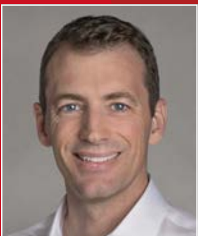
September/October 2023

treasurytoday ASIA

research | insight | analysis

India's e-Rupee digital boost

The e-Rupee is expected to be a boon to financial inclusion and builds on the digital infrastructure that is already in place.



The Corporate View

Will Thomson

Corporate Treasurer

Contact Energy

Regional Focus

Japanese companies are now shifting from 'just in time' to 'just in case' management of their supply chains.

Banking

What does the future hold?

Technology

Treasurers stake future on digital aspirations

Trade Finance

Net zero and trade flows drive change

Back to Basics

Consistency key to API evolution

treasuryinsights
research | insight | analysis

stay connected

Join your peers in receiving the latest industry intelligence direct to your inbox weekly

Subscribe now:
insights@treasurytoday.com

treasurytoday.com

treasurytoday ASIA
research | insight | analysis

treasurytoday.com
Volume 11/Issue 5
September/October 2023

Publishers
Meg Coates & Sophie Jackson

Head of Events and Projects
Sarah Arter

Senior Advisor
John Nicholas

Editorial
Sarah Rundell

Head of Production & Client Delivery
Samantha Collings

Digital Content Manager
Joanna Smith-Burchnell

Senior Designer
Vicky Scott

Project Assistants
Rebecca Chapman
Caitlin Duncan

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

memberservices@treasurytoday.com

© Treasury Today ISSN 2053-9398

Treasury Today Asia is published bi-monthly
(6 issues) by Treasury Today Limited
Courtyard Offices • Harnet Street
Sandwich • CT13 9ES • UK

The entire content of this publication is protected by copyright. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means mechanical, electronic, photocopying, recording or otherwise, without the prior written consent of the copyright holders. Every effort has been made to ensure the accuracy of the information contained in this publication, Treasury Today Limited cannot accept liability for inaccuracies that may occur. Where opinion is expressed it is that of the authors and does not necessarily coincide with the editorial views of the publisher or Treasury Today. All information in this magazine is verified to the best of the author's and the publisher's ability. However, Treasury Today does not accept responsibility for any loss arising from reliance on it. No statement is to be considered as a recommendation or solicitation to buy or sell securities or other instruments, or to provide investment, tax or legal advice. Readers should be aware that this publication is not intended to replace the need to obtain professional advice in relation to any topic discussed.

Treasury Today USPS: (USPS 023-387) is published bi-monthly by Treasury Today Limited, Courtyard Offices, Harnet Street, Sandwich, CT13 9ES, UK.

Subscription records are maintained at Treasury Today Limited, Courtyard Offices, Harnet Street, Sandwich, CT13 9ES, UK.

Asia's aspirations for treasury

This edition lands in your inbox as we pass the halfway mark judging the 2023 Adam Smith Awards Asia. Reading over 400 entries of treasury endeavour and success is a reminder of the privileged and unique window our awards offer into the issues front of mind in corporate treasury and it won't be long before we proudly reveal our winners.

Issues that have also shaped this latest edition focus on aspirations and laying out a vision for the future. Central bank digital currencies (CBDCs) are a topic that treasurers are becoming well-versed in, and in this issue, we focus on India's project – the digital rupee. While other countries have different motivations for their digital currencies, India's aspirations focus on enabling financial inclusion and using the country's existing infrastructure – in tandem with the central bank digital currency – to bring more people into the financial system so they can have access to payments, credit and other financial services, such as insurance.

Meanwhile, many treasurers across the region have their own digital aspirations for creating a truly digital treasury. As the Technology feature explains, however, a digital transformation project isn't just about the technology – it's also about the people involved and managing stakeholders. And while it is easy to have a vision for a digital future, it is easier said than done.

In having digital aspirations, it is important to understand the latest technology and tools that are available, and our Trade article focuses on the latest trends in global shipping, particularly in relation to technology.

Shipping and supply chains have suffered major disruption in recent years, and while Japan has long been a leader in high-tech industries, it has suffered with disrupted supplies. For this reason, it is now turning its attention to supply chain resilience – the topic of our Regional Focus.

Sustainability is a key theme for our Corporate View profile with Will Thomson at Contact Energy, who has been mirroring his company's drive to address environmental, social and governance (ESG) issues in his role as corporate treasurer.

We also focus on other aspirations and plans for the future by considering the future role of global transaction banks; asking what is next for APIs [application programming interfaces] and what kind of digital innovations they can enable. This also ties into the Question Answered section on the evolution of the payments ecosystem and how this is changing and responding to innovation.

IN THIS ISSUE

INSIGHT & ANALYSIS 4

e-Rupee set to boost India's inclusion

The digital rupee, India's central bank digital currency, is expected to be a boon to financial inclusion and also accelerate India's digital initiatives by building on the infrastructure that is already in place.

REGIONAL FOCUS 8

Japan averts supply disruptions

Japanese companies led the world with supply chain management and 'just in time' methods. Now, however, the country is looking afresh at supply chain resilience in the wake of natural disasters, Covid lockdowns and to become less dependent on China.

SMARTER TREASURY 13

Evolution of payments and receivables in Asia

From instant payments to QR codes and APIs, Citi's Sanjeev Jain discusses the most significant developments in Asia Pacific's payments landscape.

TRADE 14

Sailing into uncertainty

Container shipping groups like Hapag-Lloyd are still sitting on heaps of cash in the wake of the pandemic. But risks like the transition to green ships and the slowdown in growth lie ahead.

BANKING 20

Future of global transaction banking

In today's landscape, global transaction banks can't afford to stand still. From the rise of fintechs to the evolving expectations of corporate treasurers, we explore the pressures and trends shaping the future of transaction banking.

BACK TO BASICS 22

Corporates drive API innovation

The battle for treasury hearts and minds in the API space is hotting up as fintechs and banks lay out their development credentials.

TREASURY ESSENTIALS

Treasury Insights 7

Question Answered 24

10

The Corporate View

Will Thomson

Corporate Treasurer
Contact Energy

Will Thomson has built a toolkit of skills that have served him well both as an accountant and a treasurer. Here he explains why sustainable finance is a key part of his role.

TECHNOLOGY 17

Treasurers lean into their digital aspirations

Treasurers are well placed in their organisations to lead innovation and embark on digitalisation projects. While they agree on the importance of technologies like artificial intelligence and machine learning, bringing their digital vision to fruition is easier said than done.

e-Rupee set to boost India's inclusion

The digital rupee, India's central bank digital currency, is expected to be a boon to financial inclusion and also accelerate India's digital initiatives by building on the infrastructure that is already in place.

As digital currencies gain momentum around the world, India's e-Rupee pilot is set to make strides in the country because of its focus on aiding financial inclusion.

The Reserve Bank of India, the country's central bank, announced a wholesale pilot for the e-Rupee in the beginning of November 2022 and a retail pilot a month later in early December 2022. Since then, the largest banks and merchants have got involved in the trial, including Reliance Retail, the country's largest retailer. For India, these pilots – while in their early stages – hold great promise for the prospects of digital and financial inclusion because of the infrastructure that India already has in place.

Swarup Gupta, Industry Manager at Economist Intelligence, comments that the majority of the world is currently exploring central bank digital currencies (CBDCs) but each country has different motivations for doing so. These may range from having an effective method for foreign exchange transactions, or central banks wanting to claw back monetary control in the face of private enterprises offering their own digital wallets. With India, however, Gupta says the motivations are different. "The e-Rupee is primarily about financial inclusion," he tells Treasury Today Asia.

There are numerous use cases for the digital rupee. This, for example could include government disbursements that can be done quickly and effectively with digital payments, instead of distributing physical vouchers that are later reimbursed.

Joydeep Dutta Roy, Executive Director, Bank of Baroda comments that the e-Rupee, "can enhance the efficiency and transparency of government benefit disbursements. Direct Beneficiary Transfers, subsidies, and social welfare payments

can be disbursed directly to individuals' digital wallets, reducing leakages, eliminating intermediaries, and ensuring that funds reach their intended recipients," he says.

Using a CBDC for this kind of 'helicopter money' – as a form of aid during emergencies – is just one of the benefits of the e-Rupee, points out a report on the digital rupee by PwC. Other benefits also include the ability to monitor transactions, and also help with anti-money laundering and combatting the financing of terrorism.

Dutta Roy agrees there is plenty of potential for India's CBDC. "The digital rupee presents a multitude of opportunities that can reshape India's financial landscape and drive innovation across various sectors," he tells Treasury Today Asia. He continues: "In essence, the digital rupee's opportunities span across sectors, addressing pain points and providing solutions that leverage digital technology. From promoting financial inclusion to enhancing efficiency and security in transactions, the e-Rupee holds the potential to drive economic growth, innovation and empowerment across the nation."

Dutta Roy goes onto list some of the most compelling use cases, which include micropayments. "The digital nature of the e-Rupee enables seamless microtransactions and micropayments. This opens doors for new business models, such as pay-per-use services, content subscriptions and digital goods purchases, where conventional payment methods are often impractical due to transaction fees," he says.

In the retail and e-commerce sectors, the e-Rupee offers customers another secure and convenient digital payment method. However, like Gupta, Dutta Roy points out that financial inclusion is a major motivation for the RBI to introduce the digital currency. "One of the most significant opportunities lies in fostering financial inclusion. The e-Rupee can provide access to banking services for individuals who are currently excluded from traditional banking systems, especially those in remote or rural areas. This empowers them to participate in the digital economy, access credit and manage their finances more efficiently," says Dutta Roy.

Subrahmanyam Oruganti, Partner, Financial Services Risk Management, EY India notes another potential solution the digital currency can offer. He points to the challenges faced by micro, small and medium enterprises (MSMEs) in accessing credit. "MSMEs in India grapple with information opacity, lack of credit histories, collateral, high transaction costs and elevated interest rates. CBDCs, with ledger-based technology, offer a transaction history that can serve as an auditable record, supporting credit assessment. This can reduce transaction costs and interest rates, thereby fostering a more inclusive credit ecosystem for MSMEs," Subrahmanyam says.

Subrahmanyam comments that the use cases for the e-Rupee include its programmability, cross-border efficiency, offline usability, and the empowerment of micro, small and medium enterprises (MSMEs). "These will converge to reshape financial landscapes, enhance inclusion, and address multifaceted challenges across India's economy," he says.

Subrahmanyam explains that the programmability of the CBDC enables targeted uses – which can come in the form of smart contracts and token-based transactions – and for India, opens up opportunities for financial inclusion. The Indian government has been spearheading a financial inclusion programme since 2014, which is known as Pradhan Mantri Jan Dhan Yojana and aims to bring the entire population into the financial system and enable access to bank accounts and electronic payments, as well as access to products such as credit and insurance.

What is interesting about the programmable nature of the CBDC, says Subrahmanyam, is that it's possible to expand this programme and enable individuals to be onboarded without a functional bank account. This in turn will optimise the social benefits of the scheme and improve financial empowerment, he adds.

Given the geographic diversity and economic diversity in India, and the lack of infrastructure in some places, the offline functionality of the CBDC will also prove useful. "Offline functionality ensures payments can be conducted when both sender and receiver lack network connectivity. This feature proves invaluable in disaster-prone regions and remote areas with intermittent connectivity," points out Subrahmanyam.

