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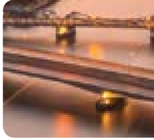
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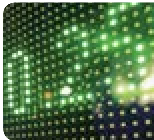
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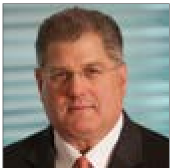

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WELCOME

The global macroeconomic, business and regulatory environment is always in a state of flux. Every day corporate treasurers are faced with new challenges to support their commercial businesses so they continue to remain competitive and operationally efficient. Likewise, existing treasury and working capital management solutions are continually being enhanced due to changes in market conditions and new solutions developed by leveraging technological innovation. For treasury professionals and their organizations, adaptability and a willingness to consider new ideas are of paramount importance so they stay relevant to their corporate strategic objectives.

In this issue of *Perspectives*, we look at a wide range of contemporary issues that are impacting treasuries across the globe. Many of our articles tackle head-on the need to reassess existing treasury and working capital management practices. For example, in our article on corporate risk management, we highlight the negative impact on corporate earnings of foreign exchange rate volatility, and, in particular, the strength of the U.S. dollar and weakness of many emerging market currencies.

Similarly, another article examines how corporate treasurers in China are re-evaluating their treasury organization structures to drive greater efficiency and effectiveness within their operations by leveraging new technologies, while taking advantage of market liberalization. While the country is in the headlines because of slowing economic growth, stock exchange and exchange rate volatility, the overriding belief of most economists is that China will remain a major growth market for multinationals, although at lower growth levels. To succeed in China, corporate treasurers are actively assessing the impact of recent regulatory changes, and looking to take advantage of new opportunities to improve liquidity and risk management, with greater control over their cash flows.

Latin America is also undergoing profound change. The region has a reputation – deserved in some instances – for high levels of regulation. Nevertheless, new tools and strategies are emerging to manage FX and other risks more effectively than ever before, while improving operational and

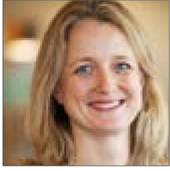
liquidity management efficiency. The opportunities range from simple options such as bank relationship rationalization to more complex solutions such as re-invoicing centres that can help achieve cash optimization. Additionally, Shared Service Centers in the region, initially low cost payment processing centers, are now evolving into state-of-the-art world-class Centers of Excellence, delivering higher value-added services to their organizations across a myriad of sophisticated enterprise services from accounting, global financial reporting and human resources support.

Just as technology creates new threats – in the form of cybercrime – so too does it offer new opportunities.

Elsewhere in this edition of *Perspectives*, we take a look at newly emerging challenges all companies are facing such as cybersecurity. Corporates have always had to deal with ensuring they had controls in place to mitigate and control fraud and theft, but cybercrime opens up a worrying new front in the battle to prevent damage to the company and its reputation. Our cybercrime article looks at both insider and outsider attacks, including those from "hacktivists," money launderers and state-affiliated terrorists seeking to undermine the digital integrity of another nation. As the piece makes clear, understanding the nature of cyber risk is the first step to improving security.

Just as technology creates new threats – in the form of cybercrime – so too does it offer new opportunities. Our "*Innovations Supplement*" assesses the benefits of simplification of bank-to-enterprise connectivity; harnessing "big data" to create value; and leveraging self-service technologies.

We hope this edition of *Perspectives* offers you, our valued partner, new insights about the challenges of a rapidly changing global business environment, and the solutions available from Citi. As always, we would be delighted to get your feedback and discuss how the issues raised in this edition affect your business, and more importantly, how we at Citi's Treasury and Trade Solutions group can help you achieve your goals.



Sabine McIntosh

Global Head of Account Services and Digital Security, Treasury and Trade Solutions, Citi

FIGHTING CYBERCRIME

Cybercriminals are becoming more menacing by the day.

With the explosion of online interactions in today's business world, tight and efficient cybersecurity has become a business imperative.

Sabine McIntosh, Global Head of Account Services and Digital Security in Citi's Treasury and Trade Solutions business, responds to pressing questions about how companies can help protect their treasury systems, information and transactions from cyberthreats.

From where are the biggest threats to cybersecurity coming?

Banks and corporations are accustomed to threats of fraud and theft, having always been prime targets of villains. So, as with any battle, the key to winning the war on cybercrime is to know your enemy.

Most cyberthreats result from intrusive activity and that activity can come from either inside or outside an organization.

Insider attacks, fortunately, are less common than outsider attacks. They, unfortunately, also are harder to detect. Internal attacks generally are initiated by individuals with access to security or transaction systems whose malice can include activities such as redirecting funds or sharing confidential information. It is not unusual for these employees to go undetected because they are trusted and valued.

Outsider attacks can come from many types of intruders. For example, "hacktivists" are primarily motivated by political agendas rather than monetary gain. They typically rally support via social media forums and provide their supporters with tools to attack a particular target. Their tactics may also include increased attention in the press, in which case victims can suffer loss of public trust in addition to operational or financial consequences.

Cyber terrorists, another brand of modern day bad guys, can include money launderers and also one of the most sinister criminal groups of all: state-affiliated terrorists who usually act on behalf of a hostile country seeking to undermine the digital integrity of another nation. These attackers may invade a system and lie dormant for years, sometimes tracking information during that time, then suddenly assault or disable a system.

Internet-based social networking sites and social engineering have become popular platforms for cybercriminals to identify like-minded miscreants and engineer attacks. In fact, spear phishing, baiting, from-a-friend communications and similar social engineering schemes are among the most prevalent threats facing organizations today. These attackers secure access to restricted information by exploiting psychology.

Masquerading, for example, is a technique commonly used by fraudsters to get their hands on personal information and gain access to financial accounts. Spear phishing attacks can both compromise an individual's personal information and create vulnerabilities for others. If, for instance, an executive opens an email from a spear phisher that looks like it's coming from a trusted source, the spear phishing crook could compromise the executive's email account and then pose as the executive and send an urgent email to an employee asking for confidential information or to authorize a transaction. Employees usually comply and in some instances employees actually bypass security requirements to expedite the request since it is coming from an executive they know.

Cybersecurity also requires discipline and vigilance in using anti-virus software and in updating systems and browsers.

How can my organization fend off cyberattacks?

Understanding the sources of threats is the first step to mitigating security breaches.

Robust cybersecurity systems and operating processes are critical. However, a large part of preserving network and transaction security involves good old common sense.

Take insider threats. One of the most basic things that companies and their banks must do is to maintain up-to-date records of employees who are authorized to access banking systems and transactions. This includes a strong focus on the credentials, such as security tokens, for accessing systems and applications and the levels of entitlement. When personnel changes occur, records and security access must be immediately updated.

Employing multiple levels of approval for transactions, particularly high-value transactions, also increases controls and helps reduce the risk of villainous inside activity. Citi's CitiDirect BE® online corporate banking platform, for instance, supports up to nine levels of approval for releasing payments.

In addition, transactions themselves need to be monitored. Using reporting tools that help spot unusual transactions and account activity are invaluable.

With many cyber crooks gaining access to corporate networks and information via social engineering tricks, employees need to be trained on how to handle requests from anyone contacting them claiming to represent a bank or asking for sensitive information. Regular communication and training help reinforce the need to be on the lookout for cyber fraudsters and make employees aware of the latest threats.

Cybersecurity also requires discipline and vigilance in using anti-virus software and in updating systems and browsers. Using an unprotected device, even once, opens the door for a cyber outlaw to wreak havoc. So discipline, in this sense, means ensuring that personal gadgets that employees use to log in to corporate networks, in addition to office PCs and laptops, are loaded with the most up-to-date virus and malware protections.

What protection does Citi provide against cyberthreats?

Financial institutions such as Citi have invested huge amounts of money and resources to create cyber forts that aim to protect their network and data.

Some of the weapons in Citi's security arsenal are visible to customers. Others work in the background and only make themselves known when there are signs of a potential breach or threat.

Citi's cybersecurity strategy includes, for example, a multi-layer model of defense for spotting and curtailing cyber invasions. It involves tagging information to detect suspicious activity at the earliest stages, which is when an attacker is trying to find a vulnerable spot in a system. Tagged information is used to identify and thwart specific incidents and also to spot future threats.

Over many years, Citi has developed a three-pronged approach to digital security that includes channel protection, transaction monitoring, and data privacy.

Channel protection involves blocking attackers from entering an online platform or data transmissions channel, for example. This control is achieved through strong login credentials for authentication. All data that is exchanged with our clients is protected with robust encryption tools that prohibit attackers from reading information while it is being transferred between clients' systems and Citi.

Many attackers are focused on transactions themselves, so both companies and their bank need to be vigilant about monitoring payments, the second prong, to detect any outliers. Citi's Innovation Labs are exploring solutions that aggregate a company's payment data across countries, currencies, payment methods and beneficiaries to derive normal payment patterns and then flag transactions that fall outside historic trends for review.

The third prong involves protecting data privacy. This is achieved through the bank's data privacy and governance policies and a focus on entitlements and ensuring that only authorized persons can view and access information. Data privacy also is protected through multiple levels of security, backing up data at different sites, and using a variety of systems to protect and ensure the accuracy and reliability of data.

What if a cyberattack happens?

As is the case with any crime, acting quickly when a cybercrime hits is essential. So is communicating that the crime has occurred. Gone are the days of a hush-hush attitude towards cyberattacks. Given the high stakes involved, financial institutions and their clients must work together and communicate immediately when a breach does occur.

One reason is that the sooner all relevant parties and authorities are aware of a cyber intrusion, the more likely it is that the culprit will be caught and that any stolen funds will be recovered.

Corporations and their banking partners must remain united in their efforts to curtail cybercrime. Sharing information, new ideas and best practices among them makes both parties even stronger.

CORPORATE RISK MANAGEMENT: TIME TO REASSESS PRIORITIES

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Many global corporates continue to show stable sales growth, strong and improving balance sheets, and ample liquidity. Furthermore, the historically low cost of funding, coupled with a substantial fall in commodity prices, have contributed to enhancing net profitability. These are welcome advances compared to the challenges faced during the last global financial crisis.

Yet, against these benign conditions, we continue to see quarterly corporate earnings negatively impacted from foreign operations. While specifics differ from company to company, recent public statements point to foreign exchange (FX) risk as one key source. Our own studies, including data from the latest Citi Corporate Treasury Diagnostics Global Benchmarking Survey and our bespoke corporate studies, bear this out. There is heightened impact on translated earnings due to continued USD strength and volatility in the emerging market (EM) currencies. And, at least some of these impacts appear to be due to shortcomings in companies' risk management architectures that can be readily addressed.

Four key themes emerging

From recently conducted Citi Treasury Diagnostics research and our client advisory engagements, we identify four key themes. Figure 1 summarizes some observations that shape these themes.

Theme I: Treasury centralization – still ongoing

For many companies, outside of their major developed operating markets, the focus for centralization was often on cost extraction through centralization of operational activities, for example, deploying Shared Service Centers for payables, receivables, and procurement processes. The advent of sophisticated ERP and Treasury Workstations has changed the landscape. Many treasury departments have materially enhanced liquidity

and risk management by deploying "Functionally Centralized – Globally Distributed" treasury models that support the operating businesses across the globe. Meanwhile, procurement, payables and other functions have progressed towards universal standardization of core financial processes.

This dual centralization – of treasury processes and business working capital processes – enormously enhances the ability to get visibility into risks and funding inefficiencies inherent in commercial activities across the supply chain. This has been a necessary, if not sufficient, step in better measuring and managing risks.

This remains an ongoing process. Many companies can benefit from completing the rationalization and rollout of infrastructure for

Figure 1: Key Observations and Implications

Observations	Implications
Continued centralization of Treasury risk management	Resource optimization, counterparty risk, hedging costs, exposure quantification
Consensus on risks created by strong dollar cycle, limited action taken	Move to review existing hedging programs.
EM Risk Management: bifurcated approach from G10 in both policy and execution	Unexpected jump risk in both earnings and key financial ratios
In some cases, subsidiary financing and risk mitigation remain outside the scope of central Treasury decision making.	Earnings volatility, thin cap, tax, credit rating, re-capitalization
Exposure quantification evolution: from traditional notional risk measurement to sensitivity-based analysis	Required high degree of risk understanding across both financial and operational parts of the business
Heavy preference for layered hedging programs, limited hedging beyond six months	Limited effectiveness in reducing volatility and economic risk
Focus on internal market risk visibility architecture	Accounting based and economic earnings volatility, higher operational and transactional costs

A critical first step is to understand a company's FX risk from a portfolio perspective – the overall potential impact from the basket of exposures, rather than from each individual currency.

centralization of treasury. This includes technology enabling full visibility into risk; deployment of people into regional treasury centers closer to the company's operating markets; and, centralization of processes including liquidity and FX risk management into advanced structures such as in-house banks. Of course, this will continue to evolve as corporates' exposures grow in more markets and currencies, and as local capital controls and the geopolitical landscape changes.

Theme II: Treasury engagement with business – creating value

Citi Treasury Diagnostics survey data shows continuing increase in engagement by treasury in commercial decisions. At many companies, this reflects a formalization of treasury engagement "upstream," as business decisions are made, to ensure that balance sheet and earnings stability implications are considered. Ensuring there is recognition of the margin impacts of currency moves on nonfunctional currency sales, or working capital funding costs of extended customer credit terms in high interest rate currencies, has propelled treasury teams to become proactive partners to the business.

Again, this is an ongoing trend. With a global view across the end-to-end supply chain, treasury is in a unique position to help identify and mitigate risks by considering embedded currency risks and funding costs in contract terms and invoicing decisions, leveraging natural currency offsets across the supply chain, and so on.

Theme III: Risk optimization – it's about the basket

As noted earlier, many companies have reported significant financial impacts on earnings from currency moves. From survey data and client engagements, one of the underlying reasons is that many companies have been operating under FX policies not well-aligned with their own risk management objectives or with rapidly changing market conditions.

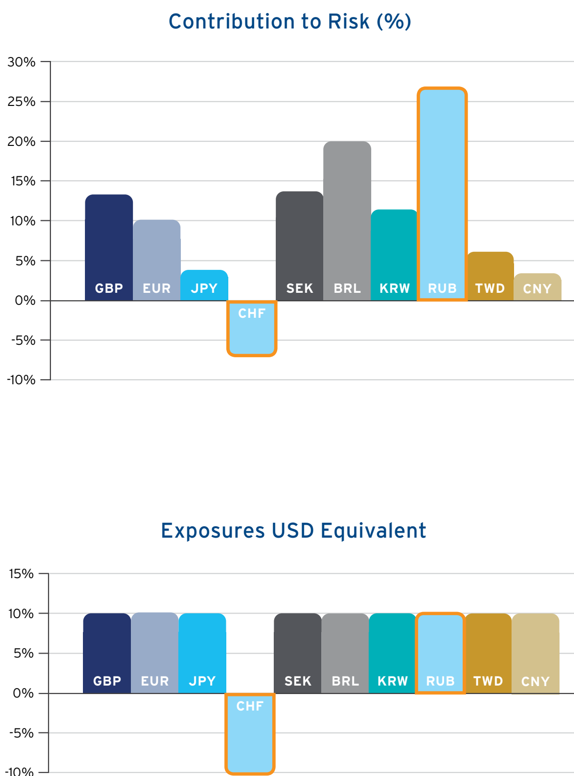
A critical first step is to understand a company's FX risk from a portfolio perspective – the overall potential impact from the basket of exposures, rather than from each individual currency. From this perspective, the company has a basket of exposures with different currencies that do not move as one, creating natural risk reduction from diversification. Modelling this properly produces a risk profile that incorporates the portfolio effect, which allows companies to make real cost savings in risk reduction. The CitiFX Portfolio Risk Optimization tool supports this analysis and facilitates a company identifying and quantifying the real sources of currency risk – the size of an exposure is not the sole measure of the risk it creates, with volatility and correlation to other currencies as important factors.

In practice, a key input in determining optimal hedging strategies is identifying the greatest contribution to risk (%) in relation to the notional exposure, as illustrated in Figure 2.

Theme IV: Intercompany flows – don't leave opportunity on the table

From an FX risk measurement perspective, aggregating and netting intercompany flows in original currency to determine currency requirements is a tried and tested process. However, many companies have yet to extend these proven structures beyond their major developed operating markets.

Figure 2: Risk Optimization



Risk Identification

The nominal size of an exposure does not dictate the contribution to risk:

- RUB is only 10% of the portfolio but contributes more than 30% of the risk.
- The negative CHF exposure actually reduces risk.

How much risk an exposure creates depends on its volatility and correlation to other exposures.

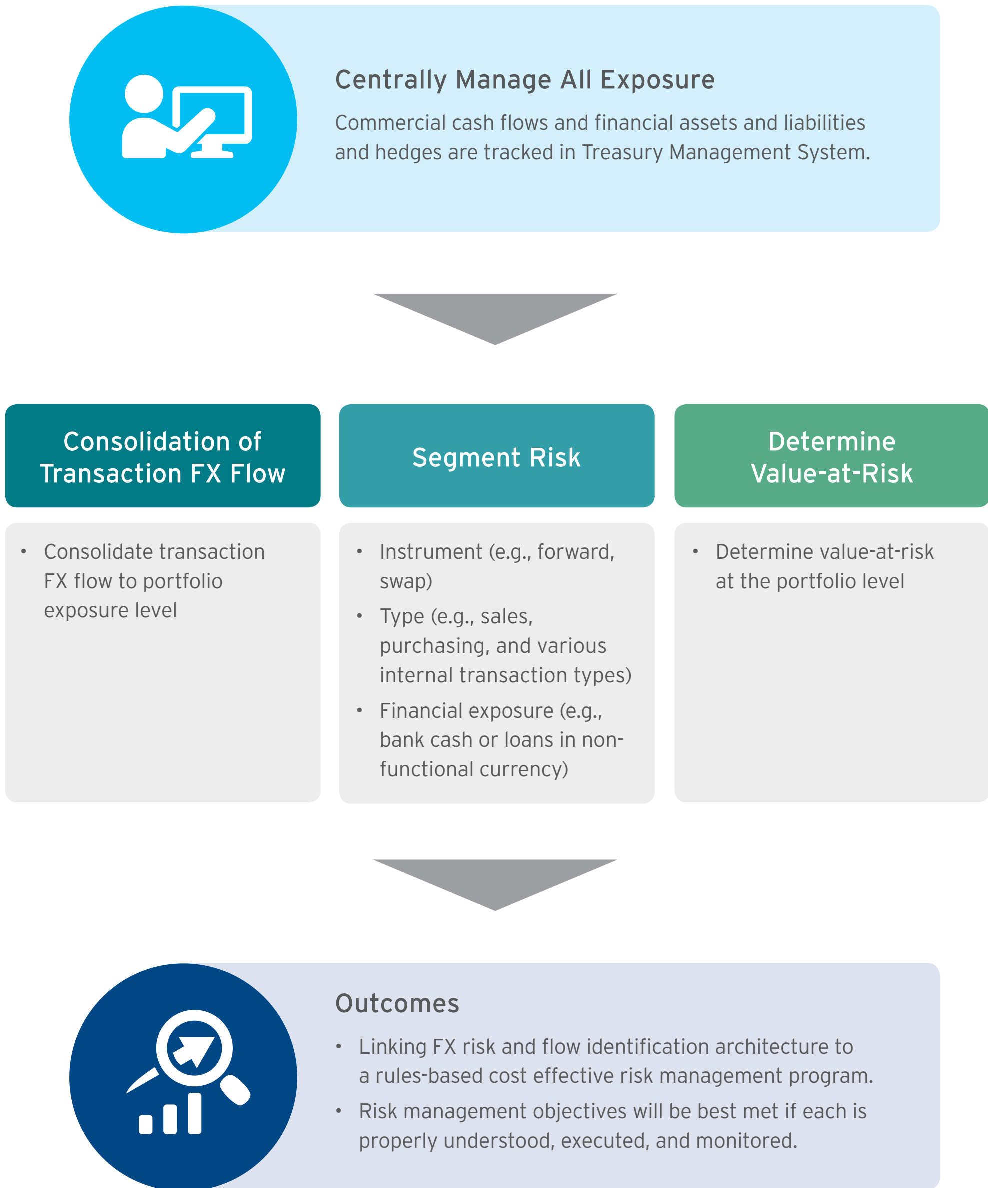
Diversification

Diversification means the portfolio, as a whole, generates less risk than the sum of its parts.

Risk Reduction & Cost Saving

Portfolio risk analysis identifies opportunities to take advantage of natural diversification in the portfolio as well as other sources of cost reduction for hedging.

Figure 3: Risk Management from Inception to Execution



Today, regulatory liberalization allows extension of netting to encompass intercompany commercial flows across many more currencies and markets than was possible a few years ago. Other opportunities include incorporating, into the netting process, non-commercial flows emanating from treasury transactions and inter-company recharges and allocations, further extending a company's ability to aggregate and net FX risks.

From inception to execution

A myriad of functions and responsibilities have fallen within the treasurer's remit compared to that of just a few years ago. From dealing with complex regulatory changes, to implications of the OECD Base Erosion and Profit Shifting project on intercompany funding structures, to corporate M&A transactions, the treasurer is being asked to perform more with static or falling headcount. Against this backdrop, the political and economic environment remains both complex and potentially volatile.

In light of this, it is perhaps not surprising that one of the core themes of many treasurers has been reviewing treasury strategy, policy and practices. While most would anyway conduct reviews regularly to ensure that practices remain aligned with the operating business, company risk management objectives, and funding needs, what is striking is the scope and granularity of these assessments.

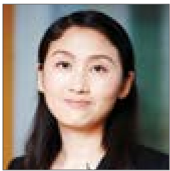
From our work with clients on many of these assessments, it is clear that, across companies, there are many common elements in key contributors to risk. The path towards effective FX risk management, from inception to execution, often goes along the lines of the illustration.

Our intention is not to single out specific structural risk management shortcomings, as many of the challenges are company or industry-specific. Nor is it to prescribe a "one size fit all" solution. However, the perspectives offered in this article are based on our observation that some of the key mitigating constructs to address these issues can be applied by many more companies than do employ them today.

ANATOMY OF CHANGE: RETHINKING TREASURY IN CHINA

Yan Li

Director, Treasury Advisory Services Group, Greater China, Citi



Cline Zhang

Director, Shanghai Free Trade Zone Branch Manager

Cash Liquidity Head, China, Treasury and Trade Solutions, Citi

China has been a crucial driver of the global economy for the past decade. Despite a recent slowdown in its economic expansion, it is certain to remain a major growth market for many of the world's leading multinationals for the coming years.

Against this backdrop, the renminbi (RMB) has developed into a viable currency for cross-border trade. While onshore foreign exchange (FX) markets remain tightly regulated, the launch of the Shanghai Free Trade Zone (SFTZ) has improved offshore access. Free trade accounts provide more flexibility to deploy SFTZ-based hubs to access offshore funding and FX markets. And the options are growing. Free Trade Zones (FTZ) have been launched in Guangdong, Tianjin and Fujian, each with a geographic focus. The Guangdong FTZ is for cooperation with Hong Kong and Macau; Tianjin is for Beijing and Hebei province, while Fujian is targeted at Taiwan.

Meanwhile, in the offshore market, RMB spot and derivatives trading volumes have significantly increased and spreads have tightened. As an indication of the longer-term outlook, the International Monetary Fund sees it as a question of when, not if, the currency will join its special drawing rights (SDR) basket as the fifth constituent alongside the U.S. dollar, yen, pound and euro. From recent updates, the IMF is focusing on determining whether RMB is "freely usable" (widely "used" and "traded" internationally), and has proposed an extension of the current SDR basket to smoothen the transition to a new one including the RMB.

Meanwhile, a wide range of data already shows significant take-up in international use and trading. The implication is that the RMB is firmly on the path towards a global reserve currency.

These ongoing changes are creating new opportunities for multinational treasury teams in liquidity management, risk management, and cash control.

Centralizing risk management

Mitigation of FX risks requires concentrating it at a level where appropriate skills and tools are available. In the past, restrictions on free movement of RMB meant that FX risk management strategies had to be conducted at an onshore

entity level, rather than centralized at the regional or global level. While currency risks could be hedged offshore, such as using non-deliverable forward, deploying it and other alternatives came with their own disadvantages.

Today, companies may reduce currency and funding mismatches by switching to renminbi invoicing and settlement. To the extent that affiliates or third-party suppliers and customers are persuaded to use the currency, this may reduce FX exposures and enhance risk management. At the very least, companies can have their China entities pass their FX exposures to affiliates abroad, and then further centralize risk management to regional treasury centers that are best placed to manage hedging activities to improve efficiency, visibility and control.

Recent changes have only made it more pressing to centralize corporate risk management and better deal with FX exposures. In August 2015, the People's Bank of China – the central bank – altered the way it fixes the RMB/USD middle rate, now taking into account the previous day's closing spot rate. This is a significant move towards a market-oriented determination of the currency value. Many are expecting more volatility as both the market and the central bank adapt to a new mechanism.

Globalizing cash and liquidity management

In the absence of exchange controls and other currency-related restrictions, companies rationalize domestic banking and mobilize cash on a regional or global basis to reduce debt, to minimize reliance on external financial markets, and to run the company with less operating cash.

The International Monetary Fund sees it as a question of when, not if, the currency will join its special drawing rights basket as the fifth constituent alongside the U.S. dollar, yen, pound and euro.

Evaluate cash flows and net RMB exposures

Consider risk management vs. business implications

Change invoicing currencies to create natural hedges

Past restrictions meant that companies often ended up with inefficient banking structures and trapped cash in China.

First, even where a company had centralized back office operations (for example, using a shared services center), the requirement that cross- border settlements be accompanied with physical delivery of hard copy supporting documents to the local bank made it hard to rationalize accounts. Today, there is a lesser dependence on supporting documents. Renminbi cross-border payments for trade settlements can be made on a paperless basis, using scanned copies of specified documents. In some cities, even foreign currency payments can be made on a similar basis. This has allowed companies to rationalize domestic account structures with their regional or global bank, in addition to improving efficiency using paperless solutions.

Second, restrictions on the cross-border movement of cash hampered companies' ability to incorporate China into global liquidity structures, leading to trapped cash. This was particularly true when trying to mobilize cyclical surplus cash across borders. Today, multinationals can link their domestic operations into cross-border liquidity management structures. This applies to both renminbi and foreign currency flows, although different requirements need to be adhered to. There are additional advantages in operating from the SFTZ, where qualified companies with regional headquarters, operating centers and international trade settlement centers can pool foreign currency or renminbi with offshore entities under more relaxed requirements, which provide larger lending quotas controls on two-way renminbi pooling.

To determine an action plan, treasury teams should conduct a self check on their liquidity management. Does the company's current China liquidity management deviate from the global standard process? If so, given where liquidity is generated and required, does it make sense to connect China domestic cash pools with the company's regional or global cash pool? Of course, apart from cash and funding needs, relative onshore and offshore interest rates, and tax considerations need to be factored in.

Rationalize bank accounts and payment flows → Examine domestic structure and identify cash leakage points → Explore cross-border options

As with FX and liquidity management, these advanced structures were previously not possible in China, apart from very limited circumstances.

Deploying advanced treasury structures

Globally, multinationals deploy structures such as netting, in-house banks, and payments-on-behalf-of (POBO) to increase the efficiency of their cross-border treasury management.

As with FX and liquidity management, these advanced structures were previously not possible in China, apart from very limited circumstances.

Today, RMB and foreign currency netting is permitted under People's Bank of China and State Administration of Foreign Exchange's pilot schemes. Pilot companies are allowed to net off their payables and receivables with an offshore center, although they need to go through a leading company. Again, there are further advantages to operating within the SFTZ, where companies are allowed to conduct RMB netting without requiring a leading company. Regulatory changes also allow the deployment of POBO and receipt-on-behalf-of (ROBO) structures.

For foreign currency cross-border flows, which are regulated by the State Administration of Foreign Exchange, approved pilot companies can establish an entity in China to make or collect foreign currency payments on behalf of their China affiliates. For RMB cross-border flows, within the SFTZ, qualified companies can even extend their POBO/ROBO counterparts from affiliated companies to external companies in the same supply chain.

Clearly, if a company's China cross-border flows are mainly denominated in RMB, its subsidiaries can be served by its overseas IHB in a fairly typical global setup.

Since these advanced structures offer further benefits in foreign exchange risk and liquidity management, companies should consider these options as part of their planning.

Embracing the opportunities

Experience shows that China is determined to continue driving renminbi internationalization. The significant regulatory changes to date enable multinationals to integrate existing China practices into established global processes.

Many are realizing enormous benefits in increasing overall control, efficiency, and effectiveness.

At the same time, it is only realistic to recognize that the regulatory environment remains complex. Different regulations apply inside

and outside of special zones such as the SFTZ, and they are subject to frequent changes. Equally, many applications sometimes involve intricate dialogues with regulators, rather than simple submission of forms. To take full advantage of China's evolving treasury landscape, it is essential to maintain a close dialogue with a banking partner that has up-to-date knowledge of regulatory developments, strong relationships with all relevant regulators, as well as the global capabilities to meet your firm's treasury needs. It can make a difference in achieving a company's goals in China.

Corporate Objectives	Now	Next Step	Ideal Future
• Integration with commercial flows	• Evaluate opportunities to change intercompany or third-party invoice cycles and settlement to RMB • Improve natural hedges • Gain potential sales and supply chain benefits	• Centralize FX risk and trading activities at treasury center	• Review global commercial flows as RMB becomes world reserve currency • Embrace changes in both onshore and offshore RMB capital and FX markets
• Enterprise-wide liquidity management	• Contribute China flows into offshore liquidity strategy with cross-border lending/pooling combined with FX	• Integrate and automate China flows into global or regional liquidity pool	• Continue to make China flows more fungible within corporate global liquidity management strategy
• Yield optimization	• Execute RMB short-term investments considering offshore vs. onshore rates	• Increase investment weightage of RMB in short-term asset allocation	• Consider RMB in long-term investment strategy as it becomes a world reserve currency

innovation

The "megatrends" of digitalization, urbanization and globalization are creating new paradigms for how enterprises conduct business, communities develop, and individuals interact.

In today's increasingly compressed and complex global economy, financial institutions, which hugely impact societies and commerce, have a responsibility to leverage the innovation opportunities of emerging technologies in ways that benefit their clients.

This special supplement to *Citi Perspectives* takes a look at three areas where innovations are enhancing the world of treasury and financial services:

- Simplification of bank-to-enterprise connectivity
- Leveraging self-service technologies to improve the client experience
- Harnessing "big data" to create client value

We hope these articles will pique your interests and prompt you to contact your Citi representative for further discussion.

Rene Schuurman

Global Market Manager, Channel Services, Citi

INNOVATIONS TRANSFORM CORPORATE-TO-BANK CONNECTIVITY

In a world of digital banking and electronic workflows, corporate-to-bank connectivity, which once included few options, has become a focal point for both corporations and their banking partners. Innovative responses to connectivity challenges include turnkey and bank-agnostic connectivity solutions.

The rise in digital banking, treasury workstations, Enterprise Resource Planning (ERP) systems, and other efficiency-enhancing technologies has forever changed the face of cash management. They have also fostered new corporate-to-bank connectivity demands, models and innovations.

Most corporations, particularly those that span large geographic regions, maintain multiple banking relationships, the complexity of which is likely proportional to the complexity of the organization itself. Until even a few years ago, when organizations wanted to exchange data and information with their banks often, their only option was proprietary data exchange software provided by their individual banks. These host-to-host connection services, which are still commonly used today, vary in format and functionality from bank-to-bank. Thus, transmitting a bulk payment file, for example, requires using bank-supplied file formats.

For companies deploying ERP or treasury workstations solutions across multiple businesses and geographies, managing and coding multiple file formats for numerous banks drives up maintenance costs and transaction processing.

The industry has made some headway in easing this burden through the use of ISO 20022 XML and other industry standard formats; however, the lack of a single file standard universally adopted among all banks and their customers makes harmonization difficult and leads to time-consuming implementations when a company needs to onboard new banking relationships.

For organizations with multiple banks and complex operating environments, dealing with multiple formats remains one of their largest connectivity challenges.

Emerging integration solutions

As almost anyone who has been involved in an enterprise software implementation can attest, the connectivity aspect of an integration project can have a significant impact on project timelines and costs. Depending on the connectivity method and scale of a project, implementation can vary between a couple of months to over a year.

To help companies leverage their enterprise technology investments and to respond to the challenges of proprietary host-to-host connections, corporations, banks and industry technology providers have all turned their attention to new innovative approaches to bank integrations.

Turnkey solutions that respond to specific integration challenges and cross-bank networks are redefining how corporations connect to their banking partners – and also helping to reduce the costs, timelines and complexity associated with achieving bank connectivity.

Take a solution from Citi, for instance, that simplifies the integration of a corporation's SAP ERP system with Citi for payment file transmission and processing. The CitiConnect® ERP Integrator includes a set of templates that can be loaded into a company's SAP system to automatically extract all required payment detail in predetermined formats so that they can be quickly accepted for processing at Citi. This non-intrusive tool uses ISO 20022 XML technology and SAP's standard F110 and F111 payment processes to simplify and standardize payment processing. Since no file programming is required and no internal SAP processes are impacted, companies that use the ERP Integrator were able to reduce their integration time, on average, by 60 percent, shaving weeks, and in some cases months, off their implementation schedules. Given the success of the SAP-based solution the next logical step is creating similar solutions for other enterprise software that is widely used in the marketplace.

Bank-neutral connectivity

Tools such as the CitiConnect® ERP Integrator™ represent cost-effective and efficient ways to optimize the use of enterprise application software with a single banking provider and may be ideal for companies that conduct a large volume of transactions with that provider.

For organizations with multiple banks and complex operating environments, dealing with multiple formats remains one of their largest connectivity challenges. That's where major undertakings by both SAP and SWIFT promise to redefine bank-to-enterprise connectivity.

These organizations, and their partners, have been on the forefront of developing bank-agnostic networks based on open standards for the interchange of financial messages, including payments, payment status and statements.

Faced with more options, corporations need to determine what is best for them.

Although still in the earliest stages of adoption, these cloud-based networks represent a new model, similar to the classic telecom standards-based virtual private networks (VPN) model, for connecting corporations and their banks. These new networks, rather than being built around telecom technology, are built around software technology, such as that provided by SAP, or a common interface technology such as SWIFT.

Cloud-based Integration

SAP's virtual Financial Services Network (FSN) is a co-invention of SAP and a number of key banks. Citi has been one of the first banks to join the initiative and, in September 2013, to be connected to the FSN gateway. The SAP solution connects an organization's ERP system to the FSN and to the company's banks. When FSN extracts data from the company's ERP system it translates the data into the format that an individual bank wants and, conversely, it translates the data that the bank sends to the company into the native format of the ERP system. FSN has been developed as a pay-as-you-go subscription service that provides on-demand connections over a secure network that is owned and managed by SAP and enables users to offload bank-specific format mapping.

Because the solution operates in the cloud, it simplifies connectivity with multiple banking partners and eliminates the need for additional investment in on-site hardware or custom development.

For banks, the payoff for participating in FSN's development comes from being able to offer their clients access to the bank's global cash management capabilities through a single network connection.

Connectivity via SWIFT

Other notable advances in bank-agnostic connectivity have emerged in recent years from SWIFT. The member-owned cooperative, that provides standards-based financial messaging services for nearly 10,000 financial institutions in over 200 countries, now also offers corporate-to-bank connectivity. Based on standards, SWIFT's products and solutions are more technology agnostic.

For more than 40 years, SWIFT has provided financial institutions with shared data processing, a global communications network, and a common language for international financial transactions. In 2006, it opened its network to corporations, offering them the ability to connect to their banks using SWIFT's messaging network.

With the introduction of this service, companies that wanted to exchange data over the network needed to either set up a direct connection, a proposition that can be IT-intensive and costly, or connect through a service bureau.

In response to cries from corporations for easier, more cost-effective bank-agnostic connectivity, SWIFT and member partners developed SWIFT Alliance Lite. Alliance Lite provides cloud-based connectivity over the Internet.

One size does not fit all

Innovations such as Citi's ERP Integrator, SAP's FSN, and SWIFT's corporate offerings all point to shifts in the corporate-to-bank connectivity landscape that include more turnkey solutions and bank-agnostic connectivity.

Despite the promising developments in corporate-to-bank connectivity in recent years, one thing remains the same: One size does not fit all.

Faced with more options, corporations need to determine what is best for them. Embedded technologies and processes, in addition to internal resources and budgets, all impact the path forward for corporate treasuries and finance departments.

However, one thing is for sure, banks that want to remain relevant in the marketplace must keep an eye toward innovation and make connectivity solutions one of their top priorities. The banks that do invest in connectivity technologies and data exchange standardization will remain in the best position to help their clients navigate this quickly changing terrain.

However, one thing is for sure, banks that want to remain relevant in the marketplace must keep an eye toward innovation and make connectivity solutions one of their top priorities.

Allison Szmulewicz

Client Operations Head of Infrastructure & Change Management, Citi

AUTOMATION AND INNOVATION IN THE CLIENT SERVICES ARENA ARE RESHAPING THE CLIENT EXPERIENCE

On-demand online capabilities yield fast, convenient alternatives to telephone-centric customer service.

In today's wired world, we have become a lot more self-sufficient. Many of us can't even recall the days when the only way to check the balance on a bank account or to see if a check had cleared was to call the bank or visit a branch.

A modern, computer-savvy generation is more accustomed to simply going online and quickly getting account information on-demand by themselves.

Over the past decade, greater automation and more sophisticated technology has dramatically reshaped the retail banking client experience, breaking down service barriers and giving customers direct access to and more control over their bank accounts and transactions. Now, they can perform common banking activities themselves, 24-hours a day, 7-days a week.

Now, the same trend toward online self-service is occurring in corporate banking. Faster, at-your-fingertips, more flexible banking services have improved the client experience for retail and corporate banking customers alike.

Speed and accuracy are king

As electronic communications and processes have become commonplace in both their personal and business lives, corporate banking customers' expectations have dramatically changed regarding how they interact with their banks. In response, banks are constantly looking for inventive ways to leverage technology, particularly with their online corporate banking platforms, to streamline and improve the way they deliver customer service. Similar to consumer banking, the tenet behind leveraging automation and innovation to create a positive client experience electronically is understanding what clients need, and then giving them the information and capabilities that they need when they need them, or even before they think they need them.

It's no surprise then that "Voice of the Client" surveys conducted with Citi's corporate banking customers reveal that speed and accuracy are two of the most important factors in defining the client experience when it comes to customer service.

These surveys also help Citi identify opportunities to deliver services online faster, easier, and more conveniently than via calls handled by service or account representatives, for example.

Another process that drives customer service innovation at Citi involves the meticulous analysis of metrics associated with more than eleven million calls annually that are fielded by more than 2,000 customer service representatives around the world. Citi's robust call metrics system yields intelligence that is scoured weekly. Key findings are analyzed by product and customer service teams to identify opportunities to augment both product and service offerings.

When reports revealed, for instance, that 200,000 inquiries a year were received from customers in Asia alone asking for account statements, the customer service and product teams dug further to determine what precipitated such high inquiry volumes. They learned that in part, customers were requesting statements for time frames that exceeded the three-month history provided via the CitiDirect BE®

"Voice of the Client" surveys conducted with Citi's corporate banking customers reveal that speed and accuracy are two of the most important factors in defining the client experience.

In addition to speed and accuracy, corporate customers want information about their accounts and transactions to be delivered in the way that is most useful to them.

online banking portal. When product enhancements were made to provide for 24 months of statements availability, online calls went down.

In another instance, large volumes of callers requesting the status of wire payments resulted in the implementation of real-time online payment tracking. When customers received direct access to payment status for U.S. dollar and foreign currency wire payments initiated from their Citi accounts, call volumes dropped 40 percent. Similarly, when customers received the online ability to change the status of their payments themselves, including the ability to amend, cancel and stop payments, they were able to speed up and simplify service requests by cutting out the middleman.

Flexibility moves front and center

In addition to speed and accuracy, corporate customers want information about their accounts and transactions to be delivered in the way that is most useful to them. This requires banks to think about the flexibility of their products and solutions.

Online banking platforms, which also constitute the most common platform for delivering an enhanced client experience, serve the needs of a broad range of employees from accounts payable clerks to senior finance and treasury executives. However, the information needs and expectations of employee groups vary depending on the job requirements. This means that banks must respond with multi-faceted solutions that can be delivered across multiple channels. For instance, mobile devices, including tablets, are becoming common place in corporate offices and executive suites. In response, banks such as Citi are developing mobile technology-based tools and applications that respond directly to this shift.

Online banking applications for tablets, as an example, can provide senior executives with graphically driven, at-a-glance, high-level information aggregated across their accounts globally so that they can quickly make cash positioning decisions. With the CitiDirect BE® application designed specifically for tablets, users can tap on charts or screens to drill down to more detailed information on transactions and account balances.

Other mobile capabilities that are providing treasury staffs with added flexibility include the ability to securely initiate, release and check the status of payments via their mobile devices.

Balance and payment alerts also can be sent to mobile devices, eliminating the need to constantly check to see when a payment or account reaches a trigger amount, or to verify when a payment's status has changed.

Three drivers of innovation

Banks that are focused on creating client services that deliver an optimal client experience have learned several valuable lessons on how to leverage the innovation process to achieve that goal. They include:

1 — Make sure there is a business problem to be solved. First and foremost, it is critical to understand the challenge or opportunity at hand as opposed to say, pursuing innovation for the sake of innovation.

2 — Listen deeply to clients.

- Analyze service and performance metrics. Canvas sales teams.
- Conduct customer surveys and roundtables.
- Use every tool at your disposal to thoroughly understand clients' pain points, their needs, and their suggestion for delivering service to them better.

3 — Include clients in the development and prototyping of offerings. Make sure that clients are engaged when developing new online service capabilities. More importantly, make sure that their views and voices are heard to avoid missing the mark. At Citi's Innovation Labs where new ideas and service concepts are born, clients are invited to prototyping sessions for new concepts and provided opportunities to touch and feel new capabilities before they are rolled out. They are even invited to collaborate and co-develop solutions to their challenges.

Once a new service capability is ready for launch, the rollout plan must include tools and training that help customers become familiar with its features and functionality so that they can access what they need when they need it. At Citi, a Client Service Academy option offers both instructor-led and online on-demand training and tutorials to optimize users' familiarity with and understanding of new service offerings.

As banking transactions themselves have become more commoditized, customers have made it clear that the factor that most distinguishes one banking provider from another is the caliber of the client experience that it delivers. These customers expect their service requests to be handled quickly, accurately, and conveniently.

Thanks to advances in digitization and automation, banks are increasingly able to offer their customers the same visibility into their accounts and transactions that their own service teams possess. The challenge for banks is to know and understand their customers' service needs better than they do. Then, through their innovation processes, banks can strive to exceed their clients' highest expectations and deliver self-directed service solutions that also enhance their customers' businesses.

Lisa Davis

Global Head of Enterprise Services, Citi

BIG DATA: AN INNOVATION TREASURE TROVE

"Big data" is the big buzz among companies looking to unlock the value of the staggering amounts of digital information they generate on any given day. But what exactly is big data and why should companies be concerned with it?

The plethora of electronic information being generated and captured around the world has expanded exponentially in recent years, particularly within financial services. This groundswell of data spurned the term "big data," an often-cited catchphrase for massive volumes of data, both structured and unstructured, that are too large to store and process using traditional server-based computing platforms and techniques.

In the not-so-distant past, data resided primarily in structured transactional databases, where schemas were fixed and data storage capacity was limited. In addition, it was not uncommon for historical data from past periods to be archived and for unstructured data to be ignored.

Thanks to new and emerging technologies, businesses now have a way to deal with large volumes of data, and unstructured data in a way that will add value for themselves and for their clients. The notion of managing and analyzing big data to fuel innovation, establish a competitive advantage, and improve operational efficiencies is quickly becoming a reality. The time is now for companies to capitalize on this opportunity or they may be left behind. But how does a company realize the potential value of its data and convert it to product and service innovations?

Unlocking the value

Across most enterprises, data is often captured in silo-like environments, where departments and business units develop their own requirements and maintain their own budget. Thus, the data cannot easily be shared and the opportunities for cross-business visibility and insights are limited.

For an organization to tap into the value of its big data, it needs a strategy. And this is no easy task. Vendors frequently focus on technology-based concerns and developments, such as new 'NoSQL' approaches to database management. While employing

the right technology is critical, more often than not factors such as organizational culture, people, processes, and the data itself determine the success of a big data strategy.

At Citi, approximately $50 trillion in transaction volume is processed through the company's channels annually, generating billions of different data points. So it's logical that Citi's big data strategy includes converting its data flows into business intelligence to improve Citi's own operations and also to help its clients enhance their businesses.

Implementing a big data strategy also requires having the appropriate human resources in place, experts that bring business and product knowledge in addition to technical expertise. At Citi, big ideas and big data innovations are born and nurtured in its global Innovation Labs. Here, silos are broken down and the heavy lifting gets done to transform mega amounts of data into business intelligence, actionable information, and real-world applications.

Technologists in the labs collaborate with cross-functional internal teams and with clients to validate new concepts and technologies. Given the breakneck pace of innovation, their goal is to rapidly evaluate promising technologies and next-generation digital solutions with an eye toward quickly piloting them in live business environments and eventual commercialization.

Data management is key

The innovation lab approach can be particularly effective when there is a solid and disciplined data foundation within an organization to build upon. One of the biggest hurdles in harnessing data involves identifying where the data is and its specific nature and characteristics so that it can be effectively mined and analyzed. Thus, every big data strategy involves a strategy for acquiring the data, ensuring that it is high quality, standardizing it, consolidating it and getting it in a single location. Often, up to 90 percent of a big data project can be consumed by sourcing, understanding and cleaning the data.

Investing in the quality of data at Citi paved the way for other innovative solutions, such as providing clients with a single consolidated global billing statement detailing transactions and fees across 85 markets, and itemization of bulk payments data, and transaction content enrichment to aid straight through reconciliations. Similarly CitiDirect BE®, Citi's electronic banking portal, offers rich analytic tools that provide access to financial data that drives strategic business decisions.

While sourcing, cleansing, standardizing and consolidating data are basic drivers of a robust data strategy, regulatory and compliance aspects of storing and using data also need to be considered. As with the

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adoption of any new and potentially disruptive technology, the regulatory and compliance risks need to be fully understood and managed. The complexity of data sources and usage can make it very difficult to navigate the ever-changing jurisdictional landscape and, thus, requires clear focus from the start of any initiative. The more that this can be done through a formal data management approach, the quicker the data can be both accessed and used to a business' advantage.

Hot topics and new innovations

While the opportunities for deploying big data tools and analytics are boundless, there are a number of notable innovations that speak to the specific concerns of managers of financial transactions and accounts. These include, for example, new ways to mitigate fraud and risks, to compare treasury practices to peers', and to improve cash flows and working capital. Big data is also improving the client experience, making products and services easier to use.

Take, for example, the world of payments. Banks, as processors of payments, capture a host of data sets that include details about payment originators, beneficiaries, types of payments, values, volumes, currencies, and fees, to name a few.

Big data analytic tools can be used to monitor a company's payment patterns. These patterns can then be matched with company objectives to identify the lowest-cost payment options to optimize accounts payables. Such an analysis could reveal, for example, opportunities for a company to save money by converting from check payments to electronic payments.

Predictive analytics takes the benefits of big data for financial transactions a step further to help companies improve their working capital. A Citi program, for instance, uses proprietary algorithms and rules to analyze a client's payments activity across its financial supply chain and make recommendations on available opportunities for improvement. Findings are presented in an interactive model that lets customers explore recommended options and perform scenario modelling in real time. These working capital optimization analytics also can compare a company's results to peer organizations in their industries for increased visibility into their working capital standing.

One way companies differentiate themselves is by focusing on the client experience in its finest detail. Big data has a major role to play. By logging and analyzing the smallest client interactions in a big data platform, it is possible to build a complete picture of customer experience journeys and identify pain points that can be eliminated.

Citi recently undertook an analysis of the logs from CitiDirect BE® that revealed an issue in entering a ZIP code on a form. This was never expressed in a service call, but was clearly resulting in customer frustration. By analyzing the online customer journeys, Citi systematically improved client interactions with its banking platform.

The path forward

Bottom line, big data is all about cutting through the noise and generating clear signals that speed decision-making and improve business processes. It creates both huge challenges and huge opportunities.

Faced with pressures to improve the customer experience, control costs, and stay ahead of the competition, leading companies have become information driven. As a result, the acquisition, management and analysis of data have heightened in strategic importance.

Looking forward, one thing is certain. When it comes to big data innovations that will benefit treasury and financial operations, financial service providers can only meet the needs of their clients through partnerships and collaboration — and by investing in data management and big data infrastructure.

Bottom line, big data is all about cutting through the noise and generating clear signals that speed decision-making and improve business processes.

John Ahearn

Global Head of Trade, Treasury and Trade Solutions, Citi

SUPPLY CHAIN FINANCE: A NEW DAWN

Supply chain finance is one of the greatest success stories of recent years. However, innovation – of the right kind – is required if corporates, their suppliers, and banks are to continue to enjoy its benefits.

Supply chain finance (SCF) has changed significantly in the past decade. Much of that change has been positive, bringing enormous financial benefits to both buyers and suppliers and strong revenues for banks that operate SCF programs. However, in recent years as competition has increased in SCF, there have also been negative developments that threaten to undermine the hard-won reputation of SCF.

Citi was a pioneer in SCF and continues to be one of the industry's leading players, with almost 500 buyer programs around the world. In the early days of the business, clients typically needed multiple sales visits before they signed up for a program: usually the first visit would be to simply explain how SCF worked; the second might pitch Citi's offering; and the third would be to convince procurement of the benefits of SCF.

Now, Citi receives up to four RFPs a month for SCF from all over the world. None of the companies seeking a proposal need the concept of SCF explained – it is now seen as a core banking product and a crucial payments and working capital tool.

SCF reaches unexpected industries

SCF now has widespread penetration in industry sectors that were not anticipated just a few years ago. For instance, pharmaceutical companies initially had little interest in trade products – as SCF was then thought of – because risk mitigation is not a priority given that they operate in a highly regulated industry. Now there is widespread use of SCF by pharmaceutical companies because the broader working capital benefits it offers are highly valued.

Another significant change in SCF over the past three years is the changing nature of the suppliers targeted by programs. Historically, programs focused on the smallest suppliers as they typically had the weakest credit ratings and therefore offered the greatest potential to arbitrage the difference in the cost of funds between the

buyer and supplier. Now the focus is on the working capital benefits that result from extending days payables outstanding (DPO) and consequently the largest suppliers are often prioritized.

For Citi, the change in focus to larger suppliers has compressed spreads as the credit arbitrage is reduced. However, loss in revenue has been more than compensated by the massive increase in volumes that the switch to larger suppliers has prompted.

Meanwhile, changes in some companies' business models, such as the telecoms industry, have also stimulated demand for SCF. For example, three years ago, the typical cost of a cellphone that came free with a contract was around $50; now that cellphone might cost $800. This sizeable outlay acts as a significant drag on the telecoms provider's balance sheet. In this situation, SCF can be used by telecoms companies as a tool to extend terms to handset manufacturers or negotiate lower costs.

Distribution becomes key

Citi's SCF volumes have increased by as much as seven times in the past three years. One impact of the dramatic growth in SCF volumes is that distribution capabilities have become critical to the ability of banks to provide SCF. Citi is committed to its clients and always retains some assets from clients' SCF programs. However, some of Citi's largest programs have over $4 billion in average days payables outstandings. No bank (not even Citi) can take that on its balance sheet given the need to manage concentration risk and the challenges associated with regulatory capital requirements.

Citi has been at the forefront of distribution initiatives in trade and SCF and has an extensive network of bank and non-bank financial institutions that buy Citi SCF assets, including institutional investors and hedge funds. This year, Citi's secondary sales are expected to reach more than $60 billion. Citi also works with bodies such as BAFT and SWIFT (which has launched the Bank Payment Obligation standard) to help to standardize SCF terminology and instruments and make them more easily saleable to investors.

While originating and distributing SCF represents a different model to a traditional working capital loan (which funds the difference between a company's payables and receivables), it offers far greater opportunities for Citi. Most corporates' procurement budget (and therefore their potential SCF program) is of a size many multiples larger than their working capital requirements. Moreover, by distributing assets and expanding the universe of potential investors, SCF can continue to be cost effective for suppliers even as spreads narrow.

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The trend among global corporates is for supply chains to continue to expand.

Getting the balance right

SCF has delivered huge benefits for corporates and their suppliers. If structured correctly, SCF enables buyers to extend supplier terms and increase DPOs while retaining accounts payables on their balance sheets. In return, suppliers gain access to immediate non-recourse funding and the opportunity to create a stronger strategic relationship. This relationship also benefits the buyer because if a supplier has production problems, it is likely to prioritize goods destined for a buyer that offers SCF as it knows it will be paid rapidly.

However, the increasing popularity of SCF and heightened competition (especially from non-bank technology firms and second and third-tier banks) has resulted in increased use of exotic structures designed to make SCF more attractive to the buying company. For example, some structures offer rebates so that the discount imposed on a supplier requesting early payment is rebated (after the bank takes a spread) to the corporate. Many such structures may be forbidden under Generally Accepted Accounting Principles and International Financial Reporting Standards.

In other instances, there are reports that some buyers are using SCF to push terms out to unsustainable levels – as long as two years – undermining the principle that SCF should benefit all parties and ultimately work to strengthen the supply chain. Other structures use financial engineering to enable corporates to keep their accounts payables on their balance sheets, while freeing up cash for investment. While such structures sound attractive, they add unnecessary complexity and risk to SCF.

Innovation in SCF is to be welcomed. However, the banking industry must recognize that if SCF is to have a long-term future – if its reputation as a valuable tool to strengthen working capital and supplier relationships is to be maintained – greater responsibility is required. The creation of arbitrary structures that seemingly offer unbelievable benefits to one party could ultimately affect the viability of SCF for all.

Making SCF work

The trend among global corporates is for supply chains to continue to expand. Implementing an SCF program therefore requires a bank with global reach. Moreover, the crucial element of any SCF program is a bank's ability to onboard suppliers effectively. While a program may be beautifully structured and flawlessly integrated, none of the working capital or other benefits are achievable unless a sufficient number of suppliers take part. Citi has invested considerable resources to achieve consistent onboarding messaging and a

seamless onboarding process. It operates dedicated multilingual supplier onboarding in 16 cities, supplemented by client teams in more than 100 countries.

Other important components in the success of an SCF program include the level of coordination between a corporate's treasury and procurement departments, and Citi's technology and onboarding teams. Treasury and procurement are incented by different goals: Treasury wants to improve working capital while procurement typically aims to optimize the cost of goods sold. While Citi can help to coordinate these departments, ultimately it is the responsibility of the corporate to align treasury and procurement.

Citi does have an important role in technological integration. The bank offers ERP integrators to accelerate implementation while clients that use CitiConnect® already have the integration necessary for SCF.

SCF will continue to offer attractive possibilities for corporates, their suppliers and the banks, such as Citi, that are able to reach supply chains that span the globe. However, all banks must continue to work to ensure that there is greater standardization, not just in documentation but also in onboarding procedures, for example, so that SCF becomes more robust and effective as a core payments and working capital tool for corporates.

SCF will continue to offer attractive possibilities for corporates, their suppliers and the banks, such as Citi, that are able to reach supply chains that span the globe.

Odette Izquierdo

Regional Liquidity Management Service Head, Latin America, Citi

LATIN AMERICA: AN EVOLVING TREASURY LANDSCAPE

Companies seeking to optimize their liquidity and effectively manage risk in Latin America have a wide range of tools and strategies that they can use, from simple options such as bank relationship rationalization to more complex solutions, such as re-invoicing centers that can help achieve cash optimization.

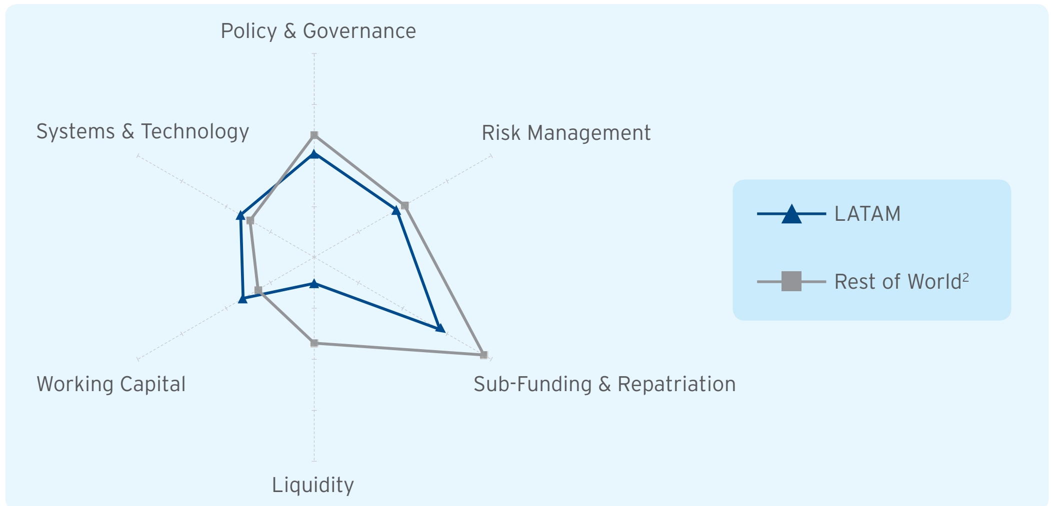
Slowing economic growth and increasing foreign exchange volatility in many countries in Latin America are prompting treasurers of corporates active in the region to seek to better manage risk and improve efficiency. While Latin America has a reputation – deserved in some instances – for high levels of regulation, there are opportunities to manage FX and other risks effectively and improve operational and liquidity management efficiency. Below are four key ways in which companies are seeking to achieve their liquidity management objectives against an evolving economic and regulatory backdrop.

Bank relationship and account rationalization

In the years since the 2008 financial crisis, many companies have re-evaluated their banking relationships. Historically, companies in Latin America have tended to accumulate additional banks as they entered new markets (either organically or through M&A). This makes it difficult to mobilize funds and results in fragmented visibility and information, connectivity challenges, problems with reconciliation, and multiple points of contact for relationship and customer service. Moreover, corporates' bank selection process has seldom been rigorous. Often if an existing relationship bank had an operation in a country where a company needed a partner, that bank was simply mandated.

The shock of the financial crisis, and the weakness of many banks in the years that followed, means that treasury is now intensely focused on the credit quality of its partner banks. The introduction of Basel III, which increases the amount of capital that banks must hold, and the Federal Reserve's Comprehensive Capital Analysis and Review, which evaluates the capital planning processes and

Figure 1: Comparative Level of Treasury Centralization[1]



[1] Data represents comparative level of performance across each key dimension of Citi Treasury Diagnostics, a proprietary, web-based benchmarking tool designed to assess the effectiveness of treasury and working capital practices and processes.

[2] The Rest of World is defined as NAM, EMEA, and APAC.

Source: Citi Treasury Diagnostics, 2015.

capital adequacy of the largest U.S.-based bank holding companies, have further highlighted differences between banks in terms of financial strength.

Corporates have responded by rationalizing the banks that they work with, usually by selecting a single regional partner bank and then choosing a local partner bank in markets where additional services are required (such as cash collection or employee services, for example). By working with a single regional partner bank, it is easier to automatically concentrate funds, centralize visibility (including through integration with ERP systems) and standardize payment processes (potentially opening up the possibility of centralization of payments in the future). Bank relationship consolidation (as well as account rationalization) may also help to reduce fees and streamline funding and control of multiple accounts. Partner banks and clients can work together to achieve benefits for all parties. Clients can leverage their regional and global relationships to increase their bargaining power, while banks can take advantage of opportunities in markets where liquidity is needed.

Fortunately, the drive by companies to concentrate their banking activity with a smaller group of banks comes at the same time as regulatory change – most obviously Basel III's Liquidity Coverage Ratio (LCR) – is

spurring banks to focus more on client selection and to increase the range of business they do with their chosen clients. The LCR distinguishes between different types of clients' assets in terms of capital requirements. Overall, it encourages banks to seek corporates' operational deposits (those that are linked to specific operational services) while making short-term excess relatively unattractive for banks. Latin American clients have to evaluate their short-term investment policies in order to enhance returns in this new environment, especially given the backdrop of slowing growth. It is therefore advantageous for both banks and corporates to optimize the "share of wallet" that is allocated to a bank.

Regional treasury centers

Companies across Latin America are increasingly seeking to aggregate regional balances and want to automate cash mobilization so that operational risk and frictional cash is reduced. Ideally, companies want to sweep credit and debit balances from source accounts into a nominated header account to achieve pre-specified targeted balances in all source accounts (often zero) on a regular basis. This way, liquidity can be optimized and surplus funds can be effectively invested. Self-funding between entities within the same group also considerably reduces interest and overdraft costs. In addition, a regional treasury center can take responsibility for FX management and other functions (including inter-company loans if they are used).

However, the diverse (and often restrictive) regulatory environment in Latin America, where each country has different rules and requirements, makes it challenging to implement a single regional treasury center for liquidity management.

Instead, corporates are increasingly establishing treasury centers to serve a cluster of markets, such as Peru, Chile and Uruguay, which have common characteristics or the necessary tax treaties to facilitate effective liquidity management. Similarly, economies with high levels of regulation can be clustered, with flexible investment policies implemented to accommodate high inflation risks, for example. This pragmatic approach to liquidity management takes into account the challenges and restrictions that exist in the region but still enables companies to achieve their broader regional treasury objectives and optimize efficiency. It also leaves open the possibility for further regional consolidation of treasury activities as regulations change.

Cash management efficiency

FX and other regulations in some countries in Latin America, such as Argentina and Venezuela, can make it difficult to move money easily, while in other countries, such as Brazil and Colombia, it is more difficult to move money automatically. These restrictions

Corporates are eager to manage FX volatility, which has increased for some Latin American currencies in the past year as the economic outlook has deteriorated.

make liquidity management challenging. Moreover, notional pooling, which offsets debit and credit balances in different locations, is infrequent within Latin America.

While intercompany loans could create tax implications, some corporates find that these are outweighed by the economic benefits from managing intra-affiliate group cash flow and reducing reliance on costly bank funding. Banks are constantly evolving their infrastructure to provide complex solutions that can help multinational corporates manage arm's length pricing and thin capitalization rules depending upon the jurisdiction of each participating affiliate.

Other possible solutions include re-invoicing, which is often managed from a center in Panama, Uruguay or from Europe. Companies implementing re-invoicing solutions to centrally and efficiently manage their commercial flows within the region (in order to improve operating efficiency) have found that re-invoicing can enable them to achieve cash optimization benefits even in restricted markets. For example, a corporate's commercial unit may purchase final goods from a manufacturing unit and manage the final sale to the end buyer, either a third-party customer or within the company. These transactions are carried out in the affiliate's local currency and therefore the commercial unit absorbs the FX exposure (in accordance with local transfer pricing rules). The group benefits from centralized management of intracompany flows and better forecasting of liquidity and FX exposure. This contract-manufacturing model (which is in accordance with local transfer pricing rules) is used effectively by cash rich companies to reduce the reliance of local affiliates on market funding.

Managing FX risk

Corporates are eager to manage FX volatility, which has increased for some Latin American currencies in the past year as the economic outlook has deteriorated. Hedging could be one option. However, hedging can be costly and many companies are taking a broader look at their operations and treasury to enable them to manage FX risks more holistically.

One option is to align receivables and payments in the same currency so that the company creates a natural hedge; another is to use U.S. dollars, when possible, as a functional currency. Alternatively, forecasting can be improved so that FX exposures at a local level can be matched at a global level, eliminating the need to use the spot market. Another possibility is the use of working capital financing loans, which have the potential to significantly limit the FX risk that

results from issuing a local currency purchase order when costs are in U.S. dollars. For example, where a U.S. manufacturer exports to Latin America, the local commercial unit would take a loan (in local currency) to cover the purchase order, and then convert it to U.S. dollars to pay back the U.S. parent. While this entails a borrowing cost for the local entity, in markets where currencies have fluctuated in value by five percent to ten percent, these costs may be worthwhile.

Working with the right partner

The uncertain economic environment in Latin America is increasing the need for companies to effectively manage their risks. Latin America remains complex in terms of FX and other regulations that impact liquidity management. However, solutions are available to meet many of the challenges facing companies that operate in the region.

For companies to achieve their liquidity management goals in Latin America, they need to work with a bank having solid experience and deep knowledge of local and regional conditions. Companies need to ensure that they choose to work with a regional partner that places Latin America at the heart of its strategy, as some global and multi-regional banks are scaling back their activity in the region. Regional knowledge should be combined with a global perspective and best-in-class solutions. This way, multinationals and multi-Latinas can ensure their treasury is as efficient as possible and that they are able to leverage structures, such as regional treasury centers and re-invoicing centers, and implement strategies to manage market risk effectively, while ensuring best-in-class standardization, visibility and cash forecasting.

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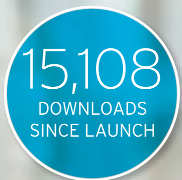

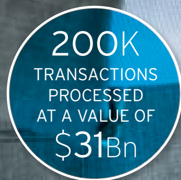

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