

SUMMER 2015

Treasury Update

Newsletter



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Mission Statement:
Treasury Update, a resource for Treasury professionals, is published bi-annually to raise awareness of key Treasury items, issues, and events; assist with tactics and strategies; and enable Treasurers and their organizations to be more resilient, effective, thoughtful and efficient.

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