India has already made progress in its development of digital payments and expanding its digital economy. Subrahmanyam comments that when it comes to digital payments, India is world-leading and he cites figures that estimate that two out of three transactions will be digital by 2026. One area that India has made particular progress in is with its Unified Payments Interface (UPI), its instant payments system. With UPI, Indians can pay via their mobiles – using their mobile number as a proxy for an account – and make peer to peer payments as well as pay for goods and services.

With such an advanced payments infrastructure already in place, this raises the question of the rationale for a CBDC. If India already has UPI then why does it also need a CBDC? What can a CBDC offer that UPI can't? Many people have already posed these questions, which the central bank has been keen to address.

Gupta comments that one major difference is that the central bank digital currency does not have any intermediaries. The RBI Governor Shaktikanta Das also honed in on this lack of intermediaries. "It's important to clarify this point because a lot of people are asking what is different between UPI and CBDC," he was quoted by CoinDesk as saying. Another major difference is that UPI is considered to be commercial banks' money, whereas the CBDC is the central bank's money, which makes it more akin to cash.

The lack of intermediaries with the CBDC means that costs will be lower, argues Nikhil Jain, CEO and Co-Founder of CredR – a platform for selling used bikes and scooters. "Due to the lack of middlemen and the lower expenses associated with producing and distributing real cash, digital transactions are often less expensive than traditional bank transactions. This might lower the expenses associated with carrying out financial transactions for both people and corporations," he wrote in a piece for the Economic Times.

The establishment of the central bank digital currency also builds on the existing digital infrastructure that India has put in place to boost its digital economy, and aid financial inclusion – among other goals. This includes the world-leading Aadhaar biometric identification system. This is estimated to have 1.4 billion registered users and is the largest biometric database in the world. By using people's fingerprints and retina scans as a means of identifying individuals, large segments of India's population – who may be illiterate or lack formal identity

> The e-Rupee is primarily about financial inclusion.
>
> Swarup Gupta, Industry Manager, Economist Intelligence

documents – can be included in India's digital infrastructure and have access to financial services. By being a digital system – that doesn't rely on paperwork – fraud and corruption has been reduced and more people have a more convenient way to access government services.

Such a system underpins India's efforts at driving financial inclusion as well as building a digital economy. Meanwhile, the country has also been building the India Stack, a platform of open APIs that are available to government agencies and businesses to leverage the digital infrastructure to solve some of India's most pressing problems.

Jain comments, "India Stack has the potential to transform the delivery of financial and non-financial services in India, increasing financial inclusion and improving the lives of millions of people. The platform has already been used to build a range of services, including digital wallets, e-signatures and digital locker services, and there is ongoing innovation and development in this area." He adds that the India Stack is well positioned to support the development of the digital rupee: "The infrastructure and services provided by the India Stack, such as the Aadhaar unique identity program and the UPI unified payment system, can be leveraged to support the issuance and use of a digital rupee," he writes.

With these digital services already in place, India is well-placed to build its digital future. Gupta argues that many Indians have a greater proclivity to use these digital public goods. "Because of the UPI the e-Rupee will catch on," Gupta tells Treasury Today Asia. However, at the time of writing the adoption of the e-Rupee had not been widespread. Using the e-Rupee has not been discussed widely, and this is still yet to happen, says Gupta.

In July 2023, the RBI urged the smaller banks to get involved in the digital rupee pilots, in addition to the largest banks that had already signed up. The RBI Deputy Governor T Rabi Sankar was widely quoted by media as saying the central bank was aiming for one million digital rupee transactions per day by the end of 2023. This seems a somewhat ambitious target given that at the time – in July 2023 – the number of transactions per day was estimated to be around the 5,000 to 10,000 mark. "I am targeting one million transactions because it is high enough to understand and study the pattern and not too high that it cannot be achieved," he was quoted as saying at a meeting of the Indian Banks' Association. By contrast, the UPI platform has nearly 300 million transactions per day, according to Forbes India.

One way to increase the usage of the CBDC is to make it interoperable with the existing infrastructure. One initiative has seen QR codes which are being used with UPI to be interoperable with the digital rupee. With the use of QR codes, the UPI and digital rupee can "get along with each other in peaceful coexistence," says Gupta.

For example, Canara Bank introduced a digital rupee mobile app that is interoperable with UPI. Announced in August, the bank stated that its customers would be able to pay with the digital rupee by scanning a merchant's UPI QR code. "This feature empowers the merchants to accept digital currency payments using their existing UPI QR codes in addition to the UPI based payments without the requirements of a separate onboarding process for CBDC," Canara Bank said in a statement.

Through the app, the customer can load money into their CBDC wallet, by debiting their associated account, and are also able to redeem digital rupee and credit the amount to the associated account. They can also transfer the digital rupee to anyone with a CBDC wallet. And they can pay businesses with UPI and CBDC QR based payments, and CBDC QR based payments can be used to send and receive payments.

Likewise, Axis Bank also announced in August 2023 that it had added UPI operability to its digital rupee app, the Axis Mobile Digital Rupee.

As such measures are expected to increase the usage of the e-Rupee, treasurers at companies that are affected need to start preparing for the uptake in India's digital currency. Gupta comments on the challenges that they face in doing so. One of the issues that treasurers face with the use of the digital rupee is that it is possible to use the digital currency without a bank account. "That is a problem for treasurers – that is a headache," says Gupta. "Treasurers are like goalkeepers – no one remembers how many goals they save… only if they let one go," he adds. For accepting CBDC payments, this poses a challenge in knowing who is actually making the payments and authenticating and verifying users. With this kind of change in risk management, they need access to real-time data flows to do this. Added to this are challenges with cyber security, says Gupta.

There are other issues when it comes to the handling of digital currencies, such as how they are accounted for, and how they are reported for tax purposes and so on. There are a number of questions that treasurers who are about to embark on using digital rupee should be asking themselves, says Gupta. Some of those questions on the treasurers' checklist include: Is my data private? Who has access to the data and who is the custodian of that data? Are my transactions secure? Can I trust the other party? What is the level of counterparty risk? With questions such as these, it may become clear to some corporate treasurers of the amount of preparatory work – and time taken to understand the new currency system – that will be involved.

For corporates, there are other benefits to the CBDC, such as its ability to overcome the inefficiencies in the current correspondent banking system for cross-border payments. Also, Gupta foresees a promising future for the digital currency in the use of trade, especially as the QR codes will be able to link up and be interoperable. "Before you did not know where your money was; now you do," Gupta says of digital currencies.

When asked about the timeline for the e-Rupee to go mainstream and be commonplace in India, Gupta comments that he expects to see a period of coexistence with the UPI and digital rupee, with each having different applications. He expects the two systems to coexist, and with interoperability the digital rupee will likely have more traction, he says. ■

Treasury at Singapore's Olam Group, one of the world's biggest agricultural commodity traders, is being overhauled as the company prepares two sequential IPOs in Riyadh and London. Group Treasurer Jayant Parande explains the scale and size of the transformation underway.

Preparing to IPO is a complex task for treasury. As Singapore's food and agri-business Olam Group prepares to split into two separate entities and lays the groundwork for two sequential IPOs, the treasury team have been hard at work.

The listings are the fruition of a transformational restructuring at the company. Olam Group has been adding value to the commodities it grows, originates and supplies around the world for years by manufacturing ingredients that it then sells to global food companies. Today, this arm of the business has grown large enough to stand on its own, and for the last two and half years the company has been steadily carving out two separate entities, Olam Food Ingredients (ofi) and Olam Agri, which will remain focused on growing, processing and trading commodities.

These distinct divisions are now seeking to IPO, led by Olam Agri which recently announced it is targeting a Singapore and Riyadh dual-listing in the first half of 2024. ofi, which will list in London and Singapore, will follow suit on a sequential basis based on prevailing market conditions.

"No international company has done this before," enthuses Jayant Parande, Managing Director, Global Head – Treasury & TSF (Group Treasurer) at the company where he has worked in treasury for over 25 years and was part of the team involved in Olam Group's initial IPO in Singapore in 2005. "What's different this time is the scale and size of the transformation."

Key tasks

One of the key tasks for the treasury team has involved separating out Olam Group's debt portfolio between the two new entities. "We have had to make sure the debt is domiciled in respective operating entities," he explains in an interview with Treasury Today from the company's Singapore office.

Olam Group's diverse debt portfolio rests with multiple banks; it also comprises bond issuances, sustainability-linked offerings, DFI-linked loans and trade finance facilities which had to be re-organized under ofi and Olam Agri umbrellas. The process requires consent from each lender and has also involved securing a bridge finance facility from a group of banks to cover any obligations should one of the lenders not consent to the move. "We have had to make sure the entire portfolio is where it needs to be," he explains.

As the IPO process starts to gather momentum, the treasury team's primary focus remains managing the global banking position and aligning the diverse group of lending institutions to the strategic focus of the company. Olam has a group of around 30 global banks comprising co-relationship banks alongside others who support the group across multiple touchpoints like FX, trade finance, working capital and derivatives.

Alongside the IPO, Olam Agri will demerge from Olam Group to ensure it can tap the full benefits of the valuation. Olam Group will not hold a stake in either of the future companies to ensure the maximum value from the IPOs, explains Parande. It means the treasury team has had to also work through two consent processes for approval for two demergers – both of which have been successfully completed. ■

Our weekly Treasury Insights digital newsletter examines topical events and trends affecting the world of treasury and includes our news digest with links to other treasury and finance related news. Treasury Insights offers a pertinent viewpoint on the issues that treasurers are, and should be thinking, about today. Sign up now – **subscriberservices@treasurytoday.com**

Japan renews focus on supply chains

Japanese companies led the world with their supply chain management and 'just in time' methods. Now, however, the country is looking afresh at supply chain resilience in the wake of natural disasters, Covid lockdowns and to become less dependent on China.

Potatoes are a critical ingredient for potato chips and if you're in the business of making them and you don't have potatoes, well… you have a problem. This was the situation that Calbee, a Japanese company and major Asian producer of potato chips (or crisps) experienced in 2021. The company sourced the majority of its potatoes from the northern island of Hokkaido, Japan, and when drought hit, the company faced a major potato shortage. According to CNN, it tried to source potatoes from the US, but at the time there was also shortage of shipping containers and prices had skyrocketed.

This was a reminder of the havoc that a supply disruption can cause. And it's not just a potato shortage that Japan has faced in recent years, as Nikolaus Boltze, Country Representative for Japan at German industrial and technology multinational thyssenkrupp points out. Japan has also been affected by the wider semiconductor shortage. Because of this, in October 2022 it was reported that Toyota was limiting the number of smart keys to one per new vehicle. And in another example of the impact, the train operator JR East faced a shortage of smart metro cards because of the chip shortage.

Such examples have been something of a wake-up call for Japan, which for decades has been viewed as the leader in supply chain management and lean production. The Toyota Production System, for example, gave the Japanese company a competitive edge and its 'just in time' methods were admired around the world. As Mireya Solis, Director of the Center for East Asia Policy Studies at Brookings, writes, "Japanese companies were active participants in the supply chain revolution that transformed patterns of international trade and investment and rewired economic integration in Asia." She continues: "supply chains transformed Japan as well. For starters, economic activity became more closely integrated with overseas production."

It wasn't always this way, and Japanese multinationals have gone through different phases. For many years, the entire production process was consolidated and focused in Japan, explains Shujiro Urata, Professor Emeritus, Waseda University, Tokyo. "However, in the mid-1980s when the yen appreciated sharply products made in Japan were less competitive." For that reason, companies pursued a fragmentation strategy where the production process was broken up into pieces or tasks, with the labour-intensive tasks moving to low-wage locations. "That fragmentation strategy worked very well and was the most efficient production system," Urata explains.

The days of multinationals just focusing on production efficiencies are long gone, however. Given the issues that Covid exposed, as well as other supply chain shocks such as the semiconductor shortage in recent years, multinationals are now moving from a 'just in time' system to a 'just in case' system, explains Urata. "Multinationals have to consider the risks – they cannot continue by just looking at efficiencies and the cost of doing business. Before the crisis they just focused on the cost of production; now they have to consider other risks," he says.

Urata explains that supply chain resilience came into focus after the 2011 earthquake that resulted in the nuclear accident at Fukushima's power station. "Since then policymakers, business people and researchers became very interested in the possible impacts from disruption to supply chains," he says. Also, in 2011 there were severe floods in Bangkok, Thailand, which impacted Japanese companies operating there. However, despite shortage of certain parts and components for automakers, which stopped production, the recovery from these incidents were quicker than expected.

Fast forward a decade and the disruption brought by Covid exposed weaknesses in accessing supplies, such as medical equipment. At the same time, economic security has also become an issue – especially in the context of the US-China trade war and Japan (and other countries) wanting to reduce their dependence on China, especially for critical materials.

Reducing the dependence on China is both because of China's perceived security threat and because of the concentration risk of having so many supplies being sourced from a single country. "The issue of supply chain resilience has been there for many years and has been heightened by these security-related issues," comments Urata.

Thyssenkrupp's Boltze puts this in a wider context. From a geopolitical viewpoint, Japan is an island nation that does not have any natural resources, such as raw materials or fossil fuels. Because of this, explains Boltze, "Japan is highly dependent on a 'free and open Indo-Pacific' with uninterrupted shipping routes." The Japanese government, as well as industry, are fully aware of the implications of this situation, he notes. However, "the earthquake of 2011, the recent Covid lockdowns, and the US-China trade tensions are shifting priorities even more towards the topic of resilient supply chains," comments Boltze.

The Japanese government has been improving such resilience and has introduced a number of measures. For example, Urata explains there were two specific programmes that were proposed: a subsidy for companies reshoring back to Japan, and another programme to help companies diversify away from China to ASEAN [the Association of Southeast Asian Nations]. From an economists' perspective, many researchers were not in favour of the first programme, explains Urata, because of the concentration of risk in focusing production in Japan. "We have many earthquakes," he comments.

The heightened attention to economic security has led the Japanese government to take action at the highest levels. In February 2023, for example, Reuters reported that officials from South Korea, the US and Japan held an economic security meeting to discuss supply chain resilience in the context of a more assertive China. There have also been reported concerns about the **disruption that increased cross-Strait tensions** could bring to multinationals in the region. In light of such geopolitical tensions, and a need to decrease dependence on China for supplies, especially critical materials, there has been a move towards 'friendshoring', where supplies are sourced from countries that are deemed to be political and economic allies.

In May 2022 Japan's parliament approved the Economic Security Act which supports Japanese companies that are intending to diversify their supply chains. This act covers areas such as securing the stable supply of important products; securing Japan's critical infrastructure; making its critical technologies resilient; and providing more protection for intellectual property in patent applications. A number of goods have been designated as specifically important, including semiconductors, rare earths, medical supplies, fertilisers, ship parts, liquefied natural gas, aircraft parts, cloud applications, antimicrobials, storage batteries, industrial robots and machine tools.

Japan meanwhile has been bolstering its alternatives to China. With raw minerals, for example, the government is exploring ways for the refining and smelting process to be brought to Japan, comments Urata. And with semiconductors, Boltze says, "Japan is clearly on the path to revitalising its own and independent production with a huge effort."

One way that Japanese companies can avert supply chain disruption is by sourcing from a number of different places. Yuzuka Kashiwagi, Assistant Professor, Department of Business Economics, School of Management, Tokyo University of Science comments, "There is still a lot of room to improve diversification in Japanese firms," adding that this diversification is also good for economic growth in the longer term. However, there is a reluctance by some companies to diversify their suppliers because some of their company information is confidential and they do not want to widely share their company practices.

Also, the nature of Japanese supplier relationships is typically less flexible when compared to European companies, Kashiwagi comments. In Japan, there is an emphasis on long-term relationships, and this sometimes means that efficiencies – and flexibility in stopping and starting contracts – can be sacrificed in favour of maintaining these bonds. Many of Japan's big-name brands do not produce the goods themselves, but rather operate a 'keiretsu' model that comprises a network of smaller companies, which may be exclusive suppliers, that fall under the umbrella of the large brand. These relationships are particularly sticky and long-standing, which may mean companies are reluctant to make changes in favour of diversification.

One area that could be improved, notes Kashiwagi, is the communication and information sharing within supply chains. She points to the system that Toyota Motors introduced, called RESCUE (Reinforce Supply Chain Under Emergency) which is a database of supplier information that can identify if there is a problem and update with accurate information in order to avoid supply disruption.

For non-Japanese multinationals that are seeking to diversify away from Japan, they may find they cannot find alternative countries to source certain goods. Kashiwagi comments that while non-Japanese multinationals may be able to switch suppliers easily, because they have more flexibility in their supply chains, with Japan this may not be the case because its companies offer unique products. This point is echoed in Solis' paper entitled 'The Big Squeeze: Japanese Supply Chains and Great Power Competition': "Japanese firms developed core competencies in advanced materials, high tech inputs, and sophisticated machinery, thereby becoming a technological pivot of the Asian supply chain." Although Japan may have been overtaken by South Korean and Chinese rivals in the consumer electronics market, "examples abound of the critical role that Japanese advanced inputs and machinery play in strategic supply chains in the Asia-Pacific region." With smartphones, for example, Japanese firms supplied 23% of the total value of parts for the Huawei P30, Solis writes.

Given its expertise in certain sectors, Japan is working on becoming a more attractive destination for foreign direct investment. On the question of whether Japan will be able to attract multinationals to its shores in this way, Urata comments that in recent decades the country has struggled to do this. He cites the language barrier as a major impediment to doing business in Japan. Urata comments that the ratio of inward foreign direct investment (FDI) to GDP for Japan is one of the lowest in the world, while the outward FDI/GDP ratio for Japan is one of the highest. "There has been general interest by the Japanese government to attract FDI investment with the hope that foreign capital will revitalise the economy," says Urata.

The country has been having some success in this regard, however, Boltze gives several examples of German companies that have been investing in Japan, and says that many non-Japanese multinationals are relocating their regional headquarters, sourcing departments or sales coordination units from China (including Hong Kong) to Japan. Bosch, the German engineering and technology company, invested Y39bn in a new research and development facility in Yokohama. And in another example, Evonik Industries, a German chemicals company announced in February 2023 that it has invested in fumed aluminium oxide production plant expansion for battery applications in Yokkaichi, Japan. "As the only G7 country in Asia, Japan is benefiting from its political stability and economic strength," says Boltze. Also, he notes, labour costs are reasonable, and combined with a certain degree of automation, the country is attractive as a production hub.

As Japan works on these measures to improve supply chain resilience, for both its own companies as well as foreign multinationals, it will enter a new phase where production won't be focused on efficiencies and 'just in time' production but rather a 'just in case' approach. ■

Building a treasury toolkit

Will Thomson
Corporate Treasurer
Contact Energy

Created in 1996, Contact Energy is one of New Zealand's largest listed companies with over 550,000 customers across electricity, natural gas and liquefied petroleum gas (LPG) products, supported by a team of over 1,000 employees located up and down the country, all working to help New Zealanders live more comfortably with energy. The company's focus is on delivering great value, great products and great service to customers. It currently offers electricity, natural gas and bottled LPG, generated through 11 hydro, geothermal and gas-fired power stations. The company is always looking to the future and is constantly trialling new products and service – all inspired by customer feedback.

Will Thomson has built a toolkit of skills that have served him well both as an accountant and a treasurer. Here he explains why sustainable finance is a key part of his role, and how this fits with working for a company that has environmental, social and governance (ESG) concerns at the core of its strategy.

Will Thomson, Corporate Treasurer at Contact Energy, had quite the journey to get to where he is today. After establishing his career in the UK, he relocated – for personal reasons – to New Zealand. Not one to put his feet up and kick back for a long-haul flight, Thomson went the scenic route. He cycled across Europe, flew to China, cycled along

the Tibetan Plateau and down into Laos and Thailand. From there he travelled onto New Zealand where he now lives, in Wellington. Along the way he adapted his toolkit to effectively fix punctures, change tyres and make other tweaks along the way. Similarly, throughout his professional career he has been building a toolkit of skills that serve him well, no matter the situation or extreme the conditions.

These days those skills and tools are being applied to sustainable finance and embedding ESG into the treasury at Contact Energy, a New Zealand company that is committed to decarbonisation, renewable energy and a sustainable future.

Stumbling into treasury

Like many corporate treasurers that Treasury Today Asia speaks to, Thomson did not set out on a career in treasury and stumbled onto its path by chance. He graduated from the UK's UWE Bristol (University of the West of England) with a degree in Business and Information Systems. From there he took on analyst roles in the financial services industry and then moved into telecommunications. After four years at BT Group in the UK, he wanted to move away from his sales-based role and shifted direction back towards finance, taking the opportunity to qualify as an accountant. He studied for these exams while working for Simpson Spence Young (SSY), a shipping partnership, where he completed the ACCA [Association of Chartered Certified Accountants] exams and worked as a senior accountant.

Thomson explains there was a finance partner at SSY but no treasurer because of the size of the organisation. This, however, didn't mean there weren't treasury tasks to do and these usually got distributed among the team. "I ended up doing things like FX [foreign exchange] and FX analysis around the hedging. I quickly realised that I found treasury much more interesting than traditional accounting. I also had a friend who had gone into treasury so I could see there was a clear career path," says Thomson.

This kind of lucky accident of discovering treasury is quite common among the community of treasury professionals. Commenting on the typical entry point to the corporate treasury world, Thomson comments: "No one does a degree in treasury – everyone stumbles across it!" After stumbling across it in this way, Thomson went on to pursue the Association of Corporate Treasurers (ACT) qualification, which his company supported him to do.

When asked what he has learned from this kind of career switching – between accountancy and treasury – Thomson comments, "I always tried to grasp opportunities. Although the treasurer role was still a small part of the job at SSY – there was just a small amount of cash management and FX risk and no debt capital markets – it was a great opportunity to learn the fundamentals and basics of treasury."

Now that he's doing a treasury role, does that mean he needn't have bothered with the accountancy qualification? Given how arduous and gruelling the ACCA exams are reported to be, does he regret doing them? Not at all, says Thomson. "I don't think you have to be an accountant to be in treasury – many people come from other areas like finance, banking or law – but ACCA gave me part of the understanding to do this role. Everyone will come to treasury from somewhere else; I don't regret doing the accountancy qualification because it put me on the path to treasury."

Also, having a foundation in accounting means that Thomson can communicate from a solid base with his stakeholders. "Treasury is a function that is woven into the whole company. It is a major part of finance and that means looking at the bigger picture and what the rest of the finance function are doing. It is quite valuable to have an understanding of how that works," he says.

Thomson cites a former colleague who advised him to have 'more than one string to your bow', which is something that Thomson took to heart. Nowadays he has several of them with strings of ACT qualifications to his name.

Building the toolkit

In a sense, by doing both accountancy and treasury qualifications, Thomson has been building his toolbox for the long term that will serve him well as he progresses through his career. In senior roles, it is important for leaders to have a solid understanding of the complete picture. Chief financial officers, for example, need to understand cash and liquidity management to succeed in a senior position. And vice versa: corporate treasurers in senior positions need to understand the principles of finance and how the function operates.

The lesson he has learned so far in his career, is "keep your eyes open and look for opportunities. It can be easy to be head down and focused on a set path of the role you are in. I was not looking so much for treasury, but the opportunity came along and I grasped it. I don't see that as an end to the accountancy but rather it was something I was adding to it. Wherever I have been there have always been opportunities to get involved and get responsibilities and I put my hand up," he says.

After seven years at SSY, Thomson decided to relocate to New Zealand and spent a year travelling – which included his cycling adventure – and landed in Wellington. After securing a work visa, he took on a role at Chorus, a telecommunications company, where he was the senior group accountant – a role that was mixed with both treasury and accountancy. He was itching to take on a full treasury role and used this time at Chorus to gain experience in debt capital markets. Chorus had domestic bonds, as well as bonds in Europe, and he took the opportunity to learn about instruments such as medium-term notes (MTNs). During this time, he supported the issuances of a NZ$500m retail bond and a €300m MTN.

Given that New Zealand is a relatively small market, there are not that many full corporate treasury roles. By connecting with the treasury community in New Zealand, and going to networking events, Thomson learned of where the opportunities were. He soon learned of a job opening at Contact Energy. He applied for the role of assistant treasurer, got the job, and from there he rose the ranks to become Contact's corporate treasurer.

Applying core principles

This was the first time Thomson worked in the energy sector, but he relished the challenge. When asked if a major adjustment was required because of the new industry, Thomson doesn't think so, aside from learning about the complex pricing of electricity. "One of the good things about treasury is that money is fungible – it is the same in every company. When you have skills in treasury they are transferable," he says. "Some companies might have more

> No one does a degree in treasury – everyone stumbles across it!

FX risk, for example, but generally it is the same risks you are managing, although you might manage them in a different way. There may be different demands or different ways to measure risks in a country, industry or company, but fundamentally it is not a different language. It is a refinement and flex of the core principles you've got in your toolkit and the skillset that has been built up over a career," says Thomson. "However, knowing which tools to use and how hard to tighten the screws requires a finer judgement – that can come with experience – but you're not working in a completely different language," he adds.

Thomson says he likes his current role at Contact because of the variety that it entails. "I like the analytical part of the role and the fact there is a strategic element to treasury and a need to engage with internal and external stakeholders." His current priorities include focusing on access to capital to support the company's ambitious growth strategy. "There is a nice mix of technical and personal interaction in this role. And it is challenging being in a strategic role, looking at the enablers of growth and how the risks are changing. It is dynamic, which is really interesting."

A sustainable future

Thomson also enjoys his role because of the company he is working for and being part of its decarbonisation strategy. The energy company currently has 85% renewable electricity generation and is actively pushing that figure up to 95% as it initiates decarbonisation projects that replace thermal generation with renewable energy.

In mid-August, Contact's CEO Mike Fuge commented on the company's progress in this regard: "This year we have taken key steps towards decarbonising our own portfolio and now have a clear path to achieve net zero emissions from our generation operations by 2035. We are committed to doing this in an orderly manner, ensuring security of supply and energy affordability to New Zealanders."

Sitting in corporate treasury, Thomson comments that "sustainable finance and sustainability products tie in with what our core strategy is about. It feels like I'm in the right company at the right time."

Contact has publicly committed to decarbonisation and has set out its Contact26 strategy that aims to grow demand for renewable electricity, develop new, flexible energy generation and decarbonise its portfolio. This will be done at the same time as serving its customers well and will be underpinned by the company's commitment to strong ESG practices.

ESG motivations

When asked about how ESG concerns can be integrated into the treasury, Thomson says, "The primary function of treasury is risk management – that has to be the starting point. You have to manage those core risks – they are critical to how the company performs. Then after that you can consider what is the approach with sustainable finance and what your motivation is for doing it. You have to ask yourself what your motivation for doing it is – that is a good question." He continues to explain how ESG fits with the treasury at Contact Energy. "For us it is such a natural fit with our core company strategy."

Contact was one of the first companies in New Zealand to align its bank debt to its sustainability goals and Thomson says that when they do roadshows to showcase the company's sustainability-linked lending programme, investors can see a clear link between the lending and the green projects it supports. In December 2022, Contact refreshed its sustainability-linked lending programme and announced a new NZ$850m facility.

Thomson notes that there has been a real engagement with investors for sustainable finance and there is a large appetite for such products. Thomson rang the bell at the NZ Stock Exchange in March 2023 when it celebrated the launch of its NZ$300m green bonds offer. The reception such products receive now, comments Thomson, is quite different from only a couple of years ago. Previously, investor questions would have focused on the product itself, how it is structured and so on. Now, however, Thomson has noticed a shift in focus towards ESG concerns and a deeper questioning of Contact's ESG ambitions and decarbonisation strategy. "As an energy company investors do look quite closely at ESG issues and that gives us an opportunity to be up front about what we are doing. Now it seems investors understand the green bonds well and they're asking about ESG, what our plans are regarding thermal generation and whether we're being genuine in shifting to renewable electricity," he says.

An ESG toolkit

With more investors interested in ESG and such issues being embedded into the way of doing business, does this mean that the role of the treasury will be different? Will the skillset of the future need to be different? Thomson believes there will be a broadening of the skills required to work in treasury. "Automation and artificial intelligence (AI) will come into what treasury will look like in the future and some elements of the role will become simpler, quicker or will disappear. Sustainable finance is here to stay and it is growing. You need to have fundamental treasury skills and AI and automation will give you more time to focus on the broader topics, manage stakeholders, and think about how strategy links with investment and how to deal with the reporting on that."

Thomson comments that with this broader skillset it is important to keep in mind the relationship building that will be necessary to be successful in treasury in the future. "In treasury you have to stay engaged – there are lots of touchpoints with treasury in an organisation. The danger is that you can get set in your ways and stuck on treasury island. With AI and automation you will have more time to get involved in more projects and focus on strategy, critical analysis and managing relationships," says Thomson. He adds that interpersonal skills and emotional intelligence will become highly important in the future – and will be tools that will have to be added to any treasurer's toolkit. ■

Evolution of payments and receivables in Asia

From instant payments to QR codes and APIs, the payments landscape in Asia Pacific is changing rapidly – and the role of the treasurer is evolving accordingly, says Citi's Sanjeev Jain.

Sanjeev Jain
Payments and Receivables Head for APAC
Citi

The payments landscape in Asia Pacific (APAC) has evolved rapidly in the last few years. As Sanjeev Jain, Payments and Receivables Head for APAC at Citi, observes, "I've been in the industry for 25 years, and the speed of change in the last five years has been phenomenal."

For one thing, says Jain, payments in Asia Pacific previously revolved around high value, low volume B2B transactions, with a focus on wire, automated clearing house (ACH) and cheque payments. All that started to change with the rise of e-commerce, although as Jain notes, banking and payment systems were not initially able to match the 24/7 nature of e-commerce.

"In the last five or six years, we've seen significant progress driven by regulators and banks," he adds. "Almost all Asian countries now operate some sort of 24/7 payments system, and that was a necessity – you can't have commerce seven days a week if banking is only available five days a week."

Streamlining payments and collections

Companies are also increasingly embracing the direct-to-consumer model to sell directly to their customers via websites and digital stores – an approach which requires businesses to offer customers multiple payment options. In 2020 Citi launched its Spring by Citi service, which enables businesses to offer their customers a range of digital payment methods.

"For example, an online furniture retailer who is selling furniture online, needs to collect payment from its customers," says Jain. "At the checkout point on the website, the company uses Spring by Citi to collect from its end consumers using credit cards in the first instance, followed by bank accounts and wallets. We are widening the choice of payment options available to our clients' end customers."

At the same time, developments such as APIs and the use of QR codes are opening up new services that can streamline different elements of the payments process:

- **APIs.** A few years ago, opening an account with an asset management company overseas was a lengthy process that included sending physical cheques in the post – but today, says Jain, "I could register myself on the app and key in my account number, which they would send to Citi via API for verification." At the transaction level, the asset management company can also use APIs to confirm that funds have been credited to the beneficiary account.
- **QR codes.** Increasingly widespread in many parts of Asia, QR codes not only streamline customer payments but also instantly provide companies with information related to those payments, such as the invoice number, invoice amount and customer name. "Reconciliation is completed immediately, and the whole experience is very positive for the end customer," Jain notes.

Harnessing change

So, what do these developments mean for corporate treasurers? Traditionally, Citi's conversations with treasurers have focused on the efficiency of cash flows and how best to manage liquidity. "But today, as companies move to more digital methods of selling, they are being challenged by their procurement and sales functions to look at cutting-edge solutions from their banking partners."

Banks are increasingly broadening their interactions with corporate clients by engaging with people within the organisation beyond treasury – and at the same time, treasurers are starting to play a more significant role by helping the sales, commercial and procurement functions achieve their goals. As such, Jain notes, "treasurers are coming to us for solutions that will help them enter new markets and create new business lines."

A further significant shift in the payments landscape is the SWIFT-led adoption of ISO 20022. A key milestone was reached in March 2023 with the start of the migration to ISO 20022 for cross-border payments and reporting (CBPR+). Jain points out that the arrival of rich data has significant benefits for corporations: "You can send a lot more detail using the ISO 20022 format, including full invoice details." In addition, more accurate data enables more effective sanctions screening and greater levels of straight through processing.

Tackling fraud risk

Where security is concerned, Jain points out that fraud represents a tiny fraction of the trillions of dollars of payments that flow through transaction banking systems – "but security is clearly very important. Clients can connect with us through file, through online banking portals and, increasingly in the real-time economy, through APIs. And for each of these, we've invested in state-of-the-art security."

As well as employing the highest level of encryption, Citi has also created additional functionalities within its payments services. "Based on our clients' historical patterns, we can start mining that data and flagging payments that look like outliers," says Jain. "So, if you're making a rent payment every month for the same amount, and one month it is three times the usual amount, we would flag that to the client."

In summary, says Jain, "Innovation has helped to accelerate the growth of our payments business in the last few years. So, we see the innovation around payments as being very positive both for our clients, and for Citi." ■

Sailing into uncertainty

The container shipping industry, responsible for transporting 90% of traded goods globally, posted record-breaking profits during the pandemic but shipping groups face more challenging years ahead. From rolling out new strategies away from pure container plays to deciding when to invest in green ships or anticipating the impact of geopolitics on trade flows, treasury teams have much to navigate.

Michael Kastl, Managing Director, Treasury, Finance and Investor Relations at Hapag-Lloyd joined the container shipping giant in 1996 but in all his 25-years in the industry, he's never seen today's abundance of cash.

Prior to the pandemic, Hapag-Lloyd had a typical liquidity reserve of US$1-2bn, topped up when needed with fresh funds drawn from financing assets or raising money in the capital markets.

After the pandemic – and before the company paid bumper dividends of US$12bn earlier this year – treasury had around US$20bn sitting on the balance sheet. Such largesse has turned Kastl from liability manager to asset manager, switching his treasury focus to areas like counterparty risk and the best places to assign liquidity.

That means low risk MMFs, investing in overnight repo transactions and a new allocation to a special investment fund

outsourced to external asset managers that doesn't sit on the group's balance sheet as cash or cash equivalent, he tells Treasury Today in an interview from the group's Hamburg headquarters.

"With interest rates at current levels, if you have US$9bn sitting on your balance sheet you can earn a lot of interest," he says. "We currently have a net cash position of US$3.9bn, something I've never seen before."

Elsewhere Hapag-Lloyd has invested in new terminals in North and South America and India via an acquisition of SM SAAM's terminal business and related logistics services, and a 40% participation in Indian terminal operator J M Baxi Ports & Logistics, respectively. The company is also pouring money into the energy transition. It's begun taking delivery of 12 new dual-fuel vessels, using long-term green financing and paying the equity portion off in cash, and is spending money on refitting ships to increase carbon efficiencies.

The pandemic transformed the container shipping industry, showering the sector with unprecedented riches that operators like Hapag-Lloyd are unlikely to ever see again. Lockdown-fuelled demand for goods sourced from China and Asia coupled with a reduction in supply chain capacity and labour shortages, turned container shipping (never much of a money spinner) into one of the pandemic's biggest winners. Not every company publishes its financials, but Simon Heaney, Senior Manager at shipping consultancy Drewry Maritime Research estimates between 2020 and 2022 the industry made a collective profit of US$500bn. "This equates to as much profit in a two-to-three-year window as the industry has made in its entire history previously," he says.

Kastl isn't the only treasurer for whom the amount of cash washing around has led to a different kind of approach. As well as buying new ships and doling out dividends, many groups used their liquidity to pay down debt, repair their balance sheets, boost creditworthiness and deleverage. Danish giant Maersk has invested in broader transport activities, buying airfreight and logistics infrastructure to become an overall logistics provider and French competitor CMA CGM has bought a stake in Air France-KLM as part of an air cargo partnership.

But today the industry is coming down from its pandemic-induced sugar rush. The latest earnings reveal margins are shrinking with analysts predicting companies will lose money in the coming years as global demand for container goods falls. It's a tougher trading backdrop for companies also facing strategic challenges like moving away from a pure container play, judging when to invest in green ships or how shifting trade patterns might impact on their business.

New ships

A bulging order book for new vessels commissioned during the pandemic and up for delivery in the coming years, is set to create overcapacity and push freight rates lower. Drewry estimate 890 new ships coming into the market, equivalent to 28% of current global capacity, and deliveries this year alone are expected to add 1.75 million TEUs (20-foot equivalent unit) or about 6.6% of the total fleet. Rodolphe Saade, Chairman and Chief Executive Officer of France's CMA CGM Group recently warned that market conditions are set to deteriorate with new vessel capacity "likely to weigh on freight rates."

Freight rates will also come under pressure because of state-owned actors in Asia like China's giant COSCO Shipping wanting to keep freight and supply chain costs low to support exports and aid the recovery. "Sometimes, state-owned industries are the most aggressive when it comes to pricing and bringing the prices down because they want to support their exports," explains John McCown, a New York based shipping expert.

But shipping groups have strategies to support their businesses if freight rates sink lower without eating too much into cash reserves. They can reduce capacity by stepping up the pace of getting rid of their old ships, suggests Heaney. "The container industry has been good at ordering more efficient, and greener ships, but it has not been so good at clearing out the old clunkers."

In another approach, operators can slow down crossings so that ships consume less fuel and save money. This approach also includes running additional ships, explains Peter Sand, Chief Analyst at Xeneta, the ocean freight rate benchmarking and market intelligence platform. "During times of overcapacity, operators can extend transit times and add another ship into circulation to prevent rates and earnings from falling."

Another way of reducing cost is to go round the Cape rather than through the Panama Canal, he continues. "You may burn more fuel going round the Cape, but you will save money by not going through the Suez. We are seeing a number of providers seeking to save the US$700,000 fee for a one-way ticket through Suez."

At Hapag-Lloyd, strategies to deal with capacity increases can now include better access to terminals thanks to its recent acquisitions. Shipping groups often run ships at speed to secure access to terminal slots – only once a ship has arrived at a terminal does it have a commitment to berth. Owning terminals helps solve the problem, allowing the company to run ships slower and better manage the imbalance between supply and demand, explains Kastl.

In another strategy, industry experts say freight rates might find support if the sector transports more goods that used to travel in bulk carriers or specialised ships, like refrigerated vessels. Although grain is still moved in bulk carriers, commodities like bagged flour and coffee can go in a container, offering new business opportunities to container groups, says McCown. Container ships also have an advantage over bulk and specialised carriers because they are less likely to travel back empty since their customers are scattered around the world. "Container ships operate at 75% of their total loads and this is an inherent advantage over cargo," he says. "I think we will continue to see the transition from other types of ships to container ships." But it's not an argument that holds much water with Kastl. He believes containerisation has reached its height apart from headroom in some markets like India. "The market has already shifted a great deal here."

Timing the transition

Timing the transition is perhaps one of the biggest risks for container shipping groups ahead. Some of the new ships coming off production lines are dual-fuel, able to run off conventional bunker fuel, a diesel bi-product, LNG and methanol. However, in a sign that operators are also waiting

for more progress in renewable fuels before they sink billions into their next generation of vessels, not all the new vessels are green. "The whole maritime sector is heading towards decarbonisation, but not all these new orders are green," says Sand.

Operators are delaying decision making because of unknowns around which fuel will lead the transition, its availability and price developments. Hapag-Lloyd will use LNG as well as biofuels until the market in green fuels becomes easier to read. Although green hydrogen and ammonia has potential, the legislation around ammonia is unclear, and Kastl is convinced bio and e-methane will most likely become a key driver of the transition. "This is the way to net zero," he says. Only now access to biofuels remains complicated by its scarcity, particularly as other sectors like trucking and airlines jostle for share of the renewables market.

Analysts warn that new green ships starting to come online are relatively small, and say methanol-powered ships are still expensive to build and operate. "Methanol is four to eight times as expensive as traditional fuel," says Sand. "Being a first mover in the shipping industry is rarely rewarded." McCown suggests that investing in green ships too soon could put western groups (facing more pressure to decarbonise from stakeholders and regulators) at a disadvantage to Asian competitors who will catch up once clean fuels are more readily available and today's pricing dynamics have played out. "Operators don't want to pick the wrong team when they are investing for the next 20 years," he says. But as legislation tightens and consumer and stakeholder pressure grows on the highly polluting industry that emits almost 3% of global greenhouse gases, choosing not to invest in green ships could be even more risky. New ships running on fossil fuels with a commercial life of 20-30 years could quickly become stranded assets when the regulatory noose tightens.

For example, the industry regulator the International Maritime Organization has set new emission reduction targets, although they still need to be enshrined into individual country policy. Elsewhere, under the EU's emissions trading framework, shipping groups will have to buy respective emission allowances for each tonne of carbon emitted in European waters from next year. "We are reflecting this into our price calculations and how to pass onto our customers," says Kastl.

Add to this shipping companies meeting their own targets. Hapag-Lloyd targets net zero by 2045 supported by strategies like integrating KPIs around emissions into a 2021 sustainability linked loan.

Perhaps most pressure on shipping groups to invest in green ships will come from their corporate customers, given these emissions count in their Scope 3. Companies including IKEA, Amazon and Patagonia have signed a 2040 ambition statement for zero emission ocean shipping through a collaborative platform, Cargo Owners for Zero Emission Vessels. Today, the transport of IKEA products from suppliers to warehouses and stores around the world accounts for approximately 5% of the company's total carbon footprint. "There is a lot of money at risk and a genuine fear amongst ship owners with older ships that they won't transition in time and will have stranded assets if regulation prohibits them from manoeuvring," warns Sand.

Hapag-Lloyd has launched a green shipping product that offers its customers the ability to ship their goods on a carbon neutral basis, explains Kastl. "Biofuels are available in limited quantities at the moment, but we are very active on purchasing them to be able to offer our customers less carbon emitting transportation."

Trade trends

Like the energy transition, shifting geopolitics also hold opportunity and risk. Shipping routes between Asia and North America and Europe represent around 50% of global shipping lanes but new China +1 strategies characterised around friend-shoring as MNCs diversify their supply chains suggest changes ahead. Research from Xeneta finds that 56% of all containerised goods imported by the US from the Far East in 2022 came from China, down 10% from 2017. The biggest winner of this shift is Vietnam, which has seen its market share almost double, from 6% in 2017 to 11% in 2022.

Emerging manufacturing countries still lack port infrastructure compared to China which boasts four of the five biggest container ports in the world. But as manufacturing operations take off in countries like Vietnam and India, it will create more opportunities for shipping groups around intermediary trading. "If a company sources from China to consumption centres in the west, that is just one shipping voyage," explains Heaney. "The number of journeys will increase because manufacturers in, say, Vietnam or Thailand, will source goods from China, and then ship their final products to Europe. There will be more shipping because of diversification," he predicts.

Moreover, a shorter journey from "friendly" new manufacturing centres in countries like Mexico to consumers in North America, doesn't necessarily mean a dramatic fall in shipping costs, says McCown. "The cost will remain high because less goods are being shipped and they won't use the same big ships. Even though it is one third of the distance it doesn't mean it is one third of the cost."

Kastl concludes by reflecting on his treasury priorities ahead in the notoriously cyclical business. Since 2020, when the new IMO regulation said that ships could only use low sulphur fuels, the company adjusted its pricing mechanism in its contracts from bunker adjustment clauses to a more holistic marine fuel recovery formula. It means the company's risk from ups and downs in fuel pricing can be passed on to customers. "Our hedging activity on fuel prices is now less than what we hedge in FX or on the interest rate movements in our debt positions."

Inflation will dampen global trade, and he says weakness coming out of China will mean lower volumes, and the industry will have to adjust capacity. But higher interest rates are boosting returns on the company's cash pile and the sector has firepower at the ready, whatever the challenge. "Whatever cycle is ahead, the shipping industry is sitting on robust cash positions and is better equipped than in the past." ■

Treasurers lean into their digital aspirations

Treasurers are well placed in their organisations to lead innovation and embark on digitalisation projects. While they agree on the importance of technologies like artificial intelligence and machine learning, bringing their digital vision to fruition is easier said than done.

Treasurers' personal lives are digital, and they are used to getting what they want when they want it online. At home, they can ask their smart speakers almost anything; their streaming platforms know what television shows they want to watch next; and they use their smartphones – with their unique combination of apps – as a remote control for their lives.

When it comes to their professional lives, however, the digital experience is somewhat lacking. And while the Covid lockdowns introduced Zoom calls and other digital tools, true digital transformation is still an aspiration for many corporates. Many treasurers who Treasury Today speaks to are still bogged down with manual tasks and processes that are based on Excel spreadsheets.

Meanwhile, the treasurers' role is becoming increasingly strategic, and many are expected to take on an advisory role to the various stakeholders in their organisations. Whilst over-burdened with manual work and outdated processes, however, they are unable to use their strategic brains to their full potential.

Added to these challenges, treasurers are working in an environment where the pace of innovation is increasing. Blockchain, digital currencies, artificial intelligence (AI), cloud computing – the list goes on – are just some of the topics treasurers need to wrap their heads around.

Amid this, treasurers have the opportunity to be at the leading edge with digital assets, for example. This is the point that Professor Philipp Sandner, an economist and Founder of the Frankfurt School Blockchain Center, makes. With new technologies such as blockchain, treasurers often underestimate the role they can play in innovation in their organisations. "Blockchain is very often related to finance – this makes the CFOs [chief financial officers] and the treasurers the

people to drive blockchain adoption in companies," he said in a previous **interview with Treasury Today**.

In driving the adoption of new technologies, treasurers need to have good relationships with the key stakeholders in their organisation – something that their roles are already demanding of them. Mark Sutton, Senior Manager at treasury and risk consulting firm Zanders, comments how the role of treasury has expanded significantly in recent years with the "C-suite relying more on the function as a respected voice on a wide range of strategic issues – from climate risk and social issues to the more traditional managing working capital, risk and financial forecasting," he explains.

In mapping out their digital aspirations for the future – and achieving a vision of a digital treasury – there are some key differences with the current state and what they are aspiring to. "It's now about elevating the levels of automation through real-time predictive and prescriptive analytics that enable faster and more informed decisions. In simple terms – the rapid evolution of technology is putting more powerful tools into the hands of corporate treasury to optimise performance," he says.

When asked about what the future of treasury looks like, corporate treasurers often paint a picture that features automation and artificial intelligence in this way. James Zhixin Zhang, Head of Treasury and Corporate Finance, Asia Pacific and China at Siemens Energy, for example, commented in a **previous interview** how automation, creating more efficiencies and gaining better visibility are major trends in corporate treasury. "These trends will continue into the future," he says, "but at the same time I think it is important for treasury to be more strategic, to think ahead, to think more broadly and not be reactive."

Treasurers are agreed on these major trends, but many have different understandings of what a digital treasury actually is. Sutton clarifies what he means by a 'digital treasury': "the ideal digital treasury function embraces both new and emerging technologies that go beyond automation and into the realm of predictive and prescriptive analytics to support informed real-time decisions which deliver elevated operational and financial efficiencies combined with an enhanced customer experience and increased shareholder value."

When asked the same question, Irene Thng, Executive Vice President and Group Treasurer at Toll Group, said: "To me, digital treasury means a robust system – preferably one with data from other systems integrated into it – which portrays accurate and real-time information relating to cash, FX [foreign exchange] and other treasury-related data."

Meanwhile Alexander Seelmann-Eggebert, Deputy Regional Treasurer, Asia Pacific at Nestlé, comments that the ideal digital treasury has reduced operational workflows and increased efficiency and visibility of data through the use of dashboards that can be easily used and understood to make strategic decisions on a daily basis.

Also, a digital treasury simplifies the front-end usage of treasury management systems and also the interface with other systems such as multi-trading platforms and SWIFT.

And there are other definitions out there for what a digital treasury actually entails. Technology company FIS, for example, defines a digital treasury as "achieving a best-in-class, modernised treasury function through the most secure, technologically advanced and cost-efficient means."

Treasurers will be using more powerful tools to carry out their traditional tasks, they will also have new aspects to their role, such as preventing cyber-fraud and improving security.

Consultancy Deloitte in its 'Digital Transformation in Corporate Treasury' report notes that digital transformation will look different for each corporate because of the variety in structures and processes. "However, we can still deduce a common definition, which is the adoption of new and emerging technologies into the business, to produce operational and financial efficiencies, centralise the overall reporting and automate processes," the authors of the Deloitte report state.

This feeds into the typical complaints that treasurers have. The areas they often most want to improve are related to regulatory reporting and a lack of visibility. Digital transformation, however, is more visionary than merely going through a list of complaints and checking off as each item is improved.

When asked what treasurers should be aspiring to, Sutton at Zanders comments, "there is no one size fits all view of a digital transformation of corporate treasury because each corporate is different and therefore each digital treasury function will look slightly different." However, having said that, he sets four key pillars that will help each individual corporate treasury function to establish the optimum foundation for a digital treasury. These four pillars are: operational agility and risk resilience; data-driven real-time vision; workforce enablement and elevating the customer experience.

Seelmann-Eggebert at Nestlé comments that the greatest aspirations he has in his role are the automation of front office tasks and data visibility. Also, he'd like to leverage existing solutions – such as Microsoft applications and treasury management systems – but also explore new tools and how they can be implemented in corporate treasury.

Meanwhile Thng at Toll Group's aspirations are related to the use of AI and what this means for the role of the treasurer. "My greatest digital aspiration is to 'outsource' data gathering and compilation to systems, AI and other technological tools. Human brains are reserved for decision-making exercises. At Toll Group, treasury is fulfilling this digital aspiration through a digital transformation journey."

The application of artificial intelligence poses many challenges for corporate treasurers, and is a **topic that Treasury Today has covered previously**. AI, however, remains top of the agenda for many treasurers with their digital transformation.

There are also numerous other technologies that are on corporate treasury's radar and part of the skill of the treasurer is understanding them and knowing where their resources should be invested for the future.

Of the new technologies that are available to treasurers, Sutton at Zanders comments on those that hold the most interest: "artificial intelligence and machine learning are being recognised as a key enabler of strategic priorities, with the potential to deliver both predictive and prescriptive analytics. This technology will be a real game-changer for corporate treasury, effectively re-defining the partnership between man and machine which will push the boundaries on what is possible to create a more integrated, informed and importantly real-time strategic function."

There are numerous tools and technologies that treasurers have to choose from, and Seelmann-Eggebert comments that it is difficult to name just a few of them. "I see a lot of potential or improvement of existing TMS and data visualisation, which is quite basic. AI of course will also impact treasury, but at this point of time it's hard to tell where and how it can/will be used. Another big topic will be CBDC's (central bank digital currencies), however I think there is still a long way to go until multinationals will benefit from those," he tells Treasury Today.

Seelmann-Eggebert also comments on the most exciting technologies and says he sees a lot of potential for improving existing treasury management systems and data visualisation, which is quite basic at the moment. "AI of course will also impact treasury, but at this point of time it's hard to tell where and how it can or will be used. Another big topic will be CBDCs – central bank digital currencies. However, I think there is still a long way to go until multinationals will benefit from those."

It can be challenging, and perhaps even confusing, for treasurers to navigate all the latest technologies and know how to apply them as part of a digital transformation journey. Knowing where to start can be half the battle, and many consultancies and vendors suggest a roadmap, or clear process. FIS, for example, in its e-book entitled '8 Steps to a Modernized Digital Treasury' lays out each of these stages and at each describes what the digital enabler is. The process starts with streamlining bank connectivity, which is enabled by API [application programming interface] technology. The next step is standardising payments, which has the enablers of SWIFT gpi [global payments innovation], blockchain and APIs. Then FIS suggests optimising cash visibility with robotic process optimisation, and also reconciling data with the same technology. The stage after that involves evaluating and managing risk, leveraging artificial intelligence as the digital enabler. Next is optimising bank account administration, then navigating the regulatory landscape and finally, simplifying technology consumption.

These steps above are easier said than done, however. It's often not about the technology itself, but all the people – the stakeholders that need to be brought on the journey – that need to be involved in any digital transformation project. Sutton at Zanders comments, "a very important point is that digital treasury is not a destination – it's a journey, that extends beyond the pure adoption of technology. And whilst technology is the enabler, in order to achieve the full benefits of this digital transformation journey, a more holistic view is required, which also embraces the importance of cultural change like the adoption of the 'fail fast' philosophy that is based on extensive testing and incremental development to determine whether an idea has value."

This element of cultural change reflects the importance of remembering that people in an organisation need to be included in any digital transformation. Also, the adoption of technology should not lose the human touch. And in an environment where artificial intelligence will be commonplace, it is essential to remember the importance of the human connection and place value on people skills, as Nishedha Gunawardena, General Manager – Treasury, at Sri Lankan conglomerate Aitken Spence, said in a **Corporate View profile for Treasury Today**. "Having really good human skills will be helpful – sometimes you cannot totally depend on an algorithm or a trading platform – I do not think that alone will be enough," he said when commenting on the proliferation of AI.

Remembering the need to bring people along on the digital journey is just one of the obstacles, or challenges, that corporate treasuries can face as they embark on their transformation.

Other obstacles that can appear as roadblocks along the way include resistance to change, a lack of transformation strategy, a lack of agility within an organisation – and ability to change without destablising itself – and new risks that can be incurred with the use of third-party vendors, according to Deloitte.

Sutton also comments on the challenges that organisations face in bringing their digital aspirations to life and focuses on the need for a proper data strategy: "whilst the new and emerging technologies will be supporting critical tasks, assisting with real-time decision-making process, and reducing risk, to truly harness the power of technology, a data strategy will also be foundational. Data is the fuel that powers artificial intelligence. However, most organisations remain heavily siloed, from a system, data and process perspective. Probably the biggest challenge to delivering on the AI promise is access to the right data and format at the right time."

Seelmann-Eggebert believes that managing cybersecurity risks will remain a key challenge in achieving a digital treasury. Also, he notes that the other challenges include the regulatory environment and the compliance and cost considerations that this entails. Another challenge, he says, is to focus on "a few tools that can offer solutions to several issues, rather than having different tools for each individual challenge."

Part of navigating the available tools and technology, as well as these challenges, is knowing which organisations to partner with. When it comes to fintech providers, the Deloitte report notes that many fintechs fail to achieve what they set out to because they fail to truly understand what their customers' needs are.

And this information-gathering process can be difficult on both sides. Thng at Toll Group comments on how she approaches relationships with technology vendors: "when vendors meet us, most of them only showcase the strengths of their systems and reporting capabilities – how powerful they are and why we should use them. I rely on informal discussions with my fellow peers in other companies to understand their experiences with respective systems and if there are any pain points which must be taken into consideration," she says. "Based on my experience, there is no 'one size fits all' and there is no 'perfect system' in the market. One solution could be to build one on our own which caters to the specific needs of Toll, but this could be expensive to achieve."

Such decisions point to the many considerations that go into achieving a digital treasury. And while their personal lives are digital on many levels, treasurers' professional lives are much more complex, with many systems, tools and technologies to contend with. While treasurers are clear on what their digital aspirations are, achieving them will be easier said than done. ■

Future of global transaction banking

The role of global transaction banks continues to evolve, driven by everything from the rise of fintechs to the emergence of new technologies. So how are treasurers' expectations changing? How are banks and fintechs working together? And what could the future look like for global transaction banks?

From geopolitical pressures to the increasing prevalence of subscription models, the business landscape is being reshaped by a number of pressures. At the same time, the role played by global transaction banks is continuing to evolve, driven by everything from the rise of AI to concerns about counterparty risk in the wake of some notable bank failures earlier this year.

In the wake of the pandemic, corporate treasurers are increasingly looking at how to move forward and thrive, rather than simply focusing on survival, says Bruce Meuli, Treasury Advisory Executive, Global Transaction Services at Bank of America (BofA). "They are asking more questions about how they can evolve, and which factors they need to take into account," he notes.

Competition, meanwhile, is ramping up. According to Celent's recent Corporate Banking Technology Insight and Strategy Survey (CTISS) of more than 214 banks globally, Tier 1 and 2 banks continue to experience increasing competition, with more than 60% reporting that it is more challenging to win and retain business than only one year ago.

In this environment, global transaction banks cannot afford to stand still. So, to what extent have banks already adapted to the changing landscape? How are treasurers' needs and expectations shifting in the current environment? And what could the future hold for transaction banking?

Drivers of change

Few would disagree that the world of transaction banking is undergoing something of a transformation. Christine Barry, Head of Banking and Payments Insights and Advisory at Datos Insights, notes that key drivers of change include:

- More demanding and tech-savvy clients who expect greater speed, automation, personalisation and integration.
- The continued emergence of fintech companies.
- A challenging economic environment requiring more data transparency, insights, forecasting and liquidity management capabilities.
- Unexpected events like the global pandemic and regional bank failures.

Naturally, the rise of new and emerging technology is an important catalyst. "The quest for 'intelligent banking' has driven a strong focus on advanced analytics and machine learning (ML) to the top of the priority list, along with process automation and open finance initiatives," says Patricia Hines, Head of Corporate Banking Research at Celent.

Fintechs, in particular, have much to offer with their ability to harness new technologies and develop new solutions quickly – and banks need to take note. "Banks are at risk of disintermediation if they don't partner with fintech companies," says Barry. "They must view fintechs as partners, rather than competitors, and position themselves as a central hub from which corporate treasurers can perform transactions, get advice and export data to external systems." As such, she notes that bank systems must be tightly integrated with fintech capabilities to create a seamless experience across platforms.

Meuli says that BofA's GTS business is increasingly adopting a partnership model that encompasses technology vendors and fintechs. For example, BofA's Pay by Bank online payment solution was launched in 2022 in conjunction with UK fintech Banked Ltd. The solution enables customers of e-commerce companies to make payments directly from their bank accounts.

"There's been a change around the role of a global transaction bank and how they partner and deliver aspects of a service or operational execution," says Meuli.

As he explains, this has increased the complexity of the bank's internal delivery model – "It's not just GTS, it's GTS collaborating with different partners." This, in turn, requires banks to build up their own digital acumen – although as Meuli points out, there is a growing need for banks to provide not just product specialists, but also people who can "sit in the middle, understand the client business, and then communicate that back into product delivery."

Enabling commerce

On another note, Manish Kohli, Head of Global Payments Solutions at HSBC, argues that transaction banking is "a shining example of where the banking industry adds value to how customers do business. It's also at the intersection of true banking and technology."

In the last few years, says Kohli, the role that transaction banks play in their clients' organisations has changed tremendously. "A few years ago, we were looked at as the fulfilment arm of payments, settlement and commerce, as well as enabling liquidity to be managed," he recalls. "But now, when I have conversations with clients, the focus is more on how we can enable commerce for those businesses and help them grow and become more global. So that's a very different type of conversation."

Likewise, says Kohli, the bank now interacts with a broader selection of stakeholders across the organisation: while the treasurer remains the "landing point", the bank also engages

with CFOs, commercial teams, payment engineering people, procurement and HR. "Related to that, clients also look to us in an advisory capacity to find out how they compare to their peers, and where they should focus on making improvements."

Meeting treasurers' expectations

When it comes to selecting a banking partner, many of the priorities that treasurers focus on are longstanding. Citing internal research by BofA, Meuli notes that the top three RFP selection criteria continue to be customer service, pricing and ease of doing business.

A bank's ability to advise corporate clients is another important differentiator: "I have found that treasurers respond very positively to receiving impartial advice – not just based around what you as a bank can do, but actually providing market and industry advice," says Meuli. Recently, he adds, treasurers have also been asking a lot of questions about the impact and risks of generative AI in response to greater levels of interest from the CFO and the board.

In this environment, it's no surprise that treasurers' expectations of their transaction banks are somewhat shifting. "Treasurers increasingly expect a hybrid high-tech and high-touch approach," comments Hines. "The largest banks offer a cadre of former treasury and finance professionals as advisors to treasurers, helping them to develop strategic plans and overcome operational hurdles."

Datos Insights' Barry adds that as global transaction banks evolve from transaction providers to advisors and deeper partners, "corporate treasurers are increasingly looking to their banks for more than simply loans and the ability to make payments. They expect their banks to understand their specific needs and provide a personalised experience."

As Barry notes, treasurers also expect more tools to help them effectively manage their businesses and succeed in a challenging environment. "For example, they require liquidity management tools as well as real-time payments and integrated receivables," she says. "Further, they expect tight integration of products and data not only across the bank but also with any external systems they may be using." Barry says banks should respond not only by broadening their capabilities and partnering with fintech providers, "but also by opening their platforms and leveraging analytics for greater insights to better position themselves to provide data-based advice."

Future role of transaction banks

So, what could the future hold for transaction banks? Hines predicts that "transaction bank winners will leverage their treasury and technology expertise to help their corporate clients to create new business propositions, whether to offer real-time insurance payouts to consumers, support crypto payments in the metaverse, or enable buy-now pay-later financing to equipment dealers."

Addressing competitive pressures is also likely to be a priority. As Hines notes, "The CTISS survey found that whether via open banking, embedded finance, or Banking-as-a-Service, 75% of corporate banking respondents stated that they have a clear strategy with engaging in the open ecosystem."

Kohli argues that the biggest mega trend is the continued move towards a world in which economies are becoming more digitised. Ten years ago, he points out, getting a taxi typically involved handing cash to a cab driver – in other words, a single, analogue transaction. With the rise of ride hailing apps, however, "this has become multiple digital transactions. Your account is debited electronically; the platform keeps a certain percentage, and then sends the driver the remainder."

In an increasingly digitised world, Kohli predicts that clients will increasingly look for new digital connectivity tools including APIs and real-time payment solutions. "Payments will become a greater competitive differentiator," he says. "And as that happens, the whole infrastructure that banks provide will change tremendously. We're talking about 24/7 real-time, always-on, always connected systems that are processing microtransactions, at scale, instantaneously."

Meuli, meanwhile, says treasurers increasingly see transaction banks as part of their end-to-end business execution. As a result, there is a greater need for banks to provide relevant data back to their corporate customers. "It's also about corporates seeing the bank as part of their extended organisational delivery model, and as a partner," he adds. For corporates, knowing that transaction banks will take on that role "de-risks their business and their deployment of technology."

Barriers to progress

While the future may be bright for transaction banks, there are nevertheless a number of obstacles banks will need to address. For example, Barry cites ageing technical infrastructures, the need for a more tech-based versus product-based sales strategy, the speed at which technology is evolving, and the growing presence of fintech companies.

As Hines warns, "Large corporates and multinationals with tens of banks and hundreds of bank accounts often turn to well-funded third-party treasury technology firms, whether for treasury management systems, payables automation, receivables automation, cash forecasting, payment factories, etc." She argues that this could leave bank partners "solely as a distribution channel for bank statement and balance data, and a connectivity partner to payment rails."

Meuli says banks will need to continuously invest and keep focusing on the right solution models to bring to market. He points out that continually improving technology delivery for clients "is always a major focus – leveraging internal technology capabilities, partnering with strategic technology providers and delivering seamlessly to clients."

Regulation, meanwhile, is likely to continue to be a significant pressure point for transaction banks. "In many cases, regulators will ask for the localisation of data and processes. This can run counter to how global banks operate, with consistent global platforms and shared service centres," says Kohli. "So, when countries have more nationalistic requirements – all for good reasons – it can put pressure on banks, and on their multinational clients." Finally, as business models increasingly focus on direct-to-consumer, always-on models, "The challenge will be to keep up with our infrastructure that has historically been built for batch-based systems, with large value, low volume transactions," says Kohli. "We're now moving towards 24/7, high volume, low value transactions."

To support this shift, it's essential that banks invest in their infrastructure and resiliency, Kohli concludes. "With clients' demands changing so rapidly, the challenge for banks is to keep up and make sure that we're bringing new solutions to market that can solve our clients' global needs." ■

Corporates drive API innovation

Treasurers are making greater use of application programming interfaces to improve financial information flow, particularly those focused on maximising the value of their ERP systems.

Treasury appetite for exploring API solutions for real-time bank balance/transactional information and payment status updates continues to grow. There is also increasing acceptance that the business case for custom development is weak, pushing treasurers towards solutions offered by treasury system vendors or the major cash management banks.

"Especially for cloud solutions, vendors leverage the API technology in trade platform integration and bank connectivity for payment order transfers, cash balance updates and payment status updates," observes Michal Šárnik, Senior Manager at Zanders.

In many cases, treasury teams are leveraging a TMS or ERP in combination with dozens of banks spread across the globe and need APIs to help streamline the flow of information between these banks and their back office systems, explains Joerg Wiemer, Co-founder and CSO of TIS.

"But because API development within the ERP environment has been slow and connecting with dozens of individual bank APIs is difficult for corporates to manage on their own, sometimes the easiest approach is to leverage the APIs of a third party," he says.

According to Šárnik, integration with ERP platforms is still rare. However, one of the most interesting applications of APIs at multinational healthcare company Fresenius is between its SAP ERP system and the company's self-administrated data lake.

"Prior to the API we used the upload and download function for Excel-based files," explains Christopher Zimmermann, Head of Treasury Operations at Fresenius. "Now we have highly automated Power-BI reports based on our data lake, where we store and process data from various sources and databases."

The company has discovered that the timeframe for installing, testing and implementing an API varies widely. The implementation referenced above took less than three months, whereas for another API the complexity involved means it could take ten months or more to find a suitable solution.

"Apart from the financial benefits, the time saving and improvement in data quality and availability are significant," says Zimmermann. "When looking at our liquidity management, for example, we can monitor our cash position in various currencies with all our banks very closely and even reduce the minimum cash that is needed for operational activities. In addition, many tasks were previously either non-existent or had to be performed manually."

Citi client Toyota Financial Services (the North American captive finance arm of Toyota) has built a centralised platform by compiling an API stack to enable subscription management, billing and payment services for end customers including customer and merchant onboarding. The APIs have been designed to be payment processor and customer/merchant agnostic.

"When Toyota entities are preparing to integrate with the platform they can access and set up all requisite APIs within just two business days for testing and validation," explain Jyoti Swain, Domain Information Officer Treasury, Billing & Payment and Arindam Das, Information & Digital Systems Toyota platform Factory Owner.

The APIs help Toyota Financial Services businesses scale more effectively by allowing them to add new features or services without the need for extensive internal development, facilitate secure access to data stored in different company systems, and create personalised and integrated experiences for customers across websites, mobile apps and third-party platforms.

"Toyota platform APIs are a foundational element of our digital transformation efforts, enabling us to modernise legacy systems, adopt cloud technologies and embrace new digital business models," adds Swain.

James Krikorian, Vice President and Treasurer of Krispy Kreme Doughnuts explains that his global treasury has evolved over the six years since he joined the company.

"At that time I was responsible for the US and UK equity markets – now we are in more than half a dozen countries as far afield as Australia, New Zealand and Japan," he says. "When we started to really take control of cash it was clear that I needed some technology and after assessing a number of global banks and fintechs we decided to go with Trovata."

Reinforcing the message that this would be a long-term commitment was an important first step. "It is hard enough managing treasury on a daily or weekly basis, never mind longer-term," says Krikorian. "I made it very clear that if we were going to invest in APIs, we would have to execute a multi-year contract not unlike those we have with our global banks."

Krispy Kreme now uses APIs for all its cash forecasting globally across multiple banks and currencies.

"It is essentially a data lake, like a search engine for banking transactions," he adds. "Banking platforms are not particularly suitable for searching for transactions. These APIs essentially harmonise and consolidate where our banking data is kept and enable us to search back not just days or weeks but years to meet the demands of external and internal stakeholders."

The implementation process was pretty straightforward in that all the heavy lifting was done by the fintech and Krispy Kreme's domestic bank. The value lies in the forecasting mechanism of using past flows to predict future flows.

"Our business is pretty predictable," says Krikorian. "We are in the doughnut business so Fridays tend to be busier than Wednesdays, for example, and I use this real-time data to inform future cash flows. Short, medium and long-term forecasting used to take up a lot of my time – now I can periodically stress test it to make sure nothing has changed, which is important for a company that is experiencing double digit organic growth."

The APIs enable the collation of data from the host of foreign entities the company has with different banks around the world into a single data lake.

"The primary benefit is having an accurate cash forecast because money is expensive," says Krikorian. "I happen to be in a debt position, so I never want to have cash hanging around unnecessarily and the way to achieve that is by having optimal cash and by definition optimal forecasts."

The company's next objective is to create a single ERP system globally to further unlock some of the benefits of shared services and notional pooling.

"When I started we had roughly US$650m of global revenue – today we are over US$1.5bn," says Krikorian. "I don't have any more resources than I did six years ago, but I have better processes and partners that can allow me to fit more volumes and flows through sturdier pipes."

Expense management solution vendor Moss uses APIs from Deutsche Bank for payments and real-time reporting to automate internal and customer-requested transfers.

"Working with fintechs as payment service providers we are used to easy-to-understand API documentation and sandbox environments to ease implementation," says Maximilian Traugott, Head of Business Operations. "With Deutsche Bank being a global bank with the resulting legacy systems we were braced for a tough ride and indeed the API documentation was more complex, technical and sometimes opaque, while required deployments might happen within a week rather than a day. However, the extremely hands-on support from the project and technology teams meant the implementation took no longer and weekly touchpoints, clear tracking of open to-dos and sparring more than balanced the points mentioned above."

The benefits include maximising customer control over both their funds and spend, and the time saved by the internal payment operations team who can now focus more on value adding tasks, such as monitoring and ongoing improvement of the payment platform.

The above examples – and the following comments – underline the scale of the battle for API leadership.

When it comes to APIs, banks build the best that they can. However, these software interfaces tend to have a lot of issues and don't move very fast. That is the view of Brett Turner, CEO of open banking platform Trovata, who says this creates a number of issues for companies that want to get information directly from their banks.

"The banks are saying the only way to do that is if companies build the APIs themselves, which they are never going to do," he says. "In many cases they get hardly any IT resources to begin with and their company is not going to spend three or four months and then implement an ongoing programme to continue to update and manage those APIs."

The focus of the API development programme at FIS is on connectivity with solutions that treasury departments can benefit from, for example establishing API connectivity between its risk management and treasury solutions. "Externally, we have worked with banks, trading platforms and rate providers to streamline client connectivity," explains Steve Wiley, VP Treasury Solutions.

TIS plans to further expand the number of APIs it offers with third-party systems and banking partners. Its other priority is to extend the benefits of these APIs to areas such as the automation of direct debits, recurring payments and cash pooling or sweeping. "We have also just introduced a new tier of APIs for vendor master data screening that can directly exchange sanctions screening and security data with corporate ERPs and banks," says Wiemer.

ION Treasury has been focused on expanding the API in Wallstreet Suite so customers can more easily get data out of the risk management system and into business intelligence tools.

"We have also re-engineered our treasury and risk management solution to be a set of independent components that share data through APIs and created an integration hub to sit between third-party applications and our treasury management systems," says Chief Product Officer, Michael Kolman.

One of Fiserv's key initiatives involves the migration of all its API products into a unified portal for everything from API discovery and trial to credential management and support services explains Alvin Cho, VP of Product & Engineering, Digital Innovation & Transformation.

From a bank perspective, Patrick Langeveld, open banking expert at ING refers to an uptake in demand and implementation from Nordic clients exposed to an advanced payments system, while Philippe Penichou, Global Head of Sales, Wholesale Payments & Cash Management at Société Générale says corporate interest has grown strongly over the last 12 months.

"While fraud prevention is a key topic, the ability to make urgent payments outside of the normal workflow done via standard ERP procedures is more broadly interesting, mainly for marketing reasons in the B2C space," adds Penichou.

Deutsche Bank recently launched an API that enables automatic validation of beneficiary details in real time, before a payment is executed observes Kerstin Montiegel, Global Head Client Access & Services at Deutsche Bank. "Our most recent API clients come from the insurance sector, life sciences and automotive," she says. "Real-time treasury is increasingly becoming mainstream."

The accessibility and packaging of API connectors has room to grow for corporates according to Bob Stark, Head of Market Strategy at Kyriba. "However, the digital footprint of a corporate treasury app is becoming lighter and we will continue to see progress as treasury teams are presented with more opportunities to use an API instead of legacy data transfer methods," he concludes.

Tapping payment opportunities

How are payments evolving and what steps should companies take to tap the opportunity?

Kaiwan Turel
Director
Treasury Solutions Group,
Asia Pacific
HSBC

The payments landscape has undergone structural changes over the past few years. New infrastructure such as real-time payments systems, new regulations such as allowing non-bank payment service providers (eg, e-wallets) to access these networks directly, as well as the ambition of and competition among industry players, have transformed the sector. Until recently, there was a huge mismatch between what was possible and what was happening, but we are now seeing the commercialisation of the infrastructure as adoption from big corporations to SMEs accelerates.

When I started my career, payments infrastructure was characterised by one-way, time-bound payments either as a batch or file-based that provided limited visibility. Once people had paid for their goods and services, the transaction was over and treasury teams were focussed on reconciling payments efficiently by the end of the month.

Because real-time payments systems are available 24/7, with near-instant settlement and same-day reconciliation, it has revolutionised the way businesses transact. Leveraging technologies such as APIs, companies can devise innovative straight-through processes in which payments are a part of an overall customer experience. Real-time payments are also helping bring the unbanked into the financial system. For example, HSBC partners with companies in Egypt to facilitate direct payments into e-wallets.

E-commerce has taken off on the back of digital payments. We increasingly support companies that have been relying on traditional distribution models to move to a D2C (direct-to-consumer) model that no longer depends on intermediaries. We are observing this trend across a wide range of sectors including logistics, pharmaceuticals distributors, the auto industry and insurance companies. There is certainly an element of the old guard reinventing themselves.

As companies move into the D2C space they are looking for scalability, capacity and variety in terms of how they collect payments because their customers want options. For example, companies need to support customer purchases via bank transfers, QR codes, credit cards and e-wallets in different locations across their physical, online and mobile stores.

One notable change we at HSBC have observed is that we no longer just speak to a client's corporate treasury team. We also speak to their strategy and business development teams because they are also supporting how these new systems work and connect.

Changes in how we pay means MNCs must adapt their treasury function to become more strategic and resilient, ie, putting technologies, particularly APIs and RPAs, to effective use in payment and transaction flows and treasury processes, leverage data optimally, supporting the broader supply chain and addressing risks of payment errors, information security and fraud. As businesses pivot to D2C models, 24/7 collections and payments on demand, treasury teams must be able to adapt. We have clients who have seen the number of digital payments they process jump significantly. Add payroll on top, and it's a big responsibility leading to increasing levels of specialisation for the treasury function.

The transformation in payments has implications for working capital management and the efficiency of processes, particularly because the cost of capital is now higher. Because interest rates remain elevated, there is increased focus on self-funding, better management of receivables and driving efficient realisation and use of internal cash. Digital payments are also changing the way companies can engage with their stakeholders to tap into competitive advantages, for example by using supply chain finance to support their broader ecosystem.

Can Balcioglu
Vice President, Treasurer
PayPal

As many companies expand their business models to place e-commerce as a more prominent feature in their retail strategy, treasurers must consider certain challenges such as ensuring systems integration for a seamless omnichannel shopping experience for their customers, accommodating a variety of payment methods and managing activity through new geographies and currencies.

Whether a company's business is digital, omnichannel or a platform/marketplace, choosing the right payments service provider to partner with is one of the most important decisions a CFO or treasurer must make.

To navigate the complexity inherent in the payments ecosystem successfully while providing the best experience to your customers, companies will need payments processors who will provide a stable, secure and scalable platform that is able to support growth across multiple channels and geographies.

Based on our experience, a few important factors to consider for a company in making this decision include:

- Look for a provider that can provide a transparent pricing model to help you manage your costs; however, refrain from choosing based on cost alone as there are many other factors to consider.
- Ease of integration of your systems to the payments platform provided by your processor is key.
- Your payment partner should help your company meet customers across different channels and devices and allow your customers to use whatever funding source or method they want to use.
- Look for a provider who can improve approval rates to boost your bottom line while providing services to proactively reduce fraud and chargeback risks to help manage losses.
- If you are servicing customers internationally or have expansion plans into new geographies, it is imperative that your provider is able to connect you to local payment schemes globally. Your payments provider should be a trusted partner to you as you navigate the complexities of FX conversion, compliance with local regulation and tax rules, for example.
- Finally, look for a provider that will offer a variety of value-added services and capabilities, to support your business as you grow into new offerings and verticals.

The pandemic accelerated the shift to new digital business models such as D2C, Direct to Store and B2C/B2B online marketplaces. Here are a few factors treasurers will need to consider with regards to payments under these new business models.

- **Systems integration:** it is not unusual for companies to have fragmented systems for their existing sales channels; supporting new sales channels will require additional systems investment for better integration with these existing systems.
- **Managing losses:** expanding into new digital channels will require treasurers to manage a higher volume of smaller transactions, which can increase chargeback and fraud costs.
- **Managing FX risks:** directly selling to customers online is a cost-efficient way to access international markets; however, expansion into new countries brings new challenges for treasurers. For example, companies will have to think about presenting prices in local currency to boost sales.
- **New payment methods:** selling through new digital channels and international markets brings in new customers who will have specific expectations when it comes to payment methods they want to use. It is a significant burden for companies to try to offer these local payment methods by themselves, without the help of a payment provider with appropriate expertise.
- **Safeguarding customer data:** businesses expanding into new jurisdictions will have to ensure they comply with all local customer data safeguarding and privacy requirements in line with local regulations.

Payments data (data that can be collected from customers managing and moving money) can offer valuable insights into customers behaviour and needs. This data can be used to increase customer engagement, unlock new streams of revenue or manage risk better. However, safety and security are critical factors when utilising this type of data.

Recently, we are seeing the rise of "embedded finance" – essentially companies providing their customers with a financial product during a non-financial commerce experience.

While this concept is not new, digitalisation of commerce brings about many new opportunities in this front. Shopping carts, various software solutions, digital wallets all provide companies who are advanced in their digital journey to interact with their customers and provide financial products as a natural part of their experience.

These products range from transactions and deposits accounts to payments and lending related services. Such add-on services can provide companies with valuable data and insights about their customers.

Technology companies and other non-financial institutions with a large base of captive customers (eg online retailers and marketplaces) are using embedded finance to provide better customer experiences, increase engagement and sales and gather additional customer data that can be used to offer improved or new products.

For example, PayPal enables merchants to offer a BNPL product to their customers during their online shopping experience – this, in turn, maximises customer engagement, increases sales for the merchant and provides a better retail experience for their customers.

Read more online ■

Next question:

"Transaction banking in Asia: from cash management to supply chain management or support with cross border trade, where are the region's corporates most focused?"

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

treasurytoday.com