A Guide to *the future* of Treasury in Asia

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CONTENTS

04. BANKS
Banks Strategic Choices Amid Disruption

08. COUNTRY FOCUS: *China*
China's Vitality Undimmed by Challenges

12. PAYMENTS
More Disruption to Come for Asian Payments

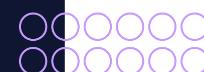
16. LIQUIDITY MANAGEMENT
Liquidity Concerns Rising Among Asian Corporates

20. COUNTRY FOCUS: *India*
India: the frontier of payments innovation

24. TRADE
The Future of Trade in Asia is Evolving

28. RISK MANAGEMENT
New Parameters Surround Old Risks

32. REGULATION: ESG
Navigating Asia's Changing **ESG Environment**



Welcome to Scanning the Horizon, our new publication examining the issues facing our Treasury and Trade services clients in North and South Asia. We aimed to make the content as agile, forward-thinking, strategic, technical and long-lasting as possible.

We understand that managing liquidity is an ongoing lift, especially while supply chains are being reconfigured, capex is elevated and the cost of borrowing is high. But these dark clouds do not completely block out the light on the horizon. There are exciting new developments around the corner, especially in payments and treasury technology.

The last five years have seen more disruption in the corporate institutional payments space than the previous twenty. This disruption is set to only accelerate over the next few years. While innovation in payments is promising, it creates challenges for treasurers looking for standardization and consistency. Turning the promise of instant and 24/7 cross-border payments, as well as Central Bank Digital Currencies (CBDCs), into reality needs major work on the regulatory, infrastructure and technology fronts.

Treasury is also able to play an increasingly important role in making the world more sustainable. New standards are coming and supply chain finance is proving to be a valuable tool in increasing the sustainability of global trade.

What the horizon is really showing us, however, is that the treasury function is changing. It is becoming central to the new business models that companies are adopting and meeting the wider challenges our planet faces. It is no longer a facilitator of transactions; it is an enabler of entirely new business lines.

Citi expects one-third of all global economic activity to take place over digital platforms by 2025.[1] This means payments will remain a core strategic focus for companies in the months and years to come. And treasury will be central to making this happen.

In our third-quarter 2023 results released in October, our CEO Jane Fraser said: "last month we announced consequential changes that align our organizational structure with our strategy and changes how we run the bank. When completed, we will have a simpler firm that can operate faster, better serve our clients and unlock value for our shareholders."

These changes include aligning our business in Asia geographically towards North Asia and South Asia. To reflect this, this publication includes a deep dive into the treasury landscapes in China and India, two essential markets in the wider region. We remain committed to helping our clients navigate the complexities of these two countries, with very different treasury landscapes.

Our aim with this publication is to arm our clients with a guide to what the future might look like. It also provides the context around the solutions we offer. These include Spring by Citi, which allows online merchants to present multiple payments options to the customer at the point of sale, and CitiDirect Commercial Banking,[2] which gives our clients a consolidated view of their Citi banking relationship across cash, loans, trade, FX, servicing and onboarding, allowing them better visibility and heightened risk management capabilities.

Citi has always worked to guide our clients through turbulent and challenging times. While the immediate path ahead may be rocky, there is a bright horizon up ahead.

Mridula Iyer
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BANKS STRATEGIC CHOICES AMID DISRUPTION

Developments in financial technology continue to present both significant challenges and opportunities for banks operating in the region, especially payments technology. Competition between banks and fintech companies is evolving and regulators are providing a positive enabling environment.

If you want to see what the future holds for banks in Asia, the best place to start is to look at what they are doing. Citi has done just this via its '2023 The Future of Payments Survey — The Banking Industry's Perspective.' In this assessment, 110 banks globally were asked what they were seeing and doing in terms of new financial technology development and deployment.

Instant and Continuous Payments

Citi's survey asked the respondents which innovation capabilities they were focused on, proving to be one of the most revealing findings. By a large margin, their focus was on instant payments and 24/7 payments. Some 65% of respondents were either already using instant payment technology at scale or were gradually implementing it. And 51% were similarly focused on 24/7 payments.

> "The impact of technology that I see in the payments business is profound."

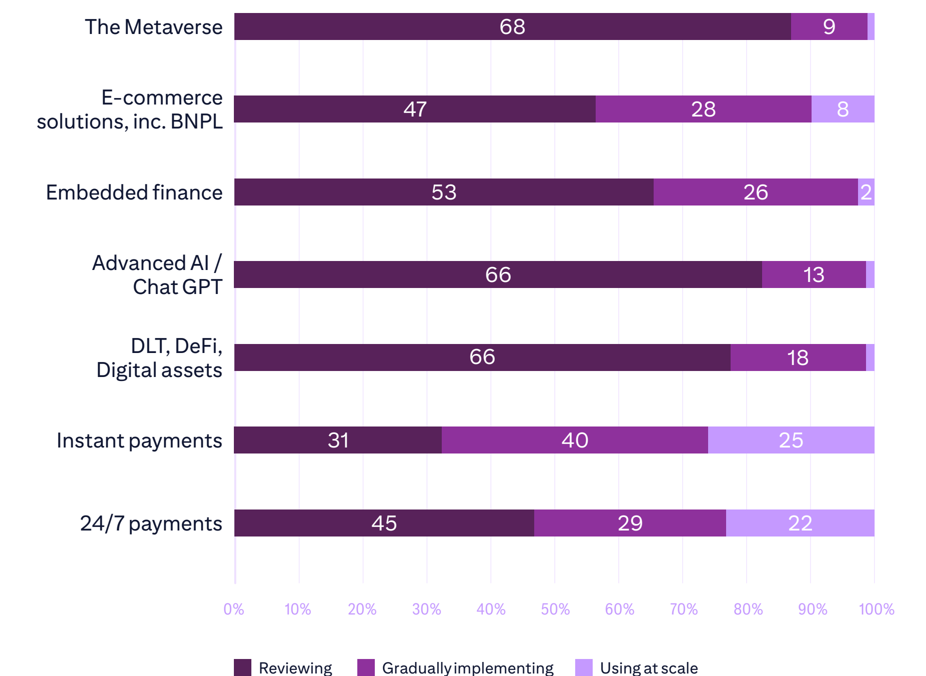
"The impact of technology that I see in the payments business is profound," says Aashish Mishra, FI Sales Banks & Asia North & Australia, Treasury and Trade Solutions at Citi. "The behavior of customers of our bank clients has changed across segments — be it retail consumers, small and medium enterprises or institutional. Their use of new payment modes (like instant payments and e-wallets) and fintechs has increased significantly because what they want is a digital experience, lower costs, speed and efficiency."

Drilling down further, the survey asked banks which specific areas of payments they were seeking technology solutions for and which specific technologies they were looking at investing in.

The results show a fairly even split between solutions focused on corporate and retail clients, and a two-thirds to one-third split between solutions focused on cross-border payments and those looking at domestic payments. In terms of specific technologies, a majority of respondents (83) chose APIs as their top focus. Some 78 (76%) describe themselves as either maturing or beginning their API journey, showing that this continues to be a priority area.

"In the short term, API is a technology that is seen by banks as the easiest way to digitize their payments offering and improve client experience, more than AI and more than data," says Mishra. "API is where the industry is focusing. Given the scale that the industry needs, and the globality of APIs, their architecture makes sense because they are customizable, bespoke and a mature technology."

It is not just payments, however. Over one quarter of respondents are actively working on both embedded finance solutions and e-commerce capabilities, such as technology that supports 'buy now pay later' services. Other technologies that may have garnered more public attention, such as advanced AI, the Metaverse, digital assets and distributed ledger technology, are being less widely implemented, with the majority of survey respondents still in the reviewing stage.

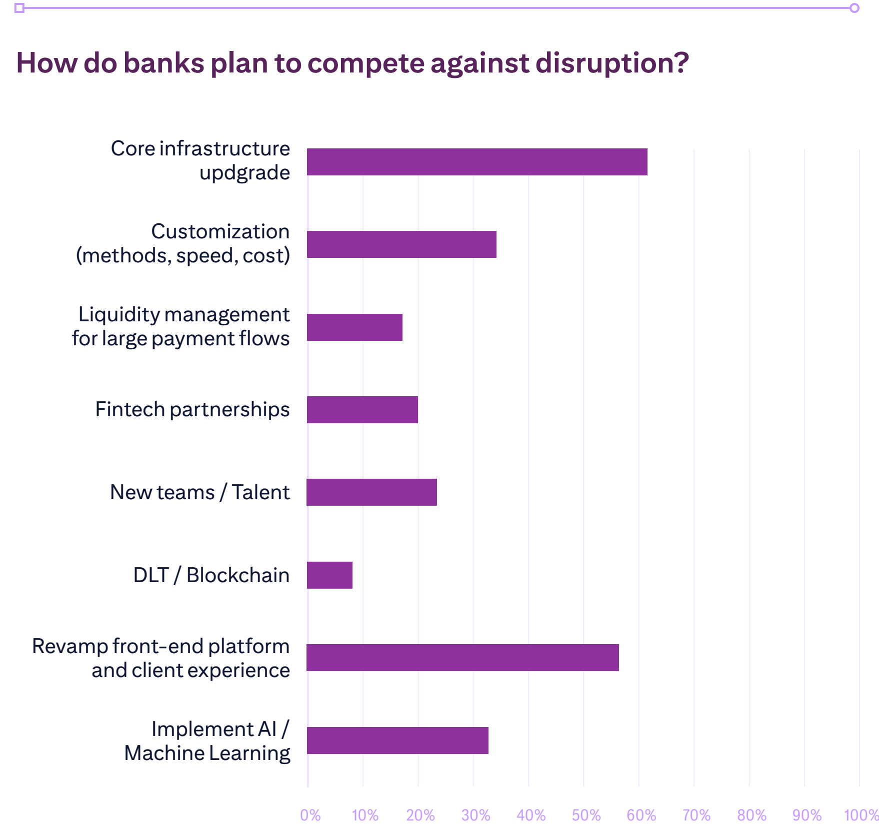


Fintech Disruption

Local and regional banks are well aware of the disruption that new financial technologies can cause their client relationships. They know that they need to respond to this threat by investing in their own systems or partnering with external providers offering the latest capabilities.

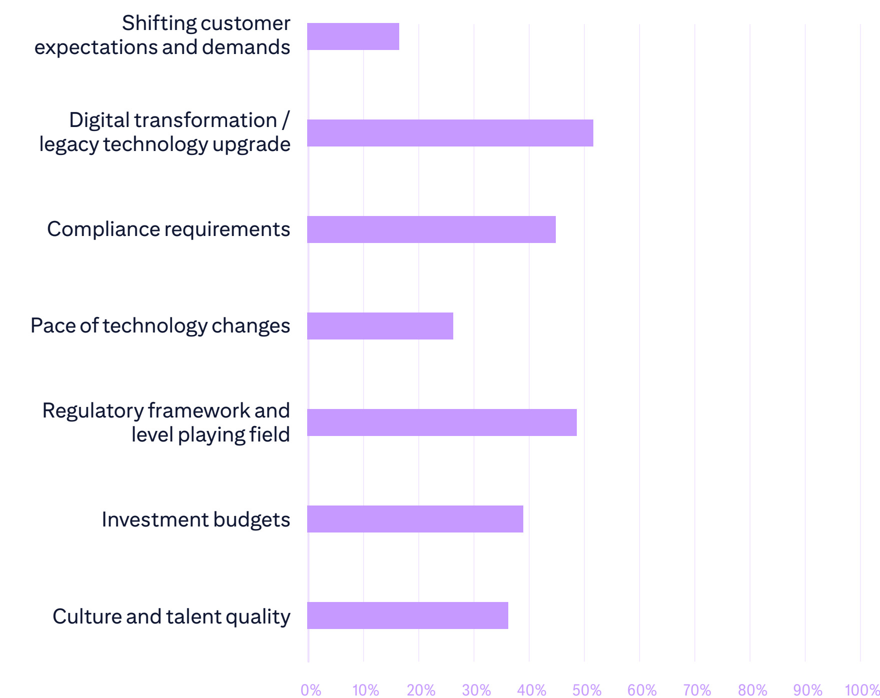
Respondents are coming to the threat of disruption from a position of relative strength — only 10% said they had lost over 10% of their market share to disruptors. However, many do not expect this situation to continue. Over the next five to ten years, 58% of respondents indicated that they expect to lose more than 10% of their market share, with 27% expecting to lose more than 20%. As a result, these banks are considering numerous ways to compete against the disruptors, with over 60% looking at core infrastructure upgrades and over 50% looking at revamping their front-end client experience. Most respondents are looking at a range of different strategies.

How do banks plan to compete against disruption?



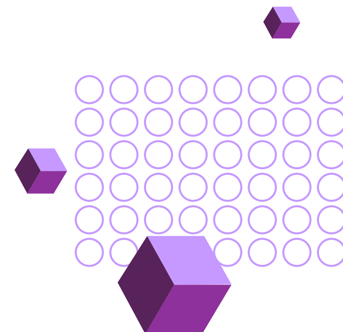
Source: Citi: 2023 The Future of Payments Survey — The Banking Industry's Perspective

What are the challenges to execute on these strategies?



Source: Citi: 2023 The Future of Payments Survey — The Banking Industry's Perspective

So what can banks expect to see in the future interplay with fintech companies? Will there be more competition at the product and at the client level? "I don't see this as competition. It is co-opetition — a mix of competition and co-operation," says Mishra. "There are a lot of joint ventures and partnerships that are happening between banks and fintechs. We see a lot of collaboration happening, where they leverage each other's strengths to deliver innovative solutions."



Regulatory Accommodation

Financial regulators across all the major markets in Asia generally have a positive view of fintech and are likely to continue to be accommodating to new developments and innovations. But the regulators only control their domestic markets, where a lot of their current innovation focus is centered. Meanwhile, innovation in cross-border payments and its regulatory aspects are more complex.

Many economies in Asia have restrictions on foreign currency movements in and out of their countries. There are also KYC and AML hurdles that need to be crossed in terms of identifying the provenance of the money. Cross-border payments have always been allowed but — depending on the country — only through certain designated routes. These routes are opening up. For example, some countries are allowing cross-border payments via instant payments, but with certain predefined value thresholds.

A number of bilateral exercises are also being undertaken for instant and 24/7 cross-border payments, for instance between Singapore and Malaysia[1], and Singapore and India[2]. This means that over the medium term, banks can expect technology to be rolled out that will allow them to use these routes.

"We see active work across markets in APAC to enable faster and easier cross-border payments," says Mishra. "So if you take a three to five years view, we will start seeing some of these exercises deployed more and more into real life applications."

Banks Focus Areas

Banks in the Asia are making strategic choices on transforming client experience, upgrading legacy technology and innovating in order to compete. They are also focused on new business opportunities presented by e-commerce, embedded finance and pen banking, among other areas.

"Citi is closely engaged with in providing its bank clients with the right solutions as they look to transform their payments businesses," says Mishra. "These include digitalization of their cross-border payments, enabling 'always-on' 24/7 commerce and delivering a superior end-client experience."

> "Banks in the region are making strategic choices on transforming client experience, upgrading legacy technology and innovating in order to compete."

CHINA'S VITALITY UNDIMMED BY CHALLENGES

China has endured pandemic lockdowns and geopolitical tensions, but treasurers find its opportunities as potent as ever. Supply chain shifts offer corporates resilience, but they don't dent China's essential role.

China has emerged from some of the most vigorous Covid-19 lockdown restrictions with its economy and potential intact. While treasurers at multinationals in China have been tested by three challenging years of pandemic, geopolitical tension and changing regulation, they now find a navigable business environment with considerable opportunity.

Supply Chain Realities

It is common to hear that supply chains have shifted away from mainland China, pushed by geopolitical uncertainty, the pandemic and relatively low labor costs elsewhere.

The reality, though, is that business has followed more of a 'China-plus-one' model, increasing alternative capacity rather than exiting the country. Only 19% of respondents to a survey by the American Chamber of Commerce in Shanghai[1] of over 300 companies in 2022 said they were decreasing their investment in China. And 30% said they were increasing investment. Only 17% of respondents[2] said they were considering moving their operations or footprint out of China in the next three years.

"There is a lot of talk about manufacturing businesses shifting their investment to set up supply chains in other countries," says Howard Yang, China Treasury and Trade Solutions & Corporate, Commercial & Public Sector Head, Citi. "But it's not that easy."

Closing operations in China and re-establishing them in Vietnam, for example, requires years of effort. It would not just be a question of opening a new factory but reorienting every part of an intricate supply chain. Through decades of development, Chinese manufacturers have built technical ability and skilled labor in industries such as automotive, chemicals and machinery. "The scale and scope of China's supply chain to international buyers is big. It would be difficult to replace overnight," says Yang.

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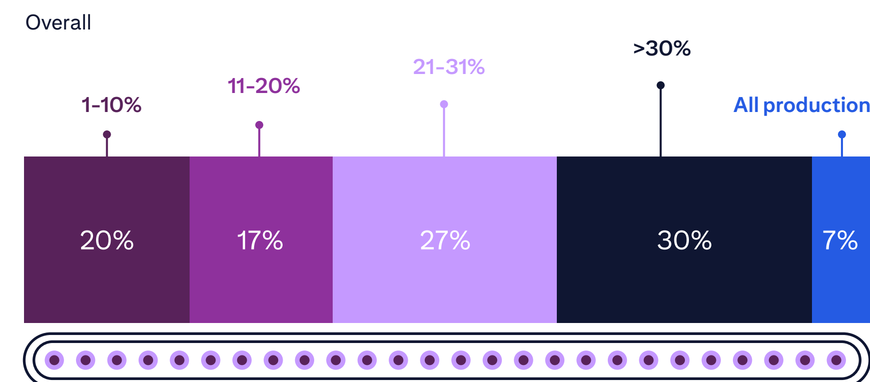
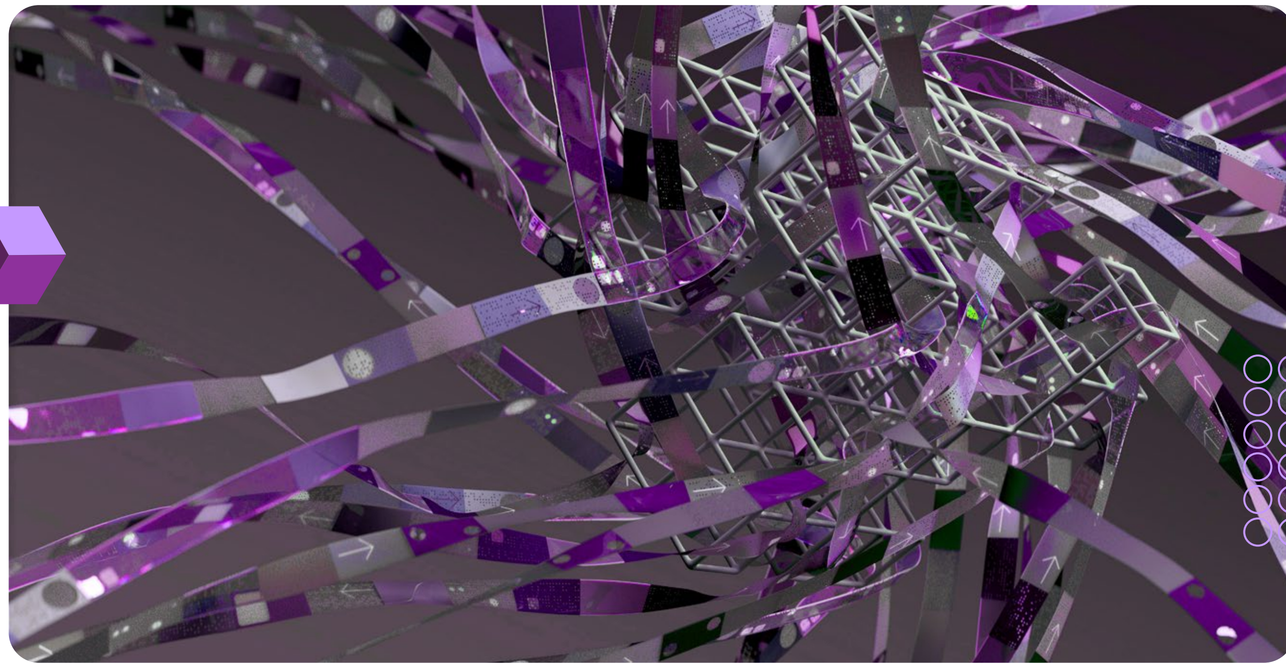


"Even though companies might make an investment in a new country, they do it gradually. It's not about shutting down a business in China and reinvesting the money elsewhere. It is about new investment in other countries with know-how, rebuilding R&D [research and development] and creating entire ecosystems, from logistics and services to backyard support."

In China, for China

Additionally, the China opportunity is not just about the creation of goods sold outside the country. "Most multinationals still take an 'in China, for China' approach," adds Yang, referring to a growing practice of making products and components for the domestic market rather than purely for overseas sale.



This approach often involves tilting investment towards research and development on the mainland. It avoids movement or export restrictions by focusing on China's domestic demand. Citi anticipates that this will be a key theme in the years ahead.

Well-Placed Pilots

Treasurers in China face unavoidable challenges. Currency movements are restricted, and the slow but steady flow of liberalization results in an always-changing regulatory environment. Treasurers must stay abreast of pilot schemes and initiatives, as opportunities will arise from them.

A good example, and a signpost to the future of business in China, is a pilot trade facilitation simplification scheme, introduced in 2019. Citi is the first foreign bank to be approved by China's State Administration of Foreign Exchange (SAFE) to implement this scheme. The pilot streamlines the supporting document review process for qualified clients when they are settling cross-border trade transactions.

The idea is to alleviate the heavy burden of the supporting documents normally required by banks to prove the legitimacy of a customer's trade background. The pilot scheme uses the bank's existing KYC, KYB (know your customer, know your business) and due diligence procedures. factoring these into the verification process reduces the burden considerably. For Citi, whose due diligence processes are considered impeccable in China, the result is a reduction in the need for clients to provide supporting documents.

China is a digitally adept nation, which could adopt this pilot and other simplification ideas nationwide. But regulation moves at its own pace. Good advice is essential.

"We maintain a good relationship with the regulator, and I can see that on cross-border payments, FX and capital-related things they are thinking about, they have an open mind to our suggestions," says Yang.

"But they can only move gradually because it's a very big market. They are very careful in managing change." Citi was only able to achieve its role on the pilot project because of the regulator's confidence in the quality and rigor of the algorithm Citi uses to identify qualifying customers and transactions.

Navigating Cross-border Pooling

The interim steps that accompany liberalization will also need to be carefully managed. Cross-border pooling, which links onshore and offshore facilities, is in a state of flux, just as it is becoming increasingly popular among multinationals.

"We have at least ten versions of the domestic pool and nine versions of cross-border pooling," Yang explains. "Some are driven by People's Bank of China (PBOC), some by SAFE, and some are specific only to a free-trade zone.

"For a multinational company to figure out which version of the program best fits their requirements, it is very important to have an experienced banking partner to help design their cross-border liquidity structures."

> "China is a digitally adept nation. But regulation moves at its own pace."

This issue has come to the fore because treasurers at multinationals in China have been looking to de-risk, reflecting moderating growth and geopolitical uncertainty. With that has come a preference to repatriate dividend payments to their home country or regional headquarters, particularly as rate hikes in the US and elsewhere have prompted multinationals to send earnings home to pay down debt.

> "In 2020 I found about 200RMB in my wallet. Two or three years later, it was still there. I never had a chance to use it."

However, there are other options open to them. Aside from cross-border pooling structures, multinationals can consider raising local funding in Hong Kong. Or, in some industries, they can set up a leasing company while selling down assets to optimize their balance sheet. In a restricted and regulated market, innovation will be increasingly essential in working out alternatives to repatriation.

China's Cashless Future

On the consumer side, China illustrates the potential for a cashless world. "China is almost a cashless country now," says Yang. "In 2020, I found about 200 RMB in my wallet. Two or three years later, it was still there. I never had a chance to use it."

In 2022, 911 million[3] people were using mobile wallets in China, dominated by Alipay and WeChat. The country's mobile payment penetration rate stands at 95.1%.[4]

The majority are comfortable with digital innovation — they don't object to data harvesting by mobile banking technologies, and they have been willing to leapfrog other financial norms like credit cards to a digital, mobile-based system of financial services.

Meanwhile, corporates are still more conservative, even though the pandemic did force many to adopt digital methods for uploading documents and processing transactions.

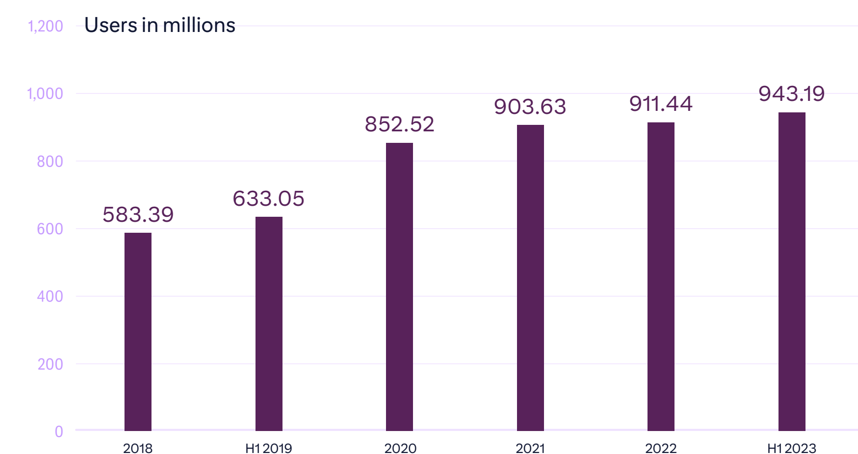
An ESG Future

Finally, a trend that will only intensify is the role of ESG principles in cash and trade. China is seeking to implement green finance from the top down, with government and regulators setting the tone through policy, guidance and regulation.[5] This effort then cascades down through the economy, including into the supply chain arrangements of multinationals.

Last year, Citi launched a sustainable supply chain finance program, embedding ESG factors into the product so that customers can establish vendors' ESG credentials. The customer can define their criteria to, establish which suppliers meet their grade, and provide cheaper funding accordingly. This creates a win-win situation, raising the ESG level through the anchor buyer's supply chain ESG, while motivating the supplier to improve their own sustainability. Green deposits are also likely to become part of the corporate landscape.

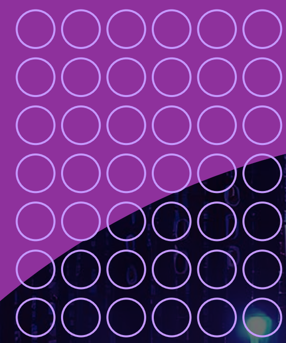
For the treasurer looking to the future, China remains the second-largest economy in the world, growing at 5.6%[6] in 2023, and providing a source of extraordinary domestic demand. It is still home to the most sophisticated supply chain environment in the market, with a clear-sighted government whose direction of travel, if not its pace, is clear. The challenges of the pandemic have not put an end to these characteristics.

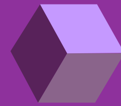
Growth in mobile payment users in China



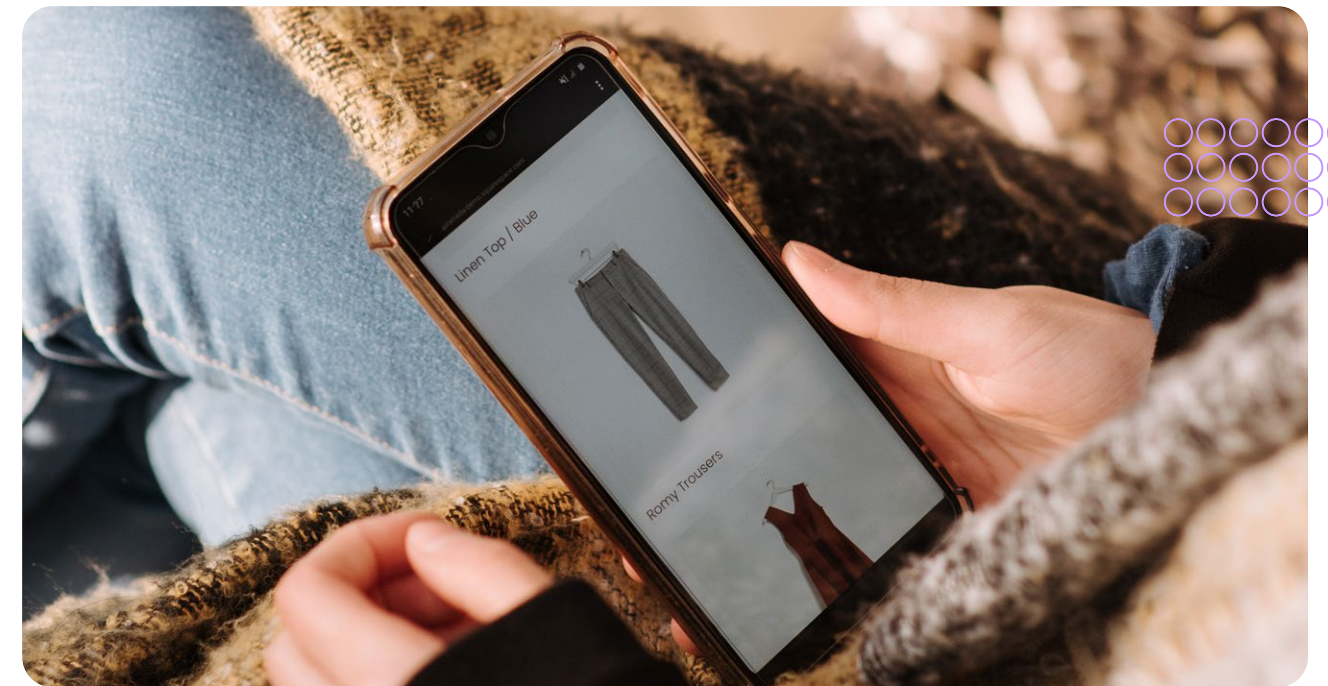
Source: Statista 2023

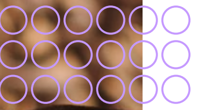
The payments space in Asia has seen deep disruption over the past five years and it's set to continue in the coming months and years.





MORE DISRUPTION TO COME FOR ASIAN PAYMENTS





The last five years has seen more disruption in the corporate institutional payments space than in the previous 20 years that Sanjeev Jain, Asia North & Australia Payments & Hong Kong & Client Experience Transformation, Treasury and Trade Solutions at Citi, has been a banker.

"Payment volumes have exploded, values have gone down significantly because commerce is being done differently," says Jain. "The traditional wholesaler to retailer to end-customer relationship has been disintermediated and continues to be disintermediated."

The rise of e-commerce may not be a new phenomenon. But when Covid-19 hit, online provided an essential alternative to physical retail businesses as countries locked down in a bid to suppress the spread of the virus. Citi now expects one-third of all global economic activity to take place through digital platforms by 2025.[1] This means payments will remain a core strategic focus for companies in the months and years ahead.

Fintech payment companies will continue to benefit from this fundamental shift. Providing fast and reliable mechanisms for business to hook up with their customers, real-time digital payments put the user at the heart of the experience.

Managing Divergence

While this is undoubtedly positive for treasurers, they will also face negative consequences. Many Asian countries (notably those that aren't members of the Organisation for Economic Co-operation and Development) have skipped traditional payment infrastructure developments, instead adopting cutting-edge technology to support new economic and trade flows. Countries like China, Indonesia, Vietnam and India are all finding ways to actively replace cash through digital wallets, QR codes, real-time payments or instant payment schemes at a pace that has been a surprise to many. But this is leading to a multiplicity of platforms that treasurers now have to manage.

"There's little standardization and consistency across the globe," says Jain. "For example, domestic payment schemes or alternate payments like digital wallets in Indonesia operate very differently to ones in China as they do to ones in India. It's challenging for everyone, particularly companies operating in multiple countries or expanding globally."

To underline this, Citi surveyed 100 of its financial institution clients on the stresses this disruption has placed on them. In its 2023 "Future of Payments" report, 27% said they expect to cede more than 20% of their payments market share to fintechs and disruptor companies within five to ten years. And 62% expect to lose between 5% and 20% in that time.

> "Payment volumes have exploded, values have gone down significantly because commerce is being done differently."

New Initiatives

Despite their worries, regulators and central banks in the region are keen to support the rise of faster, more seamless payments—both domestic and cross-border. At the end of August 2023, for example, Vietnam officially joined the Regional Payment Connectivity initiative,[2] part of an ASEAN-wide plan to boost economic activity with the development of faster, cheaper

and more transparent cross-border payments. It is now one of six countries, including Singapore, to be part of the initiative.

India is in pursuit of similar goals and somewhat of a leader in the region. At a recent event co-hosted by the Reserve Bank of India (RBI) and the Bank of International Settlements, the RBI governor emphasised his commitment to expanding the central bank's digital currency (CBDC) pilot scheme across the country. "I strongly believe cross-border payments can be made more efficient through adoption of CBDCs, and this is an area which should receive close attention," he said.[3]

In fact, India is one of the few countries that has launched a CBDC in both wholesale and retail segments. Others, including Hong Kong and Japan are still at the concept stage of development but are intent on launching their own CBDCs soon.

More Compliance Coming

The rise of e-commerce and the digital payment transformation has triggered a subsequent jump in fraudulent activity, money laundering and terrorist financing. E-commerce sites in the US and Asia-Pacific lost an estimated $700 million in fraudulent sales to criminals in Southeast Asia during the fourth quarter of 2022, according to the Merchant Risk Council.[4]

Regulators are likely to consider tightening up security, compliance and data-privacy laws to tackle this, all of which will impact treasury teams and ask questions of traditional banks and fintech companies in terms of how they monitor activity running through their pipelines.

The Financial Services Agency of Japan, for example, recently expressed concern that financial institutions were falling behind on this monitoring[5] and encouraged, among other suggestions, a system of filtering and collating transactions by sanctioned persons. All of this implies increased compliance obligations on the part of corporate treasuries to support anti-fraud and money laundering measures.

Better User Experience

But while criminal prevention will certainly continue on the side-lines, the focus of many institutional and retail payment providers will be on improving user experience, as well as increasing the rails that allow for more cross-border, instant and 24/7 payments. This means more optionality at the front end but more integration at the back end.

As an example, Citi has launched Spring by Citi in four of its more mature markets in Asia, with a view to expanding to other markets in Southeast Asia in 2024.

Spring by Citi is a sophisticated acquiring solution for online merchants that allows them to present multiple payment options to the customer at the point of sale. As e-commerce becomes more international, the range of payment options required has expanded in step. Citi handles the integration and ensures the customer experience is seamless, while, at the back end, the reconciliation and reporting is there to support corporate treasury operations.

Delivering a payments solution that meets the user experience standards required by an e-commerce company shows the recent payments paradigm shift. In particular, product development now needs more than just buy-in from the treasury department; inputs and sign off need to come from other business divisions as well.

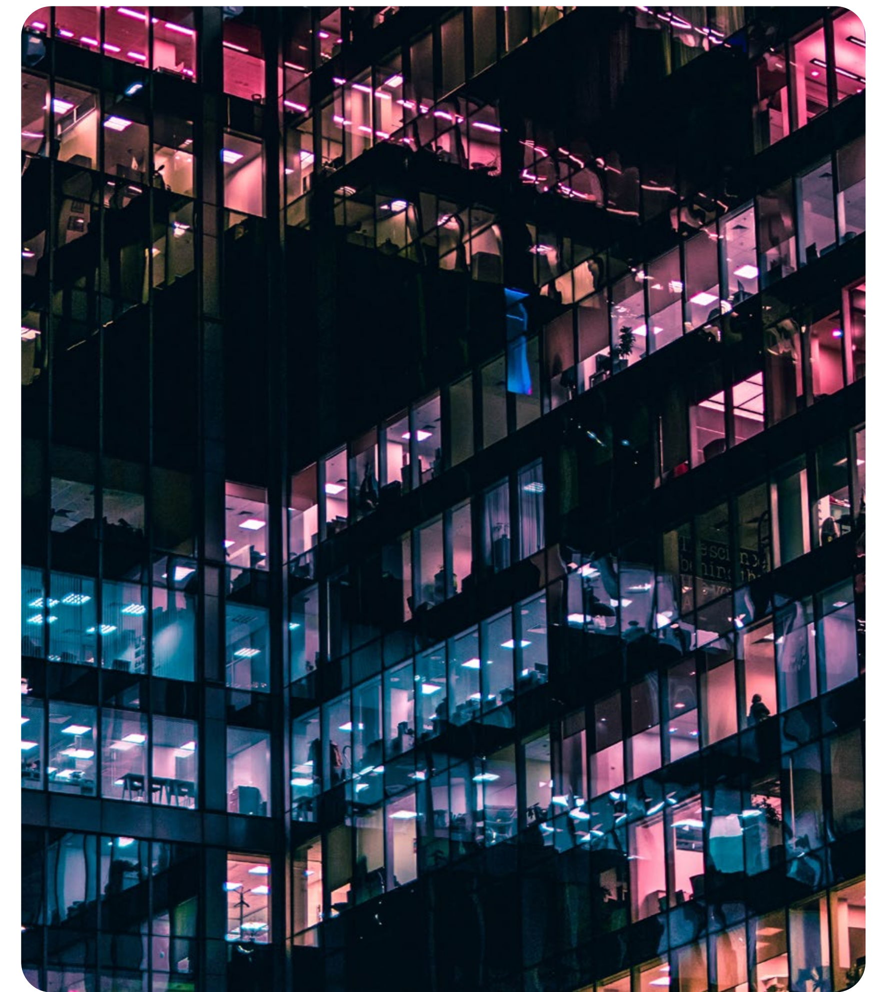
This deeper involvement of payments with the business is emblematic of how the role of the treasury team is changing. "We are engaging our clients at the design and build stage of our products and services," says Jain. "Particularly anything that touches upon real-time payments. We want to know how the client will use it and how the customer will consume it."

> "We are engaging our clients at the design and build stage of our products and services."

LIQUIDITY CONCERNS RISING AMONG ASIAN CORPORATES

It is not just higher interest rates that are causing concerns for treasurers in Asia managing their liquidity. Demand for capex is increasing, while visibility on revenues is more clouded than before.

The outlook for liquidity in Asia is nuanced. It's not just a function of high inflation[1] leading to elevated interest rates and stricter bank lending policies. Liquidity is also driven by fundamental shifts in the business climate and new business models emerging, both of which are affecting the way that companies are managing their liquidity. The liquidity outlook for companies in South and Southeast Asia is encouraging, with many companies reporting strong growth and positive cash flows. But in other countries, liquidity management has been and is likely to continue to be a priority for treasurers to tackle for months to come.



Interest Rates Peaking

Liquidity is getting tighter as the interest rate cycle is peaking,[2] not just from a G3 perspective but also from a local currency perspective. Indeed, interest rates across the region are at levels not seen for over a decade, and in such a high-rate environment, liquidity gets tighter. But it is not just lending rates affecting liquidity. There are other factors at work as well.

> "It is not just lending rates affecting liquidity. There are other factors at work as well."

Geopolitics Forcing Capex

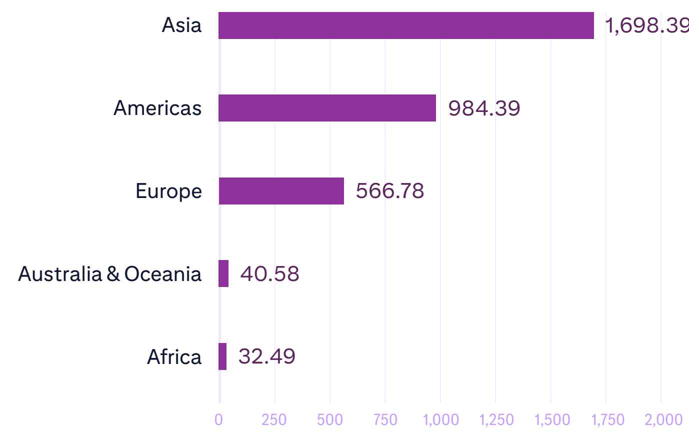
In some countries, companies are reporting that exports are slowing, cash realization is slowing and growth is lukewarm. But cash consumption has not gone down because many companies are engaging in capex activity. Specifically, they are seeking to diversify their supply chains to create a 'China-plus-one' manufacturing solution. This means their cash outflows are predictable but the cash inflows are getting delayed, which is leading to tightness in the cash conversion cycle.

E-Commerce Creates Cash Flow Uncertainty

At the same time, many companies are digitalizing their business models as digital sales and e-commerce are growing rapidly. Indeed, 55% of global e-commerce happens in Asia.[3] While this is generally positive and will likely continue through the rest of the year, it does have the unintended consequence of generating even more cash flow uncertainty. It is difficult for treasurers to predict what will get sold through e-commerce channels and how fast or how slow. On the other hand, supply chains are still predictable in terms of cash outflow. It is a new and disruptive business model that is not tried and tested over business cycles.

Total retail e-commerce revenue worldwide in 2022, by region

(in billion U.S. dollars)



Source: Statista 2023

"High interest rates, geopolitical rumblings and digital disruption are creating challenges for treasurers when it comes to managing their liquidity," says Sandip Patil, Asia North & Australia, Liquidity Management Services & Hong Kong, Treasury and Trade Solutions at Citi. "The cost of not doing it right is very expensive in this environment, given the high rates. But there are a number of solutions that our clients are relying on. Firstly, there are their own Treasury policies and processes — the inside view. The second is to look outside at the best practices in the market."

Lower Rates Scenario

If the interest cycle has peaked and rates start to go down, the economic incentives for treasurers could change over the medium term. But the incentive will always be there to optimize cash. Because any cash that can be saved from a structural perspective can go to retire debt and capital. This interplay between the cost of debt and the interest rates offered on deposits will be a key driver for treasury operations into the near term.

Managing Liquidity in China

Given its size, China is an essential market for many companies in Asia. The regulations that govern liquidity in the country are evolving but companies that remain adaptable will be able to work through the rules. As a result, many companies are looking to set up cross-border structures for liquidity management to have more flexibility to take cash in and out via liquidity pools. Regulators are looking favorably on these structures, especially as they are not just vehicles for taking money out of the country, but also for bringing cash and investment in.

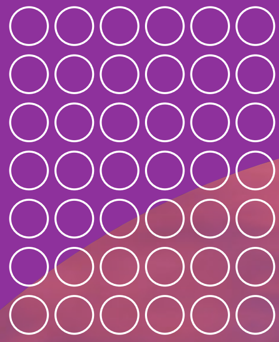
> "The cost of not doing it right is very expensive in this environment."

"This is now a cost of capital game and not really an interest rate game or working capital game," says Patil. "Once a client becomes efficient, they don't want to become inefficient again, just because the rate cycle has turned."

Benchmarking as a Solution

Every treasurer needs to be able to assess a number of factors, not just on an absolute basis but also on a comparative basis. This includes KPIs on the amount of liquidity the company holds, their lead lag effect and their cash conversion capital cycle. But if treasurers do not compare these KPIs against their peers, they cannot tell if the KPIs are good or bad. "This is an area where we will continue to help our clients in the region by benchmarking them against their peers and allowing them to consistently improve their operations and optimize their cash visibility," says Patil.

Citi uses data gathered from over 1,000 global clients to show what best practice looks like. Every company has a unique working capital footprint comprising their cash conversion cycle on the receivable side and their procure to pay cycle on the payable side. But if a company can see that its cash conversion cycle takes ten days longer than its industry peers, that is valuable business information that could lead to action elsewhere in the company. These kinds of exercises will increase in importance, along with treasurers' growing presence at the front line of business in Asia.



INDIA
THE FRONTIER OF PAYMENTS INNOVATION

A comprehensive and open digital public-good infrastructure serves as the backbone for one of the world's most interesting markets for new payment ideas.

India's Unified Payments Interface (UPI), the instant payment system built and backed by the Indian state, is the foundation upon which one of the world's most vibrant digital payments industries has been built. Innovation continues here at pace, creating a compelling opportunity for providers and customers.

The UPI is open architecture, fully interoperable and free to access. UPI was designed to enable interoperability between money custodians, payment rails and front-end payment applications. This means barriers to entry are low, encouraging not only banks but also fintechs to participate in the development of payment architecture.

The result is the most active digital payments market in the world: the National Payments Corporation of India (NPCI) logs nine billion digital payment transactions a month through UPI,[1] and seeks to reach a billion a day.[2] It is also a market in a constant state of evolution.

> "The National Payments Corporation of India logs ten billion digital payment transactions a month through UPI."

UPI's evolution brings product development

As UPI has grown from its payment roots, new features have enabled different digital use cases. For example, UPI Autopay[3] allows telecom companies to collect subscription flows without a customer having to initiate a payment. The Rupay credit card[4] has been embedded on to the platform, which is likely to drive credit card adoption from its current rather muted level of 85-90 million cards[5] for 1.4 billion people. And the UPI Lite model allows access to UPI for those with feature phones, rather than the more technically advanced smartphones, broadening financial inclusion.

"There has been a constant evolution in UPI from being a payment scheme for P2P payments, into a growing payment channel for business payments," says Mridula Iyer, Head of Treasury and Trade Solutions for South Asia at Citi. "Solutions like UPI Auto Pay and the linkage of Rupay to UPI would lead to new use cases for businesses.

"On the back of payment infrastructure like UPI, business models are changing rapidly because digital infrastructure is encouraging corporate clients to think about digitizing traditional forms of business."

This is visible in companies going direct to the consumer, disintermediating retailers and distributors. Companies are also launching their own marketplaces for their products, taking advantage of easier payment and collection services.

> "On the back of payment infrastructure like UPI, business models are changing rapidly."

> "The specific aims of Vision 2025 include trebling the number of digital payment transactions in four years."

Cross-border – the future of innovation

Looking to the future, cross-border will be an obvious area for innovation. India's UPI and Singapore's PayNow have been connected[6] in a pilot for instant settlements, but there is enormous scope to do more.

NPCI International Payments Limited (NIPL) is building a large acceptance network for RuPay and UPI which will help Indian travelers pay with these payment channels in foreign destinations. NIPL is also building a technology platform to onboard global remittance institutions, enabling them to connect directly with the UPI platform in India for instant settlement of inward remittances.

It is likely that India's Central Bank Digital Currency (CBDC), the Digital Rupee, currently in a pilot testing stage,[7] will find its greatest practical utility in cross-border ecosystems, because this market is filled with inefficiency: there are capital controls, India's is not a fully convertible currency, transfers are inefficient and settlement is slow.

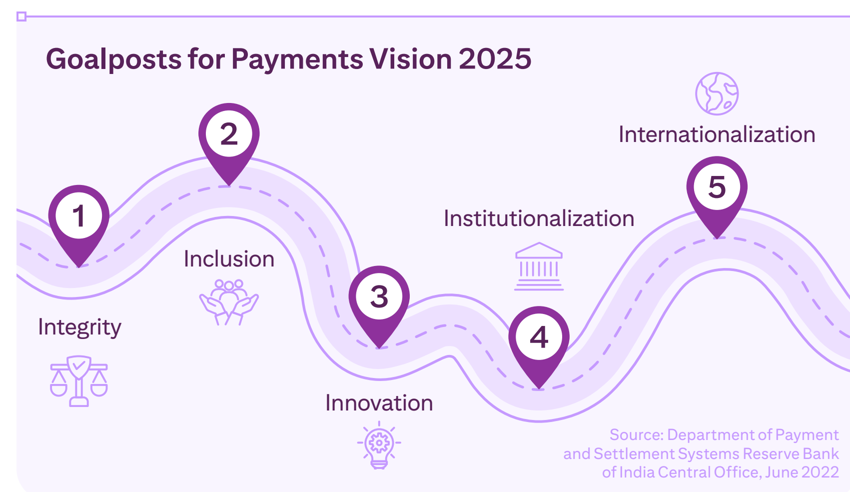
For this to happen, there will need to be a more standardized framework globally for the settlement of CBDC transactions. But the Reserve Bank of India's Payments Vision 2025,[8] an important roadmap to the future, has a clearly stated priority to bring efficiencies in payment processing and settlement to CBDCs both domestically and cross-border. So it would appear to be only a question of time.

Domestic stitching of solutions

Domestically, an opportunity for banks such as Citi can be found in stitching together the many payment solutions in the country in a way that is more efficient for customers by bringing multiple APIs and payment systems together. This could help customers receive instantaneous refunds on returned orders, or digitize cash on delivery orders via QR based payments for e-commerce companies. It could involve combining multiple technologies to tip a delivery boy bringing food to the customer's door, or assisting non-banking financial companies (NBFCs) on instant account validation and loan disbursal.

"We are co-creating new use cases with our clients to help them collect and pay in the most efficient manner by leveraging payment schemes in the country to enable our clients to provide better services to their customers, suppliers and vendors," says Iyer.

The Reserve Bank of India will continue its efforts to reduce the amount of cash in the Indian economy, which still accounts for roughly 12.5% of GDP.[9] The specific aims of Vision 2025[10] include trebling the number of digital payment transactions in four years, driving annualized growth of 50% in UPI and 20% in IMPS/NEFT (instant payment mechanisms), and reducing cash in circulation.



Two initiatives to watch

01.

The Open Credit Enablement Network[11] (OECN)

is a decentralized repository through which banks, non-banks and fintechs can connect and share borrower-related information, with their consent, to make better lending decisions. OCEN has codified the flow of credit between borrowers, lenders, and credit distributors under a common set of standards. This speaks to an increasing trend: the linking of credit mechanisms to payment mechanisms, which will make it easier for lending decisions to be made promptly using the same digital channels through which payments are directed today.

02.

The Open Network for Digital Commerce[12] (ONDC)

is a government-led initiative aimed at promoting open networks for all aspects of exchange of goods and services over digital or electronic networks to achieve interoperability and unbundling of services. ONDC is a communication protocol that allows buyer network participants and seller network participants to interact with each other.

Planned as a pan-Indian initiative, it is currently being piloted in over 270 cities in India, and aims to increase India's e-commerce penetration to 25% in the next five years from the current level of 7.8% by allowing small retailers and storekeepers access to vastly improved markets through a low-fee and open platform.

"ONDC will be the next big frontier for change in this country," says Iyer. "It is revolutionizing e-commerce by encouraging competition and innovation. I don't think an experiment like this has been done anywhere in the world."

These two platforms illustrate trends that will continue to define payments and treasury trends in India in the years ahead: expanding payments infrastructure into lending, and marketplaces which cut out intermediaries and empower e-commerce suppliers. They are examples of the innovation afforded by India's great investment in digital infrastructure. India is leading the way in the development and evolution of Open Digital Ecosystems (ODEs), fostering innovation and growth at an unprecedented pace.

THE FUTURE OF TRADE IN ASIA IS EVOLVING

New business models, political disruption and climate concerns are all playing a part in charting a new course for trade in Asia. Here's how it's also influencing trade finance.

Shifting Macro Picture

In the wake of the global lockdowns, the reinvigoration of trade, capital and human mobility is a significant phenomenon. However, lingering geopolitical tensions continue to cast shadows on global trade dynamics. For corporate entities, comprehending these geopolitical ebbs and flows is paramount as they directly influence trade regulations, tariffs and market accessibilities. Tensions between China and the US, and Russia's invasion of Ukraine, are causing many countries — and the companies that operate within them — to focus on the need for more self-sufficiency.

Despite this backdrop, trade remains resilient. The latest analysis, conducted by the NYU Stern Center for the Future of Management,[1] measures the reach of globalization. The results indicate that the flow of trade, capital and information reached above pre-pandemic levels in 2021, and they now remain buoyant and very international. Global trade specifically picked up well, reaching 10% above pre-pandemic levels in mid-2022. The second half of the year was less buoyant, but trade volumes were stronger than worst-case scenarios expected during the advent of the Ukraine war.[2]

There are obviously still macro headwinds. Sustained inflation is taking its toll on economic activity. As of its October 2023 update, the International Monetary Fund predicts global growth will fall from an estimated 3.5% in 2022 to 3% in 2023 and 2.9% in 2024.[3] High inflation dampens consumer spending and elevated interest rates place a strain on corporate access to capital. Both are damaging to trade.

De-Risking Supply Chains

While the fear of deep international retrenchment recedes, there is plenty of evidence that de-risking of supply chains is happening at pace. The bottlenecks that Covid-19 generated within the supply chain remain fresh in corporates' memories. Developed markets, such as the US, Japan and South Korea, plus the larger economies in Europe all felt the effects of China's lockdown, revealing the extent of dependence on the country in strategic areas such as pharmaceuticals, electric vehicles, rare earth metals, raw materials, semiconductors and cloud technology.[4]

Policy leaders are looking at how to mitigate the threat of a similar emergency and accelerate ways to operate in a more unstable world. In some cases, such as in Japan, legislation has been introduced to encourage the repatriation of production in certain key sectors.

However, the full repatriation of supply chains is neither feasible nor necessary. But there are a host of more subtle and sustainable strategies being employed. These range from reshoring elements of the supply chain to near-shoring, friend-shoring and diversification, with policies such as the 'China-plus-one' approach.

"This is a shift that is truly global," remarks Sumanta Panigrahi, Asia North & Australia Trade & Working Capital Solutions, Treasury and Trade Solutions at Citi. "From a macro perspective, it is the shifting away from globally centralized manufacturing hubs to a much more dispersed manufacturing setup."

> De-risking of supply chains is happening at pace."

While imports of electronics, for example, to the US from China have declined, nations such as Vietnam, Malaysia and Taiwan have increased their share of production. It is not just US corporates slowly building new trade routes, South Korean companies, among others, are also adopting the same approach. This is a strategy that accepts the deep integration of China within the global value chain but hopes to maintain continuity in the event of a disruption.

Decentralized Functions

As supply chain resilience aligns with the macro shifts discussed above, large Asian conglomerates — such as in South Korea — are setting up plants in the markets where they sell their products, moving away from highly centralized production models. Decentralizing operations can serve as a buffer against geopolitical risks and lend itself to more predictable financial outcomes.

Treasury and finance departments are following the business. From upfront capital to traditional trade finance, setting up new operations requires a comprehensive suite of trade-linked bank products, alongside traditional cash management and risk management products to manage liquidity, market and regulatory risk.

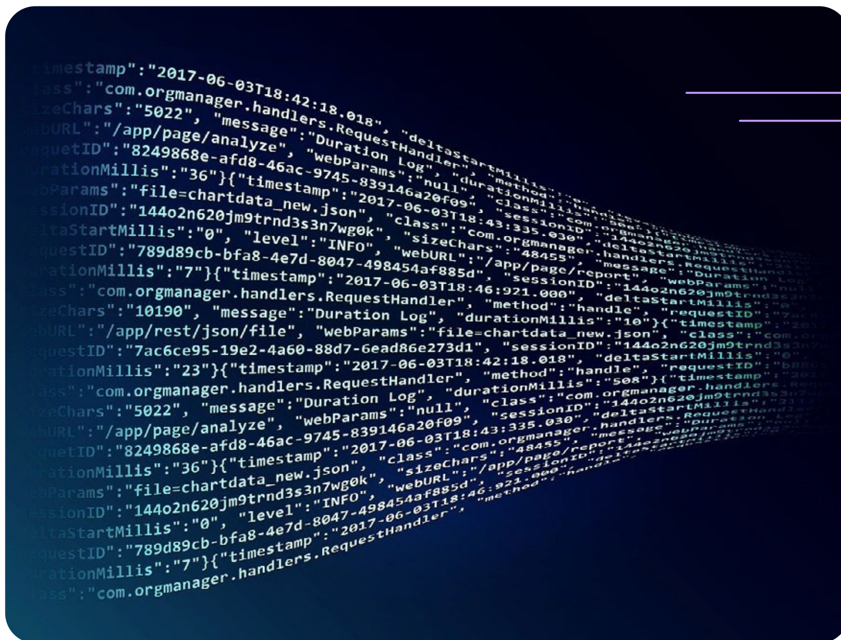
Normalizing Inventories

While Covid-19 was at its height, access to capital and efficient management of liquidity was critical. Building excess inventory and moving from a 'just in time' to a 'just in case' business model ensured continuity in the wake of supply chain disruptions. Now, as trade has normalized and lead times are reducing, that inventory is being wound down and capital is being unlocked.

Treasurers are re-focusing and asking their banks to provide solutions more aligned with longer-term objectives. However, the 'just in time' model is unlikely to come back in vogue anytime soon. Citi expects to still see buffers in inventory stocks as a means to mitigate the trade disruption recently experienced.

This, as Panigrahi observes, has manifested itself in multiple ways. For trade finance, it translates to a more balanced approach to inventory financing, potentially leading to sustainable financial arrangements.

> "'Just in time' model is unlikely to come back in vogue anytime soon."



Improved data analysis aligns well with the development of supply chain finance — a valuable open-account solution, but one that has up to now only been able to reach the first or, sometimes, second tier of a large company's supply chain. Banks including Citi are now using rich veins of payment and trade data to reach deeper into the supply chain, providing much needed liquidity to lower credit-rated, but nonetheless crucial, elements of the value chain.

Trade Digitalization

Other important developments that are emerging support the overall optimizations of treasury performance, in particular trade digitalization. To give an example, approximately 25% of Citi's pre-pandemic trade activity with clients was digital. That is now up to 80%, says Panigrahi.

Such shifts provide huge opportunities, giving corporates better control of their credit facilities, reduced fees, faster application processes, improved transparency and increased transaction volumes – all without the need for additional credit.

Eco-Conscious Trade: The Sustainable Shift

The pivot towards sustainability has now become a business imperative, underpinned by an evolving regulatory landscape and heightened consumer awareness.

A notable dimension of this shift is the growing consciousness among clients of their emissions within the value chain, including supplier operations. Suppliers are being nudged to adopt greener practices, reduce emissions and contribute to the overall objective of reducing the carbon footprint of business operations. In support of this, Citi remains fully committed to unlocking $1 trillion for sustainable finance by 2030, aligned with the UN Sustainable Development Goals (SDGs).

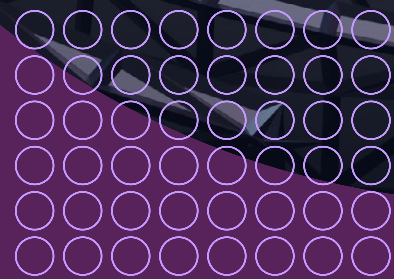
This sustainable shift is resonating with the financial backbone of trade. Modern financial institutions are designing products to incentivize sustainable practices among suppliers and corporates alike, with sustainable financing and sustainability-linked supply chain financing gaining traction. The International Chamber of Commerce (ICC) recently concluded the wave one pilot of its Sustainable Trade and Sustainable Trade Finance framework, a critical step in shaping the future of sustainable trade finance. Citi is playing an integral role in developing this new set of standards.

The framework attempts to assess the sustainability of trade transactions, incorporating environmental and social factors, to facilitate a transition towards reduced emissions and better societal outcomes. The ICC said it is now ready to go ahead with its wave two framework, and presented it at COP28 in December 2023.

This evolving landscape in Asia embodies a blend of challenges and opportunities for corporates. Those adapting to political and geographic challenges, and embracing new business models to suit, are the ones also asking all the right questions of their banks. Navigating these challenging times requires solutions both found within a responsive corporate culture and from institutions like Citi who are supporting finance leaders in the transition.

> "Suppliers are being nudged to adopt greener practices."

NEW PARAMETERS SURROUND OLD RISKS



Treasurers are continuing to focus on macro risks while spending more time finding ways to mitigate operational and business disruption risk.

The numerous families of risks that treasurers manage daily — from liquidity and market to macro, FX and credit — will continue to be the most critical challenges that they face in coming months. But while the risks themselves do not tend to change, the parameters that surround them are evolving at pace.

"Foreign exchange risk, hedging risk, interest rate risk, market risk or even regulatory risk in terms of cross-border mobility of capital – these are issues that are all changing very rapidly," says Sandip Patil, Asia North & Australia, Liquidity Management Services & Hong Kong, Treasury and Trade Solutions at Citi. "People are aware of these risks and we are helping them become more aware of what the possibilities are to mitigate these risks and how this is likely to evolve in the future."

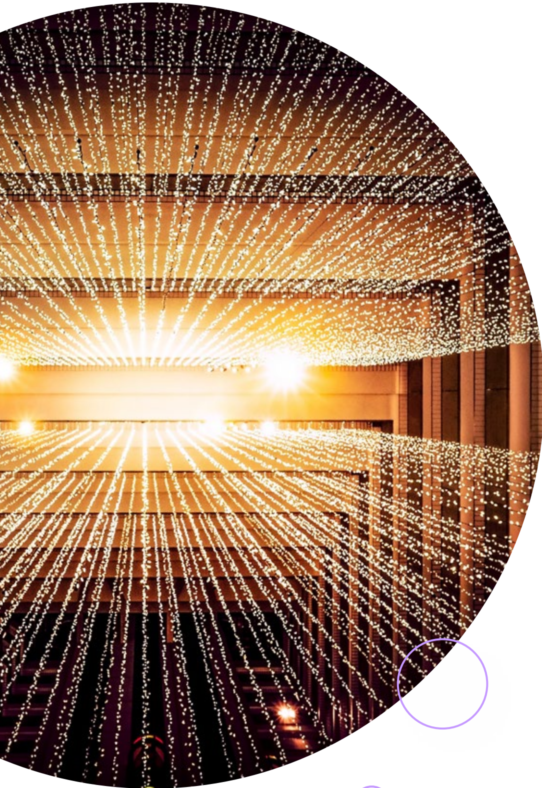
More Focus on Operational Risk

Treasurers are spending much more of their time focused on managing operational risks. Companies are increasingly reliant on digital processes for everything from manufacturing, distribution and supply chains to client experience, e-commerce and business modelling. Understanding the risks if those systems are not working is critical, as is the case for a cyber-attack, or data resiliency or integrity issues. "Technological risks are top of mind for our clients and customers simply because of the digital disruption they have experienced," says Patil.

Emerging Market Risk

The high interest rate environment means a high cost of capital. And this tends to be negative for companies operating in an emerging region such as Asia Pacific. "Given the macro environment, people are now starting to worry about emerging market risk, not just from a credit standpoint, but from a foreign exchange standpoint, from an interest rate risk standpoint and from other multiple dimensions," says Patil. "Emerging market risk is not just about credit or interest rates or sovereign ceilings, it also encompasses views on the riskiness of the operating environment in which companies do business."

> "Technological risks are top of mind."



Business Disruption Risk

Business disruption risk comes in many forms. At the short end, it could be denial of service attacks on digital platforms. In the medium term, it could be external supply chains being disrupted by shipping blockages. And in the long term, it could mean having to set up new manufacturing operations in new countries due to geopolitical sanctions.

Companies and their treasurers are looking closely at these risks. While these differ from sector to sector and company to company, the mitigations start with scenario planning and maximizing the visibility around those risks.

"Treasurers are asking insightful questions and even boards of directors are curious about how to mitigate business disruption risks," says Patil. "The main questions our clients are asking themselves at the moment are: 'Is our manufacturing concentrated in one country? Do we have backup facilities? Is our supply chain resilient? Is our supply chain shifting and are we shifting at the same pace?' The two lenses they are looking through are manufacturing and supply chains, and addressing their distribution strategies to mitigate against disruption."

> "Business disruption risk comes in many forms."

Increasing Visibility

Treasurers need as much visibility as possible across all their data when examining these various risks. To that end, Citi has launched a new platform, CitiDirect Commercial Banking,[1] specifically to address the needs of Citi Commercial Bank (CCB) clients. The platform provides Citi's clients with a consolidated view of their Citi banking relationship across cash, loans, trade, FX, servicing and onboarding.

The platform will help treasurers to manage their risks, giving access to the data-driven insights needed to inform decision making, and allow efficient management of day-to-day banking interactions with Citi, all from one place. Clients can also open accounts digitally and request new products and services.

The platform is already live in the US, with over two-thirds of Citi's US client base actively using the platform. CCB is currently piloting it across Hong Kong, India and Singapore.

> "Treasurers are asking insightful questions."

Hedging Climate Risk

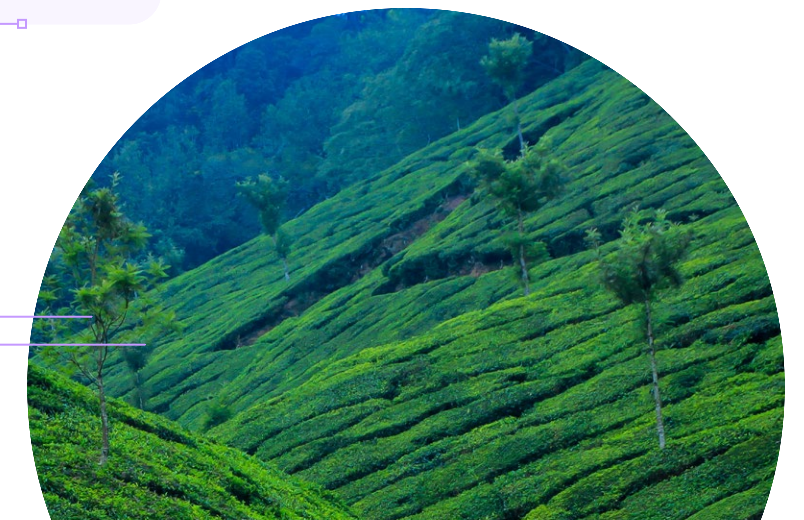
ETSs and VCMs

Climate risk is a global concern, from increasing prevalence of extreme heat to natural disasters and rising seas. Treasurers must consider the impact this will have on government policies, around issues such as carbon pricing and taxes. The European Union's Carbon Border Adjustment Mechanism (CBAM) was established in December 2022 and will create a financial penalty for companies that are large emitters. For treasurers, this is a risk that can increasingly be mitigated through the use of emissions trading schemes (ETSs) and voluntary carbon markets (VCMs).[2]

ETSs are mandatory mechanisms enforced by governments to offset carbon emissions. VCMs are discretionary but have gained significant traction in Asia over the past two years and are set to reach a value of $10 billion[3] by 2030. A number of new VCM exchanges have opened in Asia in recent years to facilitate the creation and trading of carbon credits, each equivalent to one tonne of carbon.

There are two exchanges in Singapore — ACX Singapore, established in October 2019, and Climate Impact X, established in May 2022. Other regional exchanges were set up in 2022 with the Federation of Thai Industries' FTIX platform opening in Thailand, Core Climate in Hong Kong and Bursa Carbon Exchange (BCX) in Malaysia. More exchanges are launching across the region. On October 11, 2023, the Tokyo Stock Exchange launched a new carbon credit market. In China, the Certified Emission Reduction (CCER) is preparing for relaunch.[4] Domestic VCMs are also currently under consideration in India and South Korea.[5]

Asia's stock of carbon offset projects is the most valuable in the world. Asian companies can take the lead in developing this market, both as a way to hedge their own activities, but also as a potential line of new business.



NAVIGATING ASIA'S CHANGING ESG ENVIRONMENT

Treasurers in Asia face a shifting world of environmental, social and governance (ESG) regulation and incentives. It brings both challenges and a potential funding opportunity.

There are more than 200 ESG-related regulations in place in Asia, a twofold increase since 2016.[1] Multinational treasurers in the region must keep abreast of regulations, which can be sharply divergent from country to country.

"The story is still evolving," says Sandip Patil, Asia North & Australia, Liquidity Management Services & Hong Kong, Treasury and Trade Solutions at Citi. "From disclosure rules to taxes, tariffs and incentive plans, policies and governance are just emerging in Asia."

The direction of travel, though, is clear. Firstly, the macroeconomic environment in Asia is firmly focused towards carbon neutrality, often pledged in long-term targets and blueprints made by Asian governments. For example:

- China has committed to a peak of carbon emissions by 2030 and carbon neutrality by 2060;
- Singapore's Green Plan 2030 is a nationwide movement to advance a national agenda on sustainable development, including carbon neutrality by mid-century;
- Vietnam, Thailand, Malaysia and Japan have all committed to carbon neutrality by 2050, with various emission reduction milestones targeted along the way.[2]

Divergent Regulation

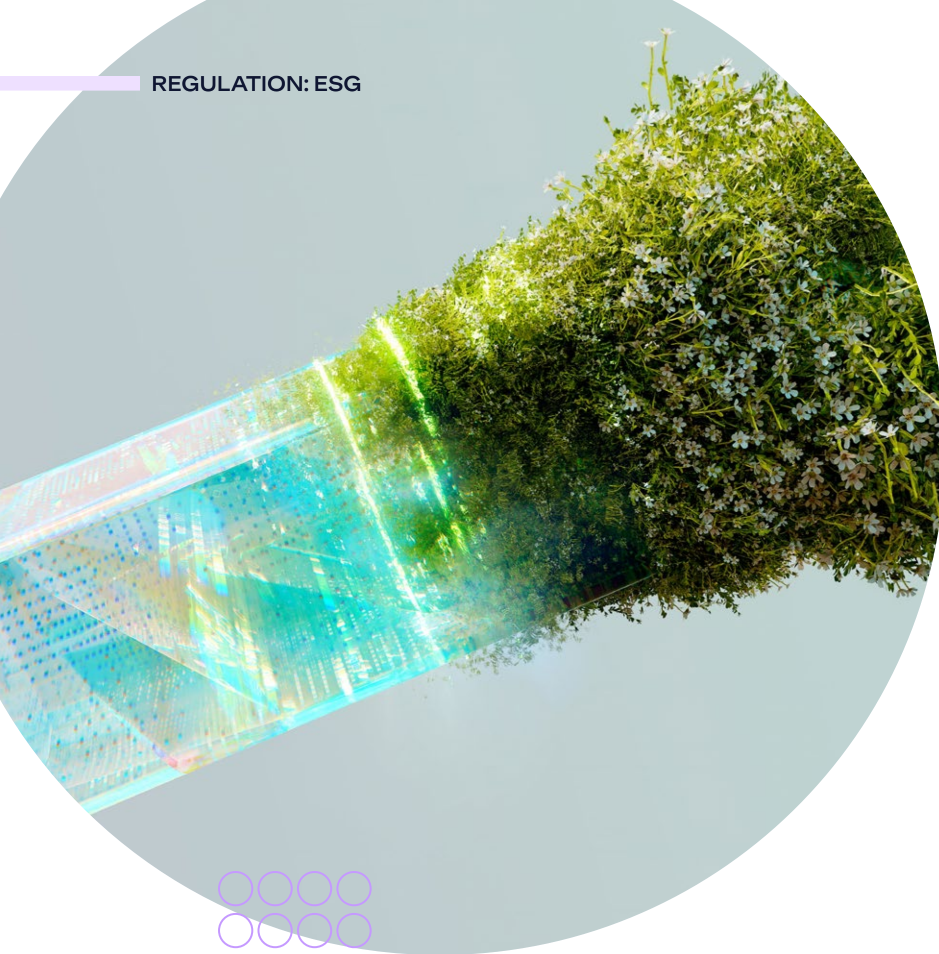
Within that context, there are various regulatory positions to be considered, the most pressing of which involve taxonomy and disclosure. This is where the picture begins to diverge. For example, taxonomy is a priority in many Asian nations. But China's Green Projects Catalogue, Japan's Green Bond Guidelines and Malaysia's Principles-Based Taxonomy all differ in their architecture.[3] An ASEAN Taxonomy attempts some unification, and its second version was released for consultation in March 2023. But it must still be refined for specific underlying sectors such as energy, and will only be finalized in 2025.[4]

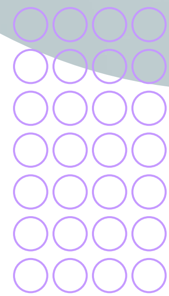
This illustrates a broader point: ESG regulation in Asia is likely to fragment further before it unifies into standardized approaches. This will be a challenge for treasurers.

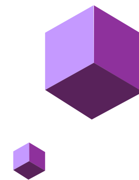
The situation is complicated by the growing imperative for companies to not only be green in their own activities, but to steward those of their supply chain. Today, this is largely a voluntary position, but its growing presence in ESG codes across the region suggests it is a theme that treasurers should anticipate. Thailand's One Report system requires supply chain disclosures,[5] for example, while China and Japan have voluntary disclosures (in Japan's case through a human rights lens) and Hong Kong uses a 'comply or explain' approach to supply chains.

One consistent trend is the need for disclosure, even if the substance of what must be disclosed varies. Some countries have required ESG disclosures for years – South Korea introduced it in 2019, for example – while others are still refining their practices (Japan introduced mandatory ESG disclosures in March 2023).[6] But every major Asian market has some level of disclosure expectation around environmental goals.

> "ESG regulation in Asia is likely to fragment further."







The picture in much of Europe tells us to expect greater regulation across the board around environmental and social principles in Asia, but also more precise regulation. For example, the EU sets out a distinction between funds that are considered light green – with some environmental or social characteristics – and dark green, which are fundamentally about sustainable investment.[8] That distinction does not yet exist in Asia, which has ramifications for compliance and marketing.

> "Many treasurers in Asia look to Europe for a vision of the future around ESG regulation."

European Guidance

"There is a lot that we are learning from Europe, where I think the market regulatory infrastructure – and the whole construct – is a little more advanced than in Asia," says Patil. Indeed, many treasurers in Asia look to Europe for a vision of the future around ESG regulation. "They look at what's happening in Europe and then try to transpose it here."

This strategy has its clearest expression in the Common Ground Taxonomy, an initiative launched between China and the European Commission at the 2021 United Nations Climate Change Conference, (COP26)[7] held in Glasgow. This sought to establish a common understanding of 61 activities across six sectors regarding their sustainability.

A Carbon Question

While markets for carbon trading do exist in Asia, the lack of a mandatory tax in most jurisdictions limits their use. But treasurers should prepare for the possibility of compulsory carbon taxation, as several countries are moving towards establishing the infrastructure for them.

China, South Korea and Thailand have national emissions trading schemes (ETS). Vietnam plans a pilot scheme in 2025 and Japan will introduce one in 2026, while Indonesia created a mandatory ETS scheme for the power generation sector in February 2023.[9] Singapore already has a national carbon tax.

Companies must be sure to stay clear of greenwashing accusations, a matter of increasing concern among Asian regulators. The Monetary Authority of Singapore issued new guidelines which took effect in January 2024 to help reduce greenwashing risks for funds.[10]

> "Many of our clients are getting their directions from the board"

Stakeholder Pressure

In addition to state-directed measures, companies are being pressured to lift their standards in ESG by their boards and their investors. Australia is an example where the superannuation (pension fund) sector has proven the most powerful driver of ESG reform in companies.

"Many of our clients are getting their directions from the board and have started implementing ESG policies," Patil says. "From supplier onboarding to looking at carbon footprint, treasury and measurement, there is a journey they have started."

Banks like Citi assist companies in their journey in many ways, including the crucial question of measurement. "We facilitate the journey by giving them an insights dashboard," says Patil. This helps companies with their own reporting as well as for their supply chain.

Citi also rolled out a sustainable trade financing solution, which embeds KPIs around sustainability into supply chain finance, offering incentives like lower cost financing to customers who meet the KPIs.

Other innovations include sustainable deposits, where customers pump surplus liquidity into a vehicle that a bank manages on their behalf to exclusively fund sustainable activities.

Opportunities

While ESG represents a compliance burden for treasurers, it is also likely to present a major opportunity. Companies that stand out for their ESG credentials will increasingly be able to access distinct and cheap sources of funds, as is the case in Europe. The growing presence of ESG financing, whether from banks or institutional investors, will be both a spur to ESG sophistication for corporate treasurers in Asia, and a tangible reward for progress.

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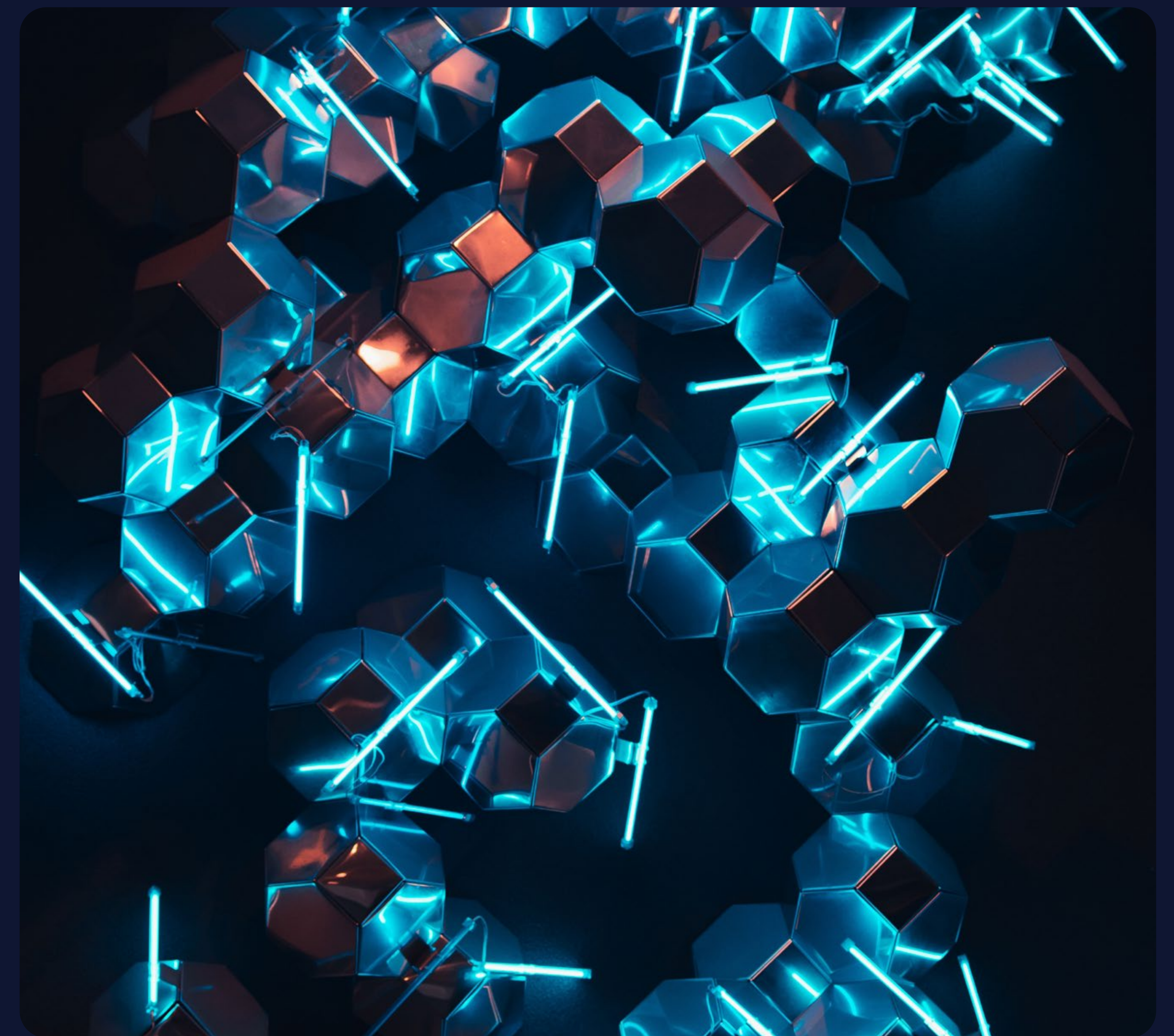

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