

Clearing the Fog

The State of Treasury and Payments Technology



Background

“Fog of War” is a phrase coined by a 19th century military commander describing the disorder that is part of all military contests. In the 21st century the contest among market participants in the treasury and payments space has also created a fog. A fog made thicker by financial crises, the payments revolution, strict regulatory regimes and cybersecurity fears.

This paper is based on a survey of market participants designed to yield a clear view of the treasury and payments technology marketplace. The survey was sponsored by Treasury Intelligence Solutions (tis.biz) and conducted by a team from Treasury Alliance Group (treasuryalliance.com). Experienced consultants interviewed representatives of corporations, banks and technology companies in the first quarter of 2019 using discussion guides developed for each business segment. The survey was global in scope with participants from Europe, the US, Latin America and Asia. Collectively there were more than 35 individual interviews which were supplemented by emailed responses and informal conversations from other contributors. The aggregation of the many respondent views and perspectives provided a unique picture of the market that is summarized in the following pages.

The paper is divided into four sections:

-  Major themes, the big ideas that will drive market behavior.
-  Corporate voice, pain points and the adaptive processes of end-users.
-  Anecdotal findings, other survey indications.
-  Path forward, implications for action.



Major Themes

Technology tools require skilled human drivers to be effective in corporate treasury. These professionals provide necessary direction for the application of tools and the establishment of expectations of the costs and benefits. Along with the careful choice of tool builders this priority is a defining characteristic of successful technology use in corporate treasury. Beyond this technology best practice, four major themes were uncovered by the survey and they are summarized below:

1 Evolution not revolution—This is a time of significant innovation in matters large and small, some of this innovation will become commercial reality but none will fundamentally transform the market. Several factors come together to create this reality.

- Treasurers are famously risk averse and most sit atop organizations that are underfunded, deprived of necessary IT resources with teams that do not have the deep technical skills to evaluate the new treasury and payments solutions.
- Treasuries sit within a complex web of interdependencies and absent a major driver such as a merger or systemic failure are unlikely to act.
- The exceptions to the above are big technology companies or more traditional businesses which must take some sort of action to survive.

Some of this is a generational issue but the net result is that there is no “killer app”. Innovation will be incremental, such as SWIFT gpi or other efforts with strong business cases targeted to address treasury pain points. Any transformational behavior that makes it through this reality will be driven by the businesses, not the treasury, such as some blockchain applications. Basic treasury transformation initiatives such as improving bank infrastructure, optimizing working capital and extending the ERP will continue to absorb human and financial resources.

2 The ecosystem survives, for now—Banks, SWIFT and spreadsheets have been joined by Treasury Management Systems (TMS) and will remain essential parts of the most basic treasury and payments ecosystem.

- Checks are in decline but are still a major payment method in certain countries and regions for reasons of float (India) and inertia (US).
- SWIFT is under threat and is late to the benefits of API but is addressing the problem through SWIFT gpi.

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- Banks are under corporate pressure to innovate and political pressure to maintain legacy solutions creating an expensive and revenue neutral environment for their shareholders. Their balance sheets and the culture of trust relative to newer participants will keep them relevant for a long time.
- The TMS space has congealed to a manageable number of participants offering marginally differentiated products. Marketing, financial viability and the yield expectations of equity holders will be the primary differentiating factors going forward.
- One finding relevant to the TMS space is the almost universal dislike and distrust of the sales practices, support models and pricing strategies of the incumbents by their customer base. This may create the opportunity for specialist providers in payments, FX and other areas to capture elements of TMS functionality.

There has been a dramatic increase in the past few years of awareness in the importance of technology in treasury and payments, particularly of the ways that technology can help in responding to regulatory, compliance and tax challenges.

3 **Payments are a commodity**—This reality will drive how banks manage and price integrated offerings such as liquidity management and account services. Bank balance sheets rich in consumer deposits will enable further competitive differentiation as Basel III is fully implemented.

- The ability to bundle products such as accelerated value dating of payments from operational banks to a pooling bank is an example of this benefit.
- At the periphery, low cost APIs are a threat to the ad valorem revenue model of the card providers. APIs, RTP and alternative payment channels will put further pricing stress on basic payment solutions such as wire and ACH.
- There are also more options around what is important to participants. Are you willing to pay extra to get money more quickly? If so, the payment will cost more.
- Innovation in payments is most visible in consumer facing businesses and these businesses will need to deal with the challenge of multiple payment rails. The insurance industry is interested in quick payment of claims while utilities are interested in quick receipt of money.

Many business processes are moving to real-time and this drives stakeholder expectations of the corporate treasurer. Payment on demand and fulfillment on demand require that treasury adopt new business practices.

