming overly anxious or adopting a radical stance.

"While climate scepticism has become less of an issue, now we are being challenged from the other side," he said. "Climate experts have been attacked by (radical climate alarmists) and they claim that we should be much more radical. They are doomsters and extremists. They make threats."

For Taalas, "it is not going to be the end of the world. The world is just becoming more challenging. In parts of the globe, living conditions are becoming worse, but people have survived in harsh conditions."

> If businesses get this right, then climate change is not just a risk but also an opportunity to drive value and grow the business.
>
> David Nayler, Financial Institutions Industry Practice Leader, UK & Ireland, Marsh

World Fund, says Omi. "In all other funds where we cannot divest, we will vote against the chair of the board to ensure we are using one voice across all of our holdings. This is the first time we have pledged to do so on a global scale for the issue of climate change."

## Bank action

Banks have a major role to play here and they need to commit fully to the cause. ING has launched an approach that will begin steering its €600bn lending portfolio towards alignment with the Paris Agreement's re-asserted target of preventing global average temperatures from rising 2°C (it was actually ratified by 192 countries as part of the 1997 Kyoto Agreement).

Known in-house as the 'Terra' approach, this bank is using open source technology, developed with the 2° Investing Initiative, a global think tank on developing climate and long-term risk metrics and related policy options in financial markets.

Terra is a scientific approach to measuring the technology shift needed across certain sectors to keep well below the 2°C target. It works on the basis that real progress on decarbonisation is dependent not on emissions targets per se but on major changes to domestic energy, industrial and innovation policies, and that these efforts should be supported at source.

In the automotive sector, for example, lowering emissions must be complemented by changed manufacturing models (the efficacy, in this respect, of electric motive power, where it needs charging from national grids, is debatable but progress will be made). Terra effectively quantifies the gap between current and future practices, defining what needs to shift, by how much and when. With other banks having been invited to join the programme, funding development along these lines will gain momentum.

A number of banks, united under the Banking Commission of the United Nations Environmental Programme Finance Initiative (UNEPFI), have also launched a positive impact manifesto. This is a commitment from members – notably also including some investors – "to think more holistically about their role in the economy, society and the broader environment".

## Hoping for the best, preparing for the worst

"The business impacts of climate change risks should be assessed and modelled in similar ways to any other business risk," advises David Nayler, Financial Institutions Industry Practice Leader, UK & Ireland, Marsh. This happens through the process of identification, assessment, mitigation and monitoring.

He suggests four key questions to ask to begin testing whether an organisation is prepared:

- **Is our strategy climate ready?** What effects might different climate futures have on our ability to execute our current purpose and strategy? How will the products and services we currently offer, and the markets we operate in, need to change?
- **Can our existing risk management, resilience and corporate governance controls cope?** How will changes in climate alter the balance of investments the company might need to make in its risk management and resilience?
- **Will our key assets be protected?** Which assets might be affected the most? Does climate change alter the balance of investment in asset management; will it drive the need for divestment, early decommissioning or changes in maintenance regimes?
- **Will we still be able to rely on our current supply chain?** Who are your most critical suppliers, and how vulnerable are they to the effects of climate change?

"In our experience, this approach, coupled with scenario analysis, is the most common across a range of industries," notes Nayler. However, he believes that much of the scenario work is still in its infancy and sees the work on developing relevant scenarios as "ever-evolving".

This means that the use of the output in the strategic decisions at executive level can sometimes be limited, he maintains. "This is partly because climate change as a risk can impact many parts of the organisation; perhaps the only comparator being people or conduct risk as a risk that straddles the whole organisation and involves the risk, financial, investor relations, reputational concerns and executive functions."

## Adapt and survive

In many ways the climate change issues are not new issues per se, comments Nayler, but there is an increase in frequency, severity and locations, and the resultant financial and reputational impacts. Engaging with the best futurists, and understanding the current realistic thinking, is, he says, important.

"Businesses need to adapt their risk frameworks and response options to consider the longer-term 'creep' issues as well as the short-term shocks, to horizon-spot for the next regulatory issue, clash or change of view, and to engage with the changing consumer views," he explains. "If businesses get this right, then climate change is not just a risk but also an opportunity to drive value and grow the business, while creating a positive environmental impact."

Of course, continues Nayler, it's important to remember that the available models reflect the current climate. "While the scientific community agrees that climate change is happening, opinions can differ on the consequences and speed of change. This means, currently there is no 'easy solution'."

# Unblocking supply chains with DLT

*With myriad complex processes, rules and regulations, trade has long remained highly paper-based, with manual processes that often seem resistant to change. Can distributed ledger technology (DLT) and blockchain ever become the industry standard – or are the barriers simply insurmountable?*

It goes without saying that many multinational companies have incredibly complex global supply chains. From the start of a trade transaction to its completion, each and every trade transaction must be verified, recorded and co-ordinated – often via intermediaries.

But what if these transactions could be verified autonomously? It would certainly remove a whole layer of complexity from this vast sector. This is the promise that DLT and blockchain have presented – but widespread adoption of this technology is likely to take considerable time and effort.

Recently, the Singapore branch of CIMB Bank Berhad completed a trade financing transaction for dairy imports using internet of things (IoT) cargo sensors and iTrust's DLT platform. Meanwhile, promising initiatives have brought a wide range of benefits, from streamlining cargo checks to tracking the provenance of food. So is this the shape of things to come?

## DLT vs blockchain

Before exploring the topic, it's worth exploring the differences between DLT and blockchain. At their heart, DLT and blockchain share a conceptual origin: they are both decentralised and digitised logbooks of records.

However, given the wealth of information out there about blockchain and DLT, these terms are too often used interchangeably. In fact, blockchain is a specific type of DLT, in much the same way that an Audi is a specific type of car.

The term DLT refers to the technological infrastructure and protocols in place that allow various participants to access and manage records of data inside a decentralised database, or ledger. Think of it as a spreadsheet that develops through time.

As there is no central authority that acts as arbitrator or monitor, each participant can initiate, confirm and update information contained within the ledger. These records are only ever stored when all parties come to a consensus.

In comparison, blockchain is one form of DLT. Because of this it can exist without the need for a centralised authority or a server managing it – rather it is managed by peer-to-peer networks. Data on the blockchain is grouped together and organised in highly-encrypted 'blocks', which are linked together and secured with a cryptographic signature called a 'hash'. The quality of the data therefore cannot be manipulated.

## Shipping – competition or co-operation?

On the opening day of the Lloyd's List Transparency in Shipping Forum last September, Peter McBurney, Head of Technology Consulting at Norton Rose Fulbright, compared the impact the internet had on businesses 30 years ago to the potential that blockchain has today. "If you lived and worked through that era, you will understand what an upheaval the internet was for businesses," he said. "Blockchain is revolutionary technology and will transform industries across every sector."

One such industry is in shipping – a notoriously competitive one which involves many parties with conflicting interests. Recent figures from the International Chamber of Shipping state that there are currently over 50,000 merchant ships operating across the globe at any one time.

Indeed, the international shipping trade has changed comparatively little since American businessman, Malcolm McClean, invented the intermodal sea container in 1956. Prior to this, the loading and unloading of freight was an expensive and often time-consuming task. With the advent of McClean's sea container model, however, it became significantly cheaper and much more efficient to transport goods across the globe.

Unfortunately, what McClean's revolutionary new container model did not solve was the cumbersome and bureaucratic processes that come with the transport of goods, including extensive paperwork. In 2017, research by IBM and Maersk found that the cost of handling documentation is so high that it can exceed the cost of transporting shipping containers. Indeed, the research found that a single container moving from Africa to Europe requires nearly 200 communications and the verification and approval of more than 30 organisations involved in customs, tax, and health-related matters.

## Setting a new course

These exchanges of information can take many forms, such as sales contracts, charter party agreements, bills of lading, port documents, letters of credit and more. And the documents involved can range from electronic files to hand-written delivery notes. Speaking at the Lloyd's List Transparency in Shipping Forum, Sally-Ann Underhill, Partner at Reed Smith, backed up the findings of IBM and Maersk's research. "The container side of the industry is seriously looking at blockchain," she said.

This is because blockchain has the ability to make things so much cheaper. "In the container industry, savings of US$300 per container are not unheard of by using blockchain technology," Underhill claims. "If a business has really reduced and low margins, these savings can make the difference between having a successful end of year or a really bad one."

These potential savings simply back up the fact that, as the international trading model has become even more bureaucratic with the introduction of new rules and regulations, aspects of the shipping industry are in desperate need of a solution. This is particularly pertinent while geopolitical tensions, economic concerns and political uncertainty continue to cast a shadow over international trade.

For champions of blockchain and DLT, this technology has the potential to reduce not only the bureaucracy involved in global shipping, but also the amount of paper used – and, more importantly, the associated cost. Last year, a consortium including AB InBev, Accenture and Kuehne + Nagel successfully tested an ocean shipping blockchain solution and found that it reduced data entry requirements by up to 80%. Furthermore, the solution simplified data amendments, streamlined the checks required for cargo and reduced the burdens and risk of penalties associated with custom compliance.

But can the benefits of DLT and blockchain extend further than just reducing paperwork, costs and compliance? The retail sector has shown they can.

## Savvy shoppers, savvier retailers?

The high street is dying, or so they say. Earlier this year, research by PricewaterhouseCoopers (PwC), compiled by The Local Data Company, found that Britain's top 500 high streets saw net closures of 2,481 in 2018. The report attributed this in part to the high costs and risks of operating on the high street, compounded by advances in online retail.

If this trend continues, many more retailers will need to adapt their online systems and processes to cater for this shift in behaviour. But can blockchain provide the answer?

According to UK Finance, the collective voice for the banking and finance industry, retail losses due to online fraud totalled £265.1m in 2018, a rise of 29% on the previous year. For Ciaran McGowan, General Manager of trading platform we.trade, the solution is smart contracts on a blockchain network.

"The ideal scenario is a solution for all parties to be connected together," says McGowan. "By using a blockchain smart contract, a trade is created where there is effectively a contract between the buyer, the seller, the buyer's bank and the seller's bank – so effectively, when all the conditions of the contract are met, then a payment is triggered."

For retail it is this ability to track products across the supply chain that is a boon to the sector. But not only does blockchain have the potential to reduce fraud, it can also verify the provenance and origin of a product, eliminate the risk of counterfeits (particularly in luxury goods) – and it has already proven itself to have benefits when it comes to food safety.

Last year, Walmart teamed up with IBM to produce a food safety blockchain solution, built using open source DLT Hyperledger Fabric and running on IBM Cloud. Prior to launch, it took Walmart approximately seven days to trace the source of produce. With the new blockchain solution this was reduced to 2.2 seconds – making it much less likely that infected food will reach the consumer.

"Our customers deserve a more transparent supply chain," said Frank Yiannas, Vice President of food safety for Walmart in a statement. "We felt the one-step-up and one-step-back model of food traceability was outdated for the 21st century. This is a smart, technology-supported move that will greatly benefit our customers and transform the food system, benefitting all stakeholders."

Indeed, corporate social responsibility (CSR) and sustainability is growing in importance for today's retailers and customers alike. Last year, the French supermarket chain Carrefour also launched Europe's first ever food blockchain. Starting with free range chickens, each product label now features a unique QR code which consumers can scan with their smartphone. Not only does this provide them with information about the product, it also shows the journey the chicken has taken –

> How do you get the right number of players onto the network to actually make it viable? I think that's the biggest challenge rather than the technology itself.
>
> Sarah Hazzledine, Managing Director, Accenture

from farm to store. In addition, the code gives the name of the farmer, what feed was used and whether the animal has been treated with antibiotics, for example.

## The state of play

Regardless of the potential for the global trade industry, blockchain is far from maturity, and there are many challenges that must be overcome before it can be successfully applied across the board.

Perhaps the greatest challenge for the trade industry is the need to gain universal adoption. There is no doubt that the ability to exchange information accurately and safely across any supply chain is a boon to stakeholders. After all, the more stakeholders take up the technology, the more viable and practical it becomes, and this should lead to it becoming the industry standard. However, organisations are at varying levels of digital readiness, and not all recognise the benefits of DLT and blockchain collaboration.

This is a point made by Sarah Hazzledine, Managing Director at Accenture: "This is a question that desperately needs an answer, as adoption is all about getting the network effect. How do you get the right number of players onto the network to actually make it viable? I think that's the biggest challenge rather than the technology itself."

Hazzledine notes that across several consortiums in the industry, adoption has been tentative due to ambiguity around how competitors can collaborate on blockchain initiatives. "Those that have been successful to date consider the needs of all parties," she says. "Players in the shipping space don't want to join a network that is seen as owned and driven by an industry giant."

It is a point endorsed by Lloyd's List's Managing Editor Richard Meade: "Maersk and IBM are currently the shipping equivalent of Uber, so unless the industry embraces blockchain and comes up with their own solutions, they will simply become Uber drivers – and that's not quite as profitable I would say."

Other critics of blockchain argue that inherent problems with blockchain technology itself will need to be ironed out before it can be applied on such a large scale. The first is latency. Some implementations of the technology have not scaled up significantly enough to cope with the huge demand in processing transactions, and as a result performance has suffered.

In addition, with so many transactions happening across the globe, there are serious issues with the amount of energy required to power the network. For treasury, this weighs heavily on its organisation's sustainability agenda. Although the amount of paper used will be reduced dramatically, it could be at the expense of increasing $CO_2$ emissions.

However, Hazzledine points out that this is not a concern for private networks. "Public blockchains such as Bitcoin are resource intensive due to the amount of energy required for data miners to do proof of work – but this is not indicative of what is going on in private networks where proof of work is not required."

## The journey ahead

Another problem for global trade is the increasing regulation in different industries. For example, standards and governance in the shipping industry differ greatly from the road haulage industry. As such there will likely be a number of different networks established at different times, all serving different goals.

This is highlighted in a recent research paper on blockchain's potential by Christine McDaniel, economist and trade expert from the Mercatus Centre at George Mason University. "Integrating blockchain technology in the customs process will require technological updates and the cooperation of customs officials, governments, shippers, and suppliers," the report claims. "This cooperation may be harder to achieve in industries where particular businesses work to manipulate public policy or economic conditions as a strategy to increase profits."

Therefore a collaborative mindset across each industry is needed, and a culture of embracing new opportunities from this new technology should be nurtured. This can be achieved if IT departments gain the knowledge and practical first-hand experience required to implement it across the board.

Enno-Burghard Weitzel, Head of Product Management Trade Services at Commerzbank echoes this sentiment: "In the future, it will be possible to completely integrate all corporate enterprise resource planning systems, including all supply chain stakeholders on DLT based platforms," he says. "This will lead to an increased level of transparency on the whole supply chain and enable end-to-end data flows. Furthermore, in the not-too-distant future we will be able to create digital twins, thereby linking the real world and the digital world."

While certain issues will need to be ironed out, there remains hope that they can be solved within the next two to five years. Indeed, McGowan is very positive for the future, as he believes that there will be a revolution with the emergence of the IoT, artificial intelligence (AI) and blockchain.

"I expect blockchain will be more than just 'farm-to-fork' scenarios across the global trade industry as suppliers and customers will soon be able to track the correct weight of the cargo and even its current temperature," he says. "Should the goods be damaged on delivery or be of poor quality, AI will be able to calculate the right amount of discount applied."

Regardless of the thoughts of supporters or critics of blockchain, the benefits are so significant that it seems likely the technology will have a major role to play in shaping the future of global trade. After all, Rome wasn't built in a day, but its empire changed the world.

# KNOW YOUR CUSTOMER – NO LONGER A HEADACHE?

There have been many proposed solutions for solving the issue of KYC over the years.  Most have either struggled to deal with the increased complexity of the challenge, or were simply not fit for purpose.  As a result, corporate treasurers have been crying out for an all-in-one solution to solve the KYC headache, and as such, global financial institutions and multinational corporations have had to collaborate and agree upon one centralised utility.  Otherwise, all parties risk further fragmentation and complexity.

The fact remains that KYC has always been a slow process.  Despite today's digital age, the process of 'knowing your customer' remains not only repetitive, but lengthy and cumbersome.  Thomson Reuters 'Cost of Compliance' report 2017, found that it takes 24 days to complete the customer on-boarding process.  There is a further challenge for global corporates when it comes to utilising a variety of banks across the world in different jurisdictions.

So, in today's era of constantly evolving regulation and KYC obligations, both corporates and banks know the importance of simplifying the maintenance process of exchanging KYC data.  To meet their evolving needs, SWIFT has stepped up to the challenge by recently extending its KYC Registry to corporates.

"Corporate treasurers cite KYC as one of the top three challenges they face in their bank relationships," says Marie-Charlotte Henseval, Head of KYC Compliance Services at SWIFT.  This is because many corporates hold accounts with several banks and subsidiaries, and this has resulted in time-consuming and costly reviews of KYC information.

Unfortunately, data is too often disseminated across multiple sources, and it can be incomplete or out of date.  As a result, banks have to repeatedly follow up and update information with corporates.  The extension of SWIFT's KYC Registry to corporates will make the process more efficient for both corporates and banks.  Henseval continues: "This unique and well established utility already delivers huge benefits to banks, and its extension to corporates will extend them the same advantages.

The opening of SWIFT's KYC Registry to corporates is expected to address the inefficiencies arising from differing jurisdictional requirements and the lack of standardised data.  According to John Colleemallay, Senior Director Group Treasury & Financing at Dassault Systèmes: "KYC for Corporates is a dream come true for all treasurers, considering the heavy workload involved in providing the same documentation several times in multiple formats to our banking partners.  We look forward to having a secured shared registry where we can more easily and rapidly complete the KYC processes."

Today, banks are already able to access correspondent bank's information through a standardised questionnaire (referred to as the KYC baseline), including the latest Wolfsberg Correspondent Banking Due Diligence Questionnaire (CBDDQ).  As a consequence, banks are now able to implement enhanced and reasonable standards when it comes to cross border and correspondent banking.  Not only is due diligence being proved, it reduces the need for any additional data requirements.  With the extension of the registry to corporates, banks will also be able to access their corporates client's information through a standardised questionnaire, designed with banks and corporate treasurers from around the world.

SWIFT'S initial focus will be for the 2,000 corporate groups and their related entities that are already connected to the SWIFT network, simply because of tried and tested and long-standing relationships.  However, the intention is to extend beyond SWIFT-connected corporates once feedback has been received.

Once the new Registry is finally opened to corporates, it is expected that SWIFT will start exploring collaboration with regional utilities, and partners that can be plugged into or integrated with the KYC Registry, in order to provide a full customer experience to banks.  SWIFT's ultimate goal is to create a one-stop-shop for banks to access information about all their clients with multibanking needs, irrespective of their size.

However, there are still many issues to be solved.  For example, local regulations will need to be met to ensure their support, and it remains to be seen if the business model based on fees for consumption only will work out on the long run.  Indeed, there are liability issues for SWIFT if it takes on responsibilities for certifying beyond the information the corporates are keeping ownership for.  However, if SWIFT can iron out these issues the new KYC Registry might prove to be the cure for corporate treasurers' KYC headaches.

To find out more, why not join the KYC Registry Engagement group where you can keep abreast of all developments in the project.

# India: one commercial connected nation

*When the Indian government took the decision to make digital services available to all citizens, it set about improving online infrastructure and increasing internet connectivity. How has digitally empowering the country affected businesses and, in particular, how should corporate treasurers respond?*

India is one of the fastest growing economies in the world, but this phenomenon is not just limited to its GDP figures; it includes the expansion of the overall 'operating system' of the country – the infrastructure that keeps it going – covering just about every sector. One of the key elements of this expansion stems from the concerted effort by the government of India to introduce a country-wide programme of digital connectivity.

When it launched its 'Digital India' campaign on July 1st 2015, The Ministry of Electronics & Information Technology Government of India outlined an extraordinary programme that would ensure all government services would be made available to all citizens electronically.

It covers three key areas: digital infrastructure, services, and empowerment of citizens, especially the unbanked. There is still a way to go on this ambitious journey, with some infrastructure projects having to start with the introduction of dependable electricity in some rural areas.

The government has introduced a number of new measures, including:

- The MGov portal which is a platform to share the inputs and ideas on matters of policy and governance.
- A mass roll-out of e-education, e-health and e-shopping projects.
- The Digital Locker, offering citizens 1GB of free mobile-accessed cloud space to securely store official documents issued by a number of agencies.
- The Jan Dahn scheme of bank account opening has reached over 369 million extra people, the focus on providing accounts on every unbanked adult, with the banks stepping up to provide these basic accounts.

With already high mobile usage and the rise of the smartphone, plus the expansion, through infrastructure development, of internet accessibility, banking the many has laid a solid platform for the uptake of digital services. This has in turn set the tone for a commercial digital revolution to which businesses must respond.

## Connecting

Alongside some of the cheapest mobile data anywhere – the sheer size of market making India very attractive to some of the world's major telco players. Driven by rural internet growth and usage, interst use in India recently exceeded half a billion people for the first time. Internet use in India is expected to reach 627 million by the end of this year. This represents almost half of India's total population.

The speed of progress can be better seen in this table:

| Internet users in 2015 | Internet users in 2018 | Internet users by end of 2019 |
|---|---|---|
| 260 million | 566 million | 627 million |
| | 140% jump on 2015 | 10% jump on 2018 |

"The internet requirement is directly connected with the digitisation of services," states Praveen Juyal, Treasury Manager, Amway India Enterprises, a business created to give Indian entrepreneurs the chance to own and operate their own business.

Of course, the more digital services are promoted and adopted, the more internet usage there is. "It's a win-win situation for both the companies providing digital services and the companies providing internet access," he believes.

Yet at the same time, we need to understand that digitisation is not an electric switch that government can flick on at any time. To meet the original briefing, there is a pressing need to keep building and sustaining appropriate infrastructure as well.

On August 15th 2019, (India's Independence Day), Prime Minister Modi announced that the government will invest INR100 Lakh Crore (around USD$1.5trn) over the next five years in infrastructure. This investment will be in building roads, railways, airports, ports, hospitals and educational institutions.

Although expressions of concern about the realism of this proposal have been aired (not least from Arvind Subramanian, former Chief Economic Adviser to the government of India) the intention sits well within the scope of Digital India. The last five years have seen massive spending on roads, railways, water, irrigation and urban infrastructure. Connectivity, both physical and digital, has a multiplier effect on the economy.

## Successes to date

So, is it working? "I believe India is running at a good pace in terms of accepting digital technology," comments Juyal. Some examples of Digital India highlights for him include are as follows:

**Aadhaar**, one of the pillars of 'Digital India'. Every resident of the country is provided with a unique identity or Aadhaar number. It represents the largest biometrics-based identification system in the world, and is seen as a strategic policy tool for social and financial inclusion. It involves public sector delivery reforms, managing of fiscal budgets, increasing convenience and promoting what the government calls "hassle-free people-centric governance".

Even given the numbers expected to use it (India has a population of 1.3 billion), Aadhar has been made sufficiently robust to eliminate duplicate or fake identities. The ministry responsible for Digital India says that it could now be deployed as a base or primary identifier solution, facilitating the roll-out of several government-sponsored welfare schemes, "thereby promoting transparency and good governance".

**Bharat Broadband Network Limited (BBNL).** Devised with the National Payments Corporation of India (NPCI), BBNL aims to connect hundreds of thousands of 'Panchayats' under the scheme. 'Panchayat' is a term used in India for the village council that has been acknowledged by the community as its governing body. Connection to BBNL should ensure better connectivity between local institutions, offices, schools and other government institutions.

One Indian state is using this technology to record the attendance of students and teachers at schools in rural areas, through an app. When a teacher arrives at and leaves the school, they are required to take a 'selfie' with their students and upload it to the school administration's site. "It is a clear move towards the roll-out and acceptance of digitisation," says Juyal.

**Unified Payments Interface (UPI)** is an instant real-time payment system developed by NPCI that allows for multiple bank accounts of participating banks to merge into a single mobile application. It effectively offers users end-to-end fund routing.

## Buy-in

It's apparent that demonetisation in India in November 2016, when Modi announced that the high denominations of INR500 and INR1,000 would become invalid overnight, has played a major role in driving acceptance of its process amongst citizens. According to Marsh research, it led to the rapid adoption of e-wallets, and credit and debit cards as a means of payment. Such digital payments have, in a large way, replaced cash transactions – at least in urban areas.

But India's investment in digitisation is having a major positive impact on business that is driving uptake too. At a practical level, the government has already digitised the sharing of cross-border documentation between trade counterparties and customs offices through the Fourth Industrial Revolution project, an online import/export portal that goes some way to easing the previously paper-heavy processes underpinning any trade involving foreign exchange.

At a high level, eCommerce has become India's fastest growing channel for commercial transactions. The Indian e-commerce market is expected to grow to US$200bn by 2026 (from US$48.5bn in 2018). By 2023, 28% of sales of durables in India will be through online modes, says a survey of over 6,800 shoppers by Boston Consulting Group in collaboration with Google India. Electronics is currently the biggest online retail sales category with a share of 48%, followed closely by apparel at 29%.

"If there are more online sales, companies will invest less in their physical shops. All that's needed is a tie-up with an e-commerce company, and a warehouse from where you can deliver the products to customers," notes Juyal.

To increase the participation of foreign players in the e-commerce field, the Indian government raised the limit of foreign direct investment (FDI) in the e-commerce marketplace model for up to 100%, at least for B2B models. In the B2C arena, the FDI norms will be subject to riders, such as when a manufacturer is selling country-made goods through online format.

This level of support for e-commerce has made it easier for major foreign brands to reach Indian customers and has seen it emerge as one of the fastest-growing trade channels available for the cross-border trade of goods and services. This is feeding a growing appetite for international brands amongst the swelling ranks of digitally connected aspirational Indian shoppers, a phenomenon also seen amongst China's burgeoning middle class.

## e-government in action

A key initial focus of Digital India has been the optimisation of the country's administrative processes. The government has established an urban renewal scheme called 'Smart Cities', the aim of which is to develop at least 100 cities across the country, making them "citizen-friendly and sustainable". Part of the programme will move Smart Cities towards a cashless economy where the delivery of electronic services to citizens can be faster and at a lower cost to the providing municipal corporation.

One beneficiary has been Nashik Municipal Corporation (NMC), the governing body of the city of Nashik in the state of Maharashtra. By leveraging the UPI mechanism and the Smart City Payment solution, Nashik Municipal Corporation enables residents to make a variety of seamless 'municipal' payments.

Prashant Magar, Head of Department at NMC, told Treasury Today Asia that the digitisation of payments for government service delivery mitigates common issues such as cash payments, lengthy queues at municipal offices, and the need for multiple ID cards. It also goes some way towards the digitisation of payments for, and documentation of, a host of Nashik's services such as property tax, water tax, and birth and death certificate issuance. NMC was a Highly Commended Winner in the Adam Smith Awards Asia Best Card Solution category in 2018.

An app is also being offered to retailers in the form of a 'soft' POS. Registered merchants can now accept cashless payments from citizens via the UPI or NPCI's BharatQR, a mobile payment app using Visa and Mastercard networks and QR codes deployed at merchant locations in order to pay utility bills.

## Most noticeable changes

- To make this a successful launch, the government has disbursed rewards worth around US$23.8m to one million customers for embracing digital payments.
- Cash-on-Delivery quickly changed into Card-on-Delivery. Cash transactions resulted in high administration costs for e-commerce companies which reduced their margins; digital payment solutions are evolving fast to address this.
- According to the Reserve Bank of India (RBI), the country's Central Bank, in June 2018 Indians had 944 million debit cards that could be used for online payment.
- E-commerce companies report that 61% of customers use debit cards for payment. This clearly reflects that people are getting comfortable with using debit cards for activities other than withdrawals at ATMs.
- Mobile e-commerce (m-commerce) is growing rapidly as a secure supplement to the e-commerce industry. Industry leaders believe that m-commerce could contribute up to 70% of their total revenues.

**Source: export.gov*

For Juyal, this all adds up to a change of significant importance. "I believe digitisation is today the hottest topic in India. Everyone – companies, government departments, and individuals – is ready to deep dive into the world of digital life. Companies understand digitisation is the next step to success."

## Commercial success

Of course, individual success stories abound and Juyal obliges with a tale of digital achievement at Amway India. Having opted for digital solutions in its payment collections method, cash is now only 2% of its total business: it was around 70% just ten years ago. "It was a huge challenge for us to manage cash because it comes with other inherent risks," he says of the decision to digitise.

Managing physical cash has a cost attached. It requires safes in which to put the cash, it needs banking arrangements so that the cash is picked up every day, and insurance is essential to safeguard that cash. "The whole process has a huge cash outflow," says Juyal.

In response, Amway introduced a number of digital models to collect payments. "By shifting towards digital modes, we have saved cost and time," explains Juyal. "At the same time our customers are having the enriched experience of not carrying cash."

## Treasury role

Today, treasury is no longer just playing a supporting role, Juyal believes. It is now more to the fore. "Treasury can bring changes by implementing new technology, innovations and new ideas which results in savings for management," he says.

With the RBI introducing new technologies which are capable of changing the payment structure in India, it will also change treasury. By the end of 2019, the 24/7 payment cycle will be functional, says Juyal.

"Amway uses RBI's National Electronic Funds Transfer (NEFT) and RTGS payment cycles today for making payments, but these cycles only work during the daytime," he reports. "When the 24/7 payment cycle comes, there will be no time between payment processing and payment settlement for treasuries – and funds can arrive anytime. Managing working capital will not be easy as it is today."

With increasing numbers of fintechs emerging in the light of Digital India, treasurers need to make sure that they are changing their systems in line with the needs of customers. The pace of change in India is "intense", with development "almost on a daily basis", notes Shankar Subramaniam, Head of India Global Transaction Services, Bank of America. "As banks, we have had to invest substantially in technology to keep pace with government plans."

The Fourth Industrial Revolution trade documentation project, for example, demands upstream capabilities from banks to enable corporate clients to access the data. But corporates too need to ensure their own back office systems and processes are capable of accepting that data. It is, observes Subramaniam, a dynamic environment "in which that capability is still growing across corporates".

For a small manufacturer supplying to a large corporate, "it can be challenging," he says. It's why he feels that part of the role of the banks is to help clients "get up and running, digitally". But with beneficial solutions such as supply chain finance trickling down from the large corporate buyers to their SME supplier community, he believes there is sufficient motivation to digitise at almost every level.

Indeed, with the government having launched the Trade Receivables Discounting System (TReDS) initiative, the micro, small and medium enterprises (MSME) community now has a bank-agnostic platform enabling the flow of cheaper finance based on financier bids for early settlement of uploaded invoices. "It ensures the supplier gets the best price possible," explains Subramaniam, noting that RBI is encouraging banks and large corporates "to become more active on TReDS".

## Keeping up

Depending on the type of customer base, treasury must keep in tune with developments. Treasurers need to ensure customers have access to as many options to make payments as possible. UPI, for example, is now being considered for transfer of invoices as part of the payment message; if it comes online then treasury needs to know.

The core systems are up and running, but even here rapid progress demands that treasurers keep tabs on how Digital India is impacting their business and how best they can respond, says Subramaniam.

"To a certain extent banks are able to support that exploration, but it is incumbent on all treasurers to stay on top of the available offerings," he notes. "There is a lot that can be gained from Digital India but there is still a lot of work involved in getting to the point where all corporates will feel the benefit." Of course, nobody said it was going to be easy, but then Digital India really is connecting a nation.

# Working capital – treasury leading the charge?

*As corporate treasury continues to operate in a world of concerted change, never have working capital and funding efficiency been more important. From the ongoing trade tensions and shifts in established trading blocks to digital disruption and the ever-evolving tax landscape – driving an efficient balance sheet through effective working capital is key.*

Sophie Yang
Regional Treasurer Asia Pacific
Henkel

Anahita Shah
Senior Advisor, Treasury Advisory Group – APAC
Treasury & Trade Solutions
citi

Citi has analysed public financial data from over 250 corporates with its key client base in APAC (ex-Japan), representing a cumulative turnover of almost US$3.4trn between 2013 and 2018. The study revealed a growth in the overall net working capital during this period, with deterioration in the weighted average cash conversion cycle (CCC) which went from 53.1 days to 55.8 days.

This is partly attributable to a consistent deterioration in days sales outstanding (DSO) which grew from 56.3 days to 65 days over the same period, as against days payables outstanding (DPO) which improved from 51 days to 61.8 days.

As part of Citi's analysis, the CCC drivers were also evaluated by industry sector for a subset of its global key corporate client base. The wide variations in CCC drivers of corporates from within each industry sector underscored the scope for tighter management of working capital, with a view to improve free cash flows and optimise the use of enterprise capital to fund business growth and/or transformation. For some corporates, it is treasury that is at the forefront in leading the charge on working capital efficiency.

To take an example, Henkel, a global leader in Adhesive Technologies, and holding leading positions in many markets and categories of its Laundry & Home Care and Beauty Care businesses around the world, has a strategic focus on sustainable and profitable growth in 2020 and beyond. The company has a strong emphasis on efficient balance sheet management, with a view to maximise free cash flows to fund growth. The pursuit of this strategy has necessitated greater working capital discipline, with Henkel's treasury team closely monitoring Net Working Capital[1] and other working capital metrics, whilst actively working on initiatives to help release trapped cash in the cash conversion cycle.

Whilst Henkel's treasury team is engaged on working capital to support business growth priorities, it also needs to monitor the ongoing geopolitical uncertainties on account of global trade tensions, as these have the potential to impact cash flows and working capital requirements.

As it seeks to further sharpen working capital funding decisions, one of the central challenges confronting Henkel's treasury team is the accuracy of cash flow forecasts. The principal source of the cash forecasting conundrum is accounts receivables, owing to the lack of predictability around customer payment behaviour.

Considering treasury's efforts to improve the DPO, expanding Henkel's existing supplier finance programmes by on-boarding more suppliers is one of the key focuses of the purchasing team. Furthermore, whereas the goal is to drive efficiencies on DSO, established modes of payment can present a significant challenge to treasury. For instance, the usage of bank acceptance drafts (BAD) in China, or paper cheques in countries like Thailand and Singapore, lengthen the time taken to convert receivables to cash.

To address these challenges, Henkel's treasury team works in close collaboration with its business teams and with its banking partner. Monthly 'supplier finance days' are organised within China, bringing together the purchasing team, suppliers and the bank. These provide a platform to acquaint suppliers with the associated financing programmes and address any concerns. Treasury is also working with its banking partners to collate data towards identifying opportunities to extend supplier financing to additional markets within Asia and expand the scope of these programmes to cover cross-border suppliers.

In parallel, Henkel's treasury is also focused on opportunities to digitise collections with a view to accelerate DSO, and has initiated a pilot that uses QR codes for instant collections in Singapore to replace paper cheque collections from a select group of customers. The pilot in Singapore is a first step towards replicating similar efforts across Asia. In its effort to streamline the use of BADs in China, treasury has published a policy specifying the eligible draft collections and regulating the end-to-end process.

Focused working capital initiatives have contributed to marked improvements in Henkel's Net Working Capital ratio. Moreover, the automation of cash application and collections reconciliation processes, through the adoption of QR code-based instant collections, is expected to result in operational efficiency gains and an enhanced customer experience.

Henkel's example highlights the strategic importance of treasury's role in working capital management. It demonstrates that where treasury is fully aligned with business teams (in particular procurement and sales), it will be much more effective in supporting and influencing decisions with positive implications on working capital. At Henkel, working capital metrics are embedded into the goals of the relevant business stakeholders, driving alignment and focus across the organisation. In this age of digital transformation, another significant takeaway is the partnership approach adopted by treasury in working with banks, to drive working capital improvement through data analytics and advisory.

[1] *Net Working Capital = Accounts Receivable + Inventory – Accounts Payable.*

# Interesting times: the treasurer’s perspective on interest rates

*It’s been well over a decade since the global financial crisis of 2008, and the global trend of low interest rates looks set to continue into the year ahead. What do treasurers need to know about interest rates going forward, and how can they weather the current stagnant environment?*

The job of any central bank is to alter its money supply to try and manage the economy and control inflation through its base interest rate. When monetary policymakers decide to change interest rates, demand in the economy is affected via multiple channels.

In a nutshell, whenever interest rates rise, consumers with debts pay more in interest to lenders. This has a negative effect on consumer spending habits because if consumers have more money to pay to keep their loans current, the less disposable income they will have to spend on products and services. More are also inclined to save not spend.

On the other hand, when interest rates are cut, the cost of borrowing decreases for both businesses and consumers. This can help spur spending on capital goods – which not only helps an economy’s long-term performance, but can also help spur household expenditures on homes or durables like cars and white goods.

## Tumultuous times

At present, the global economy is operating below potential and inflation pressures remain muted. Interest rates in many developed markets are still close to, if not at, emergency levels. This gives limited room for central banks to reduce rates further to stimulate growth.

The key major central bank that does have room to cut rates is the US Federal Reserve. Although the US economy remains relatively robust, its cycle is mature. It has had no negative quarter for more than ten years and inflation is below the Fed’s target level.

In late July, the Fed moved to an easing bias, cutting rates by 0.25% for the first time in over a decade. However, this was driven less by domestic growth concerns and more by global trade tensions.

In the UK, the Bank of England (BoE) has signalled many times to the market that it would like to gradually increase rates over the next two to three years and distance itself from the present emergency levels. Yet despite a strong labour market, the BoE has also been thwarted by Brexit uncertainty. This has led to falling business confidence and investment, with official figures showing that GDP contracted by 0.2% in the second quarter of 2019.

Taking all of these factors into account, how do central bank policymakers decide when to alter interest rates, and if so, by how much?

## The Taylor Rule

The most famous guide for policymakers is the ‘Taylor Rule’ and is used to provide a reasonable explanation for why policy took the path that it did. At the core of the Taylor Rule is that inflation-targeting central banks have a trade-off between inflation and output. Above-target inflation puts upward pressure on the appropriate interest rate while a shortfall of demand relative to potential provides downward pressure.

In the original 1993 version of the Taylor Rule, equal weight was given to inflation and output shocks, but this itself depends on the reaction of the policymakers, and need not be constant through time.

A common mistake is to say that inflation or gross domestic product (GDP) growth is high and that the policy rate is therefore too low, but this is only true in a relative sense. An increase in GDP growth or inflation implies that the interest rate might need to be a bit higher than it otherwise would have been, but that is not the same as saying a change is needed.

According to Philip Rush, Founder and Chief Economist at Heteronomics, interest rate levels should always focus on gaps and levels, not the dynamic pace of the economy. “If the potential growth rate is also robust then demand may not be excessively stimulated,” he says. “Even with weak potential growth, if the level of output is a long way below potential, interest rates should be at low levels to stimulate demand back to its potential.”

Rush believes that failure to do this would leave disinflationary spare capacity that could cause a miss of the inflation target: “The value of the dynamic data here is their indications of the gaps and levels that matter, and they do so in a directly observable and less uncertain way than the various bits on the supply side of the Taylor Rule".

## Down to business

Interest rate risk can never be eliminated, and for many businesses, it is very much a centralised risk and must be managed. This can be done with accurate cash flow forecasts (see box), and by reviewing past trends for interest rates over both short and medium terms. It is essential that the risk profile of the company is adhered to, and that other legal requirements and documentation is in place so the proposed strategy can be executed.

Whatever the appetite for risk in any organisation, there are real opportunities for treasurers to earn improved returns on idle or investment cash balances. The ability to understand how any cash investment could be affected by a rising or falling interest rate allows treasurers to take immediate action. This will impact the current and future values of existing cash holdings, as well as influencing the relative attractiveness of different investment proposals.

As referenced in the Treasury Today's September/October 'Question Answered', there are many different cash investment options available to treasurers, and each one varies significantly in its relationship to interest, and thus its capacity to mitigate risk. Of principal interest to treasurers are:

> "Any rate cut or hike of 0.25 basis points should not make much of an impact on an organisation's bottom line; unless of course it is operating right at the edge of its resources.
>
> Sarah Boyce, Associate Director, Policy and Technical, Association of Corporate Treasurers

- **Overnight bank deposits**
  Rates offered on overnight bank deposits tend to track interest rates fairly closely. However, given the lessons learnt from the 2007/8 financial crisis, treasurers should always review counterparty credit risk associated with the depositary bank. With some overnight bank deposits,

## Cash flow forecasting

Cash flow forecasting is the lifeblood for any treasury department, which is why teams cannot afford to get it wrong. Being able to forecast cash flows enables organisations to manage outstanding debts, invest wisely and better understand their overall capabilities.

With interest rates at record lows, for corporate treasurers with good access to credit and capital markets, the cost/benefit of proper cash flow forecasting may not seem justifiable. However, in today's uncertain times, treasurers can no longer ignore liquidity risk.

But in today's marketplace, there is a wide variety of cash flow forecasting software and management tools available to help. These give treasurers the ability to collect and consolidate data, as well being able to interact with different systems and perform simple 'what-if' scenarios – and this is the key.

Our world is volatile; major economic and political surprises such as Brexit, worsening relations between the US and China and the unpredictable world economy in general, are events today's treasurer has to deal with on an almost day-to-day basis. These factors can put stress upon any corporate's cash flow without warning.

However, corporates that are able to think in cash flows will indeed be in a much better position to survive than others. As the saying goes: "forewarned is forearmed", so regardless of whether interest rates rise or fall, accurate cash flow forecasting is not just important, it's essential.

The key is understanding every department's plans. To take some examples, treasurers should make an effort to understand what the mergers and acquisitions team is thinking, or if more factories need to be built, for example. A good understanding of the longer-term cash flow allows for careful planning.

"It's all about being prepared and understanding what the organisation is doing so that you can actually be prepared and be slightly ahead of the game," says Sarah Boyce, Associate Director, Policy and Technical at the Association of Corporate Treasurers (ACT). "Should the finance team say it wants to borrow money, or wants to sell an asset, treasurers will be one step ahead. Armed with accurate data, they will have plenty of ideas of how to raise the cash, or what might be done with it."

Even though rates are low, they do still offer an opportunity for those organisations with the right tools and strategies in place to capitalise upon these trends. But fail to adequately prepare for an increase or further cuts and teams could end up destroying value in their organisations pretty quickly.

> Unless there is a decent pick up in global growth and inflation, or easing of trade tensions and politics, cuts look more likely than increases.
>
> Paul Mueller, Senior Portfolio Manager, Invesco

there is also the option of earning credits to offset fees, interest or both.

- **Time deposits**
  These can offer higher yields but tend to catch any rate increase with a lag, as they need to wait out the term of the deposit before being reset to a higher rate. Time deposits carry the same counterparty risk as overnight deposits but there is an increased liquidity risk. However, some minimum maturity time deposits can offer attractive yields and increased liquidity, versus longer-term-time deposits.
- **Money market funds (MMFs)**
  Compared to overnight bank deposits and time deposits, money market funds (MMFs) have a significantly more diversified counterparty credit risk and yields are in line with market rates.

So, in order to better navigate the current interest rate environment, it's critical for treasurers to design and deploy a robust investment strategy that recognises trade-offs in yield, safety and liquidity.

## An appetite for risk?

These investment options represent some of the most important ways changing interest rates influence demand. Having a solid understanding as to how, why and when they change, allows treasurers to take action to mitigate the impact of any changing interest rate cycle.

In effect, any change to interest rates leads to demand being pulled forward or pushed back, relative to when it might otherwise have occurred. Inflation expectations are also important. If expectations are high, interest rates will also need to be relatively elevated to allow real purchasing power to rise by an attractive amount through deferred consumption.

What today's treasurer should be more focused on is the risk appetite of the organisation, and just how exposed it should be to any movement in interest rates. This is always a decision made by the board. Working closely with the board, treasurers should come up with an interest rate policy which broadly sets out the balance between fixed and floating interest rates that the business should have at any one time.

## To fix or not to fix?

At present, and because interest rates are so low, there is a tendency for treasurers to be more floating than fixed. However, this will all depend on the nature of the organisation, depending on the type of the business and just how long it is holding that debt for. If a treasurer is focused on making sure the organisation is compliant with the board's risk appetite, then it ultimately shouldn't matter where interest rates are. However, rates should be consistently monitored to see if the risk profile of the company needs changing.

"Any rate cut or hike of 0.25 basis points should not make much of an impact on an organisation's bottom line; unless of course it is operating right at the edge of its resources," says Sarah Boyce, Associate Director, Policy and Technical at the Association of Corporate Treasurers (ACT). "Organisations operating in the housebuilding, project finance or aerospace industries typically borrow for the long term. As a result, a view may be taken that fixing at a low interest rate for 30 years is so much more attractive than a long-term average of 5-7%."

Equally, Boyce believes that an organisation which borrows on a short-term basis will typically take the view to keep floating because there is a possibility interest rates could fall further. "Should there be any increase in rates the impact won't be as painful, so it is a much more nuanced question," she adds.

Jonathan Pryor, Head of FX Sales at Investec agrees. "Short-term movements in interest rates are likely to prompt questions around surplus cash deployment," he says. "In falling yield markets, treasurers may be considering options around either fixed-term or notice deposits which provide banks with favourable liquidity and therefore attract a higher yield than short-term funds".

As markets begin to price in expectations of future rate movements into the yield curve, more strategic decisions will be made. Both the UK and US interest rate markets have expectations of cuts in the price of money already priced in, and this presents opportunities.

## The future

The world is ever-changing, and with so much on the geopolitical and economic agenda, it's very difficult to gain a clear perspective and accurate forecast on when rates may rise. The likelihood of rates rising in 2020 looks limited. The US economic expansion is mature, Eurozone growth is fragile, and inflation is a long way below its desired target.

"There may be idiosyncratic moves in some smaller economies but overall, unless there is a decent pick up in global growth and inflation, or easing of trade tensions and politics, cuts look more likely than increases," says Paul Mueller, Senior Portfolio Manager at Invesco.

It seems that until inflation picks up, it's likely that central banks will remain comfortable with current levels, and there could be the implementation of differing forms of quantitative easing such as the ECB's Targeted Longer-Term Refinancing (TLTRO) operations. To date, banks are currently paying around €7bn per year to the ECB on cash parked there which exceeds mandatory reserves.

Regardless of what happens to interest rates in the coming months, the key question that today's treasurer needs to ask is: "What will my business look like if interest rates are X%?". Those businesses with an appropriate interest rate strategy in place will be best placed to respond. ■

# What does your IT department need to know about treasury?

*How can a corporate's treasury and IT teams work together to ensure the smooth running of treasury operations?*

Anita Bubna

Senior Director, Treasury
Flex

Large organisations often have specialised functions. To give an example, a financial planning and analysis (FP&A) team may not know that the accounting and treasury team are all looking to analyse and measure similar data. As a result, each team may launch a separate project to get a nuanced view of the same data, all with similar objectives. This leads to a competition for the same scarce resources, as they both try to prove that their project is far more important than that of the other.

But the IT team is in a unique place to bring all the teams together and facilitate conversations, such as coming up with a digital/analytics strategy for finance as a whole. Why is this?

Well, the IT team can be a neutral party in all the discussions. Some companies are able to form a centre of excellence reporting to the chief financial officer (CFO) for the same purpose. Unfortunately, in the absence of an owner for any end-to-end processes, inefficiencies will continue to go unnoticed.

As such, treasury needs certain metrics to understand and compare past performance with current and future behaviour. After all, every business spends a lot of time and resources in the hope that it will yield business insights that will drive efficiencies. However, if the data quality is not reliable, all the data stored will not be of much use – especially master data.

But here lies the main question: who owns data governance? The business team? The IT team? Or should it be a centralised or decentralised process?

Because the IT team is naturally connected to several different functions in finance, it can play a crucial role in bringing the relevant stakeholders to the table to help define the data governance framework.

As treasurers, we understand that IT often struggles when it comes to prioritising resources, as their main goal is to optimise existing systems for the organisation as a whole. We understand that balancing the short-term and long-term view is a hard task, but it is ultimately critical. In today's economic climate, unfortunately the pressures on IT are only going to increase.

For most treasurers, we intuitively know where the inefficiencies lie and we are just as motivated as the IT team to find a solution. But sometimes IT does not have access to all the data needed to make a business case or determine return on investment (ROI). Gathering up this data can indeed be quite a time-consuming task.

The solution is to have someone in the organisation who has access to cross-functional team data and can develop a business case using a standard methodology that will make it easy for IT to come up with an objective way to prioritise projects.

When all is said and done you can't build a house without a plan. Foundations must be laid and such a large project must be broken up into smaller ones that can be tackled in the right and logical order. But when treasury and IT work together as one, anything is possible.

Sean Privilege

Partner & Senior Manager,
Treasury & Corporate Finance
John Lewis

Treasury is a business-critical function that, at its core, manages a company's liquidity and financial risks. Requests for IT support must therefore be prioritised and resolved as quickly as possible to avoid the negative consequences that may arise from a system disruption, such as a failure to effectively fund business operations.

The IT support required to ensure the smooth running of treasury operations can be categorised as follows:

- **Operational support.** The treasury management system (TMS) generates cash forecasts, records and matches market trades, releases high value payments and could easily be described as the beating heart of any treasury – the health of this system is therefore critical. To effectively maintain this system it's necessary to have competent staff that can provide effective support in line with mutually agreed service terms.

  A number of ancillary systems are often required to both feed and receive data via the TMS so it is important that IT understands how our systems interact and the significance that any service disruption might have on the function.

- **Change programmes.** The objective of most treasuries is to achieve straight through processing (STP) such as reducing manual interventions so data and transactions can flow unencumbered through the workstream. Few teams begin with a perfect solution, so achieving a high level of process automation is usually an iterative process that evolves through continuous improvements made over a number of years.

Automating the flow of data, such as bank statements, financial market information and trades, are fundamental objectives when seeking to achieve STP. Support from IT is therefore essential to establish, and occasionally maintain, the multitude of interfaces that facilitate the flow of information between the business and various external stakeholders.

If a business makes the brave choice to implement a new TMS, it is important that IT is involved at inception to ensure that any solution can be properly supported by existing architecture and that in-house support teams can provide first line support should issues arise both during and post implementation.

If IT stakeholders understand the system well enough to develop reports and make simple configuration changes, then the requirement, and cost, associated with ongoing vendor support can be reduced.

- **Business continuity.** It is critically important that treasury has a robust, and frequently tested, continuity plan to ensure that any disruption associated with an unexpected location or system outage can be mitigated. To effectively manage daily operations, treasury requires hardware that facilitates agile working and fast and efficient support should any system accessibility issues arise.

  In the past, the provision of a work area recovery facility (WARF) was advisable to ensure that business critical functions, such as treasury, could be maintained during major disruption events. However, with the proliferation of cloud-based SaaS solutions and the welcome drift toward flexible working arrangements, the need for maintaining off-site contingency space has diminished.

Overall, it is important for a treasury team to spend time with its IT partners to ensure that there is a clear understanding between the teams of support requirements and why it is so crucially important that the maintenance of treasury infrastructure is prioritised.

Christiane Candeloro

Assistant Treasurer, Operations
AstraZeneca

Over the past few years, one of the common themes we have experienced in the execution of our strategy across treasury, is that we can often spend significant time and effort trying to bridge the gap between our requirements and knowledge, and that of our IT functions.

Part of the problem is that the products we use in treasury are naturally very specific to our own needs, such as the TMS, dealing portals and rate feeds. As such, these are not widely known about, or indeed even understood outside a very small circle of experts. If your IT department looks to manage and support an application like a TMS in the same generic way that might work for a globally-deployed application, you will naturally run into difficulties.

Over the years, here at AstraZeneca we have worked hard alongside our long-term external technology partner, Covarius, to ensure that our IT teams fully understand what it is that treasury actually does. We wanted to make it 100% clear that our small treasury team has a responsibility to manage all of AstraZeneca's financial assets – many of which are highly liquid – on a real-time basis.

We were very keen to stress that any system issues or outages would potentially incur significant financial or reputational risk very quickly. After all, nothing focusses the mind of your IT department more than these two risks, so we were adamant that our treasury applications were included in the small suite of applications that are deemed to be 'Board Level Critical'.

But here at AstraZeneca, our treasury operations continue to invest in our internal relationships, and our proactive approach includes treasury team members visiting our support teams and shared service centres across the globe. This ensures that the importance of treasury and our systems and applications to the financial wellbeing of the company, are clearly understood.

Above all else, communication is key; as is involving IT in the design of our constantly-evolving technology roadmap in order to get support and 'buy-in' for our requirements. However, at the same time we have to ensure that our treasury strategy is included in and aligned to the wider longer-term group IT strategies, as that will be a critical factor in the ongoing success of our use of technology.

Having focussed historically on both educating and partnering with our IT department, we now feel we are in a far better place going forwards with regards to the maintenance of our systems, and the ability to continue on our technology journey into the future.

I believe that our relationships with IT, and their understanding of our business will become even more important over the next few years as we start to see newer technologies such as artificial intelligence (AI), machine learning and blockchain coming into the mainstream. As ever, we'll be looking to the support of IT to ensure we can continue to be early adopters of these technologies as and when they become available.

Close partnership between treasury and IT is key to success.

## Next question:

"How can you interview effectively for a role in treasury?"

Please send your comments and responses to **qa@treasurytoday.com**

# Payment news from Sibos

*Sibos 2019, held in London, was the biggest ever – 13,000 attendees – and entertaining as always. Payments and cyber-security were top of mind and talk of DLT is receding in favour of solutions. And as always, surprises abound.*

## Resilience from the shark pool

Wandering around Innotribe in a quiet moment, I came across Paul de Gelder explaining how he got over losing half his limbs in a shark attack in Sydney Harbour – not only recovering and thriving but also applying his personal resilience to campaigning for planetary resilience. He definitely put into perspective the normal issues we treasurers think of when discussing overcoming challenges.

## Payments

With faster payments progressing at different speeds around the globe, payments were naturally high on the agenda. The Bank of England will be rolling out its next generation payment platform over the next few years. They have left DLT for the next upgrade cycle. Their RTGS vision includes:

- Increased resilience.
- Strengthened end-to-end security.
- Improved user functionality.
- Wider interoperability.
- Greater access.

It is interesting that two big themes surface in the Bank of England vision. First: resilience, which is clearly a prime responsibility of central banks and regulators everywhere. Second: access, which echoes the open banking being promoted across the Eurozone and elsewhere. At some level there is a tension between the two, because superficially, at least, more open systems can be more vulnerable.

This tension was a major theme at Sibos, engendering sessions on a wide array of topics, from securing APIs to new forms of biometrics, harder encryption, and training. We even had a session on secure coding for non-coders that was very enlightening.

It seems that the technology is reasonably robust and the bug bounty programmes keep the code security abreast with hacker's creativity, so the big risk is the wetware. As one panellist put it: "Every organisation has their 'Dave'" – the person who uses their birthday as a password and clicks on phishing links.

It's not just errant Luddites who pose a threat. One panellist cited statistics showing that only 3% of banks have activated multi-factor authentication. That is truly shocking, if correct.

## Cacophony of payments

Solving these issues will require plenty of experimentation. Corporates lament the complexity and diversity we already face when faster payments co-exist with legacy batch systems, not to mention wallets and various mobile solutions like Zelle (a bank created counter to Venmo in the USA). Each one of these has different APIs and file formats as well as different cut-offs (or none) and operating parameters.

For most, this diversity of payment rails represents a challenge impeding centralised straight through processing of large payable volumes. To some, diversity is a business opportunity in so far as solution providers who can mask the complexity can present valuable services. Yet others accept diversity as a reality that must be handled to ensure the widest possible access for their products and services.

One panellist opined that there will be two (cross-border) payment rails in the (unspecified) future – one for China and one for the rest of the world. But most agreed that the near-term promises much more diversity than harmonisation. Even within the relatively coherent confines of the Eurozone, it seems that every bank is creating its own API formats and processes. Meanwhile in the USA, a bank consortium called The Clearing House (THC) is slugging it out with the Fed to determine the future of faster payments; THC is already live while the Fed has deep research into market needs.

Ultimately payments need to become free as email has become, and indeed as are retail payments in many markets. An interesting anecdote from the early years of TransferWise was that the best price they could get from the GBP clearers was £1.30 per payment; they became the first clearing member of the Bank of England and dropped their cost of GBP clearing to £0.03 (three pennies) thereby enabling even cheaper customer transfers.

## Cross border payments

Ripple was back (and on stage) at Sibos – they ran their own competing event called Swell for a couple of years – indicating that SWIFT now feels sufficiently confident of GPI's robustness. One panellist described cross border payments as two domestic payments with FX in between – which is basically how Ripple treats it (although it is now trying to squeeze RPX into the middle).

There were many cross-border ACH service providers at Sibos this year – entities that put their own domestic bank accounts at the service of their customers to enable them to offer cheaper cross-border payments to their customers in turn, thereby avoiding the cost and complexity of the four corner correspondent banking model.

Cross-border ACH addresses the price issue with cross border payments – that they are too expensive. Cross-border ACH costs between zero and US$1 per payment and generally arrive same day and in many cases within minutes, depending on the local ACH used. Cross-border ACH normally uses domestic low value systems and many of these cap the value of payments, which precludes their use for high value treasury payments. Nonetheless, the technology is finding broad adoption within its niche.

SWIFT's gpi addresses several problems with cross border payments – notably speed and obfuscation – by enforcing a rule book for cross-border payments which includes:

- Fast (within 24 hours).
- Trackable (GPI tracker).
- Transparent (all fees advised upfront).
- Complete (no more data truncation).

GPI will be mandatory for all 10,000 or so SWIFT member banks in 2020, and this will certainly improve treasury operations. SWIFT intends to continue to address issues that have come from its corporate advisory group including:

- Instant international payments and 24/7.
- Pre-validation.
- Pay and trace.
- Inbound tracking.
- Request to pay.

A strength of GPI is that it builds on the existing and well-worn four corner correspondent model so that it accesses the extensive coverage of SWIFT's 10,000 or so member banks. Correspondent banking also brings weaknesses. The correspondent banking model consumes large amounts of precious bank liquidity – a common bank heuristic is that the liquidity required for cross-border payments is 60% of the daily volume. Another issue is that tightening AML and KYC enforcement has made big holes in correspondent relationships.

Ripple is more efficient from a liquidity perspective, and this benefit may well offset its relatively limited coverage compared to GPI.

## Conclusion

Payments are progressing rapidly. With diverse use cases searching for solutions and a variety of providers providing solutions, payments will become more heterogenous in the near future. The landscape may only simplify when government institutions like central banks decide that free, 'anywhere anytime' payments are a public good – after all, payments are a more obvious common good than many things governments currently provide to their citizens.

David Blair, Managing Director

Twenty-five years of management and treasury experience in global companies. David Blair has extensive experience managing global and diverse treasury teams, as well as playing a leading role in eCommerce standard development and in professional associations. He has counselled corporations and banks as well as governments. He trains treasury teams around the world and serves as a preferred tutor to the EuroFinance treasury and risk management training curriculum.

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INSIGHT & ANALYSIS

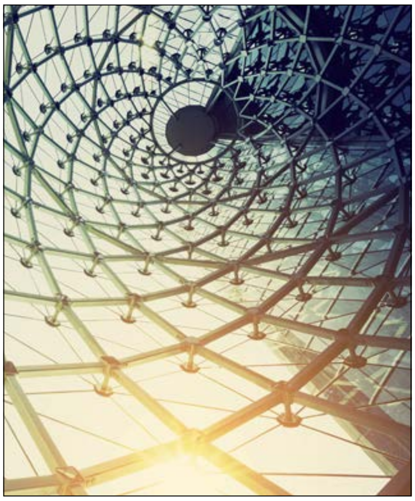
## 2020 – Year of the Rat

Next year is the Chinese Year of the Rat. According to the Chinese Zodiac, people born in this year are creative, intelligent, honest, generous and ambitious with a quick temper. This article puts the current treasury landscape under the microscope and with these traits in mind, sees what the future could hold.

FUNDING

## Green bonds – building the case for issuance

Corporate social responsibility is high on the agenda for businesses across the world. 'Being seen as being green' provides many benefits, for not only stakeholders but for customers too. Green bonds are a way of achieving the benefits of sustainability and have increased dramatically over the past few years. However, demand for such bonds far outweighs supply. Can green bonds ever fulfil their full potential?



BACK TO BASICS

## Managing commodity risk

Commodity prices can be subject to periods of extreme volatility – even more so in recent years. As a result, managing commodity risk has become an increasingly important area of responsibility for corporate treasuries across many different sectors. In the current economic climate, how can treasury implement an effective commodity risk management framework?

**We always speak to a number of industry figures for background research on our articles. Among them this issue:**

François Dominique Doll, Executive Director, Global Treasury Advisory Services, Deloitte Southeast Asia; Byron Gardiner, Executive Director of Treasury Solutions, Transaction Banking, Standard Chartered; Latifah Yusof, Group Treasurer, Astro; Anton Abraham, Head of International Advisory, Bank of America; James Carter, CFO, Alkane Resources; Wilson Koh, Group Treasurer, Grab; Anne van Riel, Head of Sustainable Finance, Americas, ING Capital; Meryam Omi, Head of Sustainability, LGIM; David Nayler, Financial Institutions Industry Practice Leader, UK & Ireland, Marsh; Peter McBurney, Head of Technology Consulting, Norton Rose Fulbright; Sally-Ann Underhill, Partner, Reed Smith; Ciaran McGowan, General Manager, we.trade; Sarah Hazzledine, Managing Director, Accenture; Richard Meade, Managing Editor, Lloyd's List; Christine McDaniel, Economist, Mercatus Centre, George Mason University; Enno-Burghard Weitzel, Head of Product Management Trade Services, Commerzbank; Marie-Charlotte Henseval, Head of KYC Compliance Services, SWIFT; John Colleemallay, Senior Director, Group Treasury and Financing, Dassault Systèmes; Praveen Juyal, Treasury Manager, Amway India Enterprises; Prashant Magar, Head of Department, NMC; Sophie Yang, Regional Treasurer, Asia Pacific; Anahita Shah, Senior Advisor, Treasury Advisory Group, PAC Treasury and Trade Solutions; Philip Rush, Founder and Chief Economist, Heteronomics; Paul Mueller, Senior Portfolio Manager, Invesco; Sarah Boyce, Associate Director, Policy and Technical, Association of Corporate Treasurers; Jonathan Pryor, Head of FX Sales, Investec; Paul Mueller, Senior Portfolio Manager, Invesco; Anita Bubna, Senior Director, Treasury, Flex; Sean Privilege, Partner and Senior Manager, Treasury and Corporate Finance, John Lewis; Christiane Candeloro, Assistant Treasurer, Operations, AstraZeneca; David Blair, Managing Director, Acarate.

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