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4 Data is value—The value of data can be unlocked by technology and treasurers but exists in pockets of value across multiple business functions and systems. Treasuries need help aggregating and integrating the pockets. Big data and artificial intelligence will improve treasury processes ranging from cash forecasting to cash application and sanctions screening. Can the organization integrate the TMS with the CRM for deeper insights on customers? Can a robot pick up on the fact that customer A now pays in 45 days despite 30-day terms? Getting to this point will take some work because as one respondent observed, organizations are data rich and insight poor. Two things will need to happen to change this:

- Relevant organizational data will need to be concentrated to a single source of truth, for example forecasting cash bank portal by bank portal is not a recipe for success.
- The treasury organization—or selected vendor—will need to be able to offer actionable insights from this data. Vendors that can leverage the network or community effects of their entire client base will be in a position to offer unique insights not available to the stand-alone treasury. These can range from faster action on changes in connection parameters to payment validation, more effective sanctions screening and detecting stale controls—improved decision making.

Generational attitudes are an unpredictable factor in all of this. One frustrated FinTech innovator observed that treasurers of large companies are older and challenged in the use of basic technology tools. Less glibly, transformations in the consumer space are driving client expectations, particularly among younger treasury staffers. The ability to move money with a mobile phone or access a holistic picture of net worth through an API make token validated payments from a dedicated personal computer seem hopelessly out of date. In addition to generational attitudes there are also cultural attitudes—there is a huge gap in market practice between Latin America and Asia. This makes global standardization more difficult in a regulatory environment where it has never been more important.

The major themes outlined above were distilled from all survey respondents; corporate users, technology vendors and banks. These three stakeholder groups have—or should have—a focus on the corporate market, the ultimate consumers of treasury and payments technology. The pain points and adaptations of this group are described in the following section.

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Corporate Voice

Pain

Our survey identified frustration from corporate users on a variety of issues. Of the many complaints that surfaced four have implications for the market due to their almost universal mention by the corporates surveyed and their implications for banks and technology firms.

- 1 Data**—Gathering the data required to support good decisions and treasury action was a major pain point among corporate participants. Cash and investment balances reside in multiple systems with multiple partners whose interests are not always fully aligned with those of their clients. Internally there are the inefficiencies that result from many ERP systems with non-standard interfaces. There are connectivity models that address this challenge in theory but cost, complexity and time to implement make them impractical to fully scale. The pain does not end here as once the information is gathered and the decision made it can be equally difficult to act on those decisions. Fundamentally while decision making can be centralized or localized there need to be centers of information that can be accessed in consistent ways.

Maintaining accurate and compliant data on customers and vendors is a major challenge. There is the obvious, and consequential, matter of GDPR. There are equally important challenges of keeping bank accounts up to date, managing addresses and adapting to card expirations. One respondent was trying to push as much activity as possible to company/third-party vendor portals where the end-user can ensure prompt payment by entering correct payment details or settle their account quickly and inexpensively at the latest possible moment, with no company maintenance required. Another respondent took the opposite tack and created a portal for their customers. Data accuracy and protection will become more important as privacy concerns originating in Europe will at some point spread to other parts of the world.



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2 **Bank Portals**—The care and effort that banks put into their eBank/portals is not returned to them in the form of universal client appreciation. When more than two or three banks are used by the corporate treasury simple problems and administrative burdens emerge.

- It can be difficult to keep up with the functionality offered and where it is located within each bank's portal.
- Developing a common standard for user profiles is difficult. Users know what permissions they want to assign to classes of users but are often unsure if they have achieved this objective in a portal, a major selling point for the standardization offered by a TMS.
- Finally, there are the security tokens that must be used—and replaced when lost, requested for new users and updated from time to time.

Portals do serve a valuable purpose for smaller users looking for news and ideas or to consolidate data from a small group of banks—manually or otherwise. They remain necessary for business continuity and other specialized purposes such as monitoring for receipts and those that enable complete self-service by end users will be more popular than those that don't.

3 **TMS**—The requirement for a TMS is recognized by many but vendors came in for plenty of criticism. Issues noted by corporate respondents were aggressive sales tactics, poor client support, high cost, inadequate functionality, limited flexibility and the time, discipline and focus required to effectively implement. This also includes the need for too much manual intervention. One respondent was frustrated that their vendor had never carefully analyzed how their system would be used and what information was gathered was not passed on to the unaffiliated business partner the TMS vendor recommended for the implementation.

Another respondent addressed these issues with a robust selection process that ensured alignment between the vendor product and services and the company's requirements. Others supplement this process through careful negotiation—involving their procurement partners who have greater experience with software acquisition. A TMS is difficult and time consuming to replace and so in the near term TMS vendors have little incentive to act. There is probably an opportunity for specialist providers to hive off functionality of the TMS through superior service. But the TMS remains an important part of the treasury toolkit, most respondents—corporate and bank—agreed that as company sales moved past \$1bn globally and the number of banks moved beyond 3-5 the use of a TMS was virtually mandatory.

4 **Regulation**—There is a global requirement for banks to “know their customer” but multiple regulatory standards for what this means and a further multiplicity of interpretations by banks as to how to ensure compliance. Adding insult to injury is the need for many corporates to rely on local staff or third-party providers to complete the task, neither of whom has the deep understanding of the corporate organization that this task can require. The result is lengthy delays in opening bank accounts or otherwise conducting business. One approach is a common legal entity identification system, essentially a digital Doomsday Book. The fundamental problem is well suited to other technology approaches, but none has yet emerged to address this pain point, despite the hopes of some blockchain advocates. And as a number of respondents noted, this is a bigger topic than just KYC including regulatory reporting such as FBAR to name just one.

Adaptation

Corporate treasurers are a resourceful group used to making the most of limited resources. Several respondents cited circumstances of “when your back is against the wall” that triggered the need to experiment with tools to get the job done, failure was not an option. Following are examples of the simple and effective solutions they have developed.

- 1 **Fraud**—Fraud has technical and human elements. Most corporates leverage internal IT departments and their banks for seminars and specific systems review. The human element—social engineering—was identified as the bigger risk by corporates, banks and technology vendors. One respondent brought in representatives from the FBI to assist with security reviews and conduct training for employees in Accounts Payable. Another cited their open corporate culture which, when combined with training on business email compromise, made them feel comfortable asking the CEO if a money transfer out of the usual was truly their intention. One of the few technical solutions offered came from a corporate deploying a centralized payment system that allowed for “six eyes” on payments with the approach catching fraudulent payments.
- 2 **Cybercrime**—Basic housekeeping is not enough. In a world of APIs and instant payments, control, compliance and fraud prevention require a mix of policy, training and technology. A database that provides an always current single source of truth is a solution that was adopted by some. One respondent noted that truth extends beyond what is in the ERP and must include bank connectivity, users and payment formatting. Development of clear policies regarding payments, bank account maintenance and the achievement of a clean audit were also cited. Finally training of front-line staff helps improve the awareness of risk and create a culture of compliance. The central points here are that company systems are under attack by cybercriminals and must conform to the demands of politicians expressed through regulatory action. This mix of hard and soft costs is difficult to quantify, and frustrating because the benefits are most valuable at the highest level of the organization.
- 3 **Tips and Tricks**—Respondents identified a number of ideas that range in value from good idea to best practice.
 - In a SaaS world customization of the ERP, or customization in general, is a losing game because frequent updates negate the customization.
 - For subscription-based products and services APIs can be easier to manage than cards which require expiration date management tools.
 - Corporate users must be able to distinguish between proof of concept and production when evaluating FinTech through due diligence.
 - Treasuries should not be performing production-type tasks. These repetitive and definable tasks should be the responsibility of shared service centers.
 - Human talent will never go out of style; hire the best people and retain them through rotational assignments and opportunities for development and advancement. Two respondents noted that they look for a match between temperament and adaptability to the business culture.
 - Recognize the importance of timely research and testing of emerging technologies such as AI, RPA and blockchain.
 - Leveraging ISO 20022 pays dividends in many areas.

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Anecdotal Findings

- Cybersecurity was a point of concern for all participants, not just treasurers, who noted the importance of the human element in prevention, especially relating to social engineering. Corporates addressed this through payment and banking policies along with delegations of authority. Corporate IT departments were identified as resources but resources with little understanding of treasury activities and business requirements. Responding banks sponsored security seminars and would work with individual clients on a case by case basis. One bank respondent observed that a security culture is a competitive advantage for banks and that some banks may even disengage from clients with unresolved security issues. All noted that it's an asymmetric problem, criminals need to get lucky once while prospective victims have to be right all the time. On the lighter side one Brazilian CFO reported an attempted business email compromise where the purported message from the CEO was in Spanish, criminal but not very intelligent.
- Regulatory compliance was an issue for large multinational respondents very much aware that their size and scope make them attractive targets for ethically questionable business partners and for eager regulators, particularly those located outside the MNC's home country. This makes them cautious about new solutions and vendors. Surprisingly, the country domicile of cloud delivered solutions was not mentioned as an issue.
- Spreadsheets—again—were valued for their flexibility, low upfront cost and ability to adapt precisely to each business process. They were embraced by some respondents, tolerated by others but only one respondent reported any initiatives to eliminate spreadsheets in treasury. One large entity obtained IT resources to create extracts from their ERP for modelling in Excel. The same entity was also working to deploy robots to populate spreadsheets used for forecasting and other purposes. The popularity of Excel endures even in companies using a robust TMS.
- SWIFT offers ubiquity for banks and corporates and is therefore a standard for corporate treasuries, despite its costs and relative lack of innovation. This is partially mitigated by SWIFT gpi which addresses a major corporate pain point—the speed and transparency of cross-border payments. However, for SWIFT gpi to be effective it must be adopted by all participants. It remains to be seen if regional and indigenous banks will see the benefit to their business model of implementing SWIFT gpi. A sweeping generalization offered by several respondents is that SWIFT gpi will be relevant in the short-term, there will be market confusion in the medium term and APIs will dominate in the long-term. A bank respondent offered that SWIFT service bureaus have the potential to be true message brokers when they include APIs and will be able to build out powerful dashboards and analytics.

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- It is very difficult for corporate treasuries to get funding for treasury technology projects so a FinTech innovation costing \$150,000 is likely to receive a better reception than a \$1.5 million transformation project. This ignores both risk and potential return but is an opportunity for nimble providers with a clear value proposition and simple implementation path to enter the market. This is a two-way challenge, FinTechs must articulate the solution without swamping non-technical purchasers with information they cannot process, and corporates must be willing to engage in more than superficial due diligence.
- Corporate respondents were in most cases not driving any blockchain initiatives but are participating in business-led projects built around time and contract management, both of which have downstream implications for treasury through payments. In general, corporate users have great interest in streamlining intercompany processes/ transactions as well as addressing issues in the payments space—such as the auto matching of cash receipts where blockchain offers potential. But the reality is that so far there is more smoke than fire, it may be several years before blockchain applications are in widespread treasury use.
- The larger corporate respondents placed a great deal of value on having solutions that work in as many of their business environments as possible. “Will it work in Nigeria or Hungary” is a litmus test used by some to ensure that all relevant details have been incorporated into the solution. One Brazilian treasurer has deployed a sophisticated system to match health insurance claim payments with the explanation of benefit (EOB) while another LatAm finance officer re-keys information from the ERP into a bank portal to make payments. Meanwhile Asian financial institutions offer a number of innovative and sophisticated ideas which would be difficult to implement in Europe and virtually impossible in Latin America. Change is going to be a long and slow process.
- Bank connectivity continues to be a problem for corporate users and is one not completely solved by SWIFT. It is made simpler for those using large network banks but is not perfect. This is an area being addressed by some technology vendors offering rapid—and inexpensive—connectivity through a combination of EBICS, direct connection and SWIFT.
- Robotics and Artificial Intelligence are important concepts—and buzzwords. Setting up either one has proven to be painful for the corporate participants surveyed with some experiencing reality that does not match the hype. Effort involves coding, systems interfaces and developing confidence in the results. Simple applications include releasing orders, automated correspondence and reporting cash balances. More sophisticated applications include payment file analysis and sanctions screening.
- Bank and technology respondents expressed the view that many corporate practitioners have a limited understanding of technologies that will impact them in the near term such as API and in the longer term such as blockchain. Expressed differently, the benefit of real-time liquidity management is easily understood but the fact that faster adoption of APIs can make this possible is not. Other issues in technology include the lack of standards for APIs and potential processing volume issues. Banks are seen as a good sounding board for technology information as are contacts within local treasury associations.



Path Forward

In looking to the path forward one cautious respondent noted that change for the sake of change is not necessarily a good thing. Given scarce resources and significant challenges the most important first thought is to know what is happening with the business and how treasury can be of value in helping the business. This simplifies the project queue considerably and helps establish the business case for change.

In projecting the path forward from the survey findings, it is clear that the role of the treasury is changing. Changing from that of a financial function that manages a group of financial processes such as payments to one that provides strategic support to the business. The analysis and decision support that treasury will provide will be enabled by a solid infrastructure of technology and business processes.

Following are some guidelines for how best to manage the technology that will be part of this transition:

- Consistency is good but not to the point where it becomes foolish. Reducing the number of systems and banks used by treasury needs to be balanced with the gain of efficiency that comes from the use of specialized systems and capabilities of local banks. The survey clearly demonstrated that not all treasury functionality should, or can be, managed through a TMS, that other systems were sometimes the best way of managing payments and other needs.
- Agility and innovation are necessary but not sufficient. The full value proposition of any treasury technology needs to include the security and financial viability of the vendors, their products and their services—including those developed in-house. In this area treasury teams must develop the necessary technology literacy and skepticism to distinguish between a viable trend and flash.
- There are too many problems, solutions and vendors for any treasury to realistically assess without additional help, within the company or from external resources. Relationships and partnering take time to cultivate and manage but done properly extend the ability of treasury to support the business.

The future is unknown, to paraphrase Socrates “we don’t know what we don’t know”. To be successful in treasury we need to know and trust that our processes and procedures will minimize risk and maximize opportunity.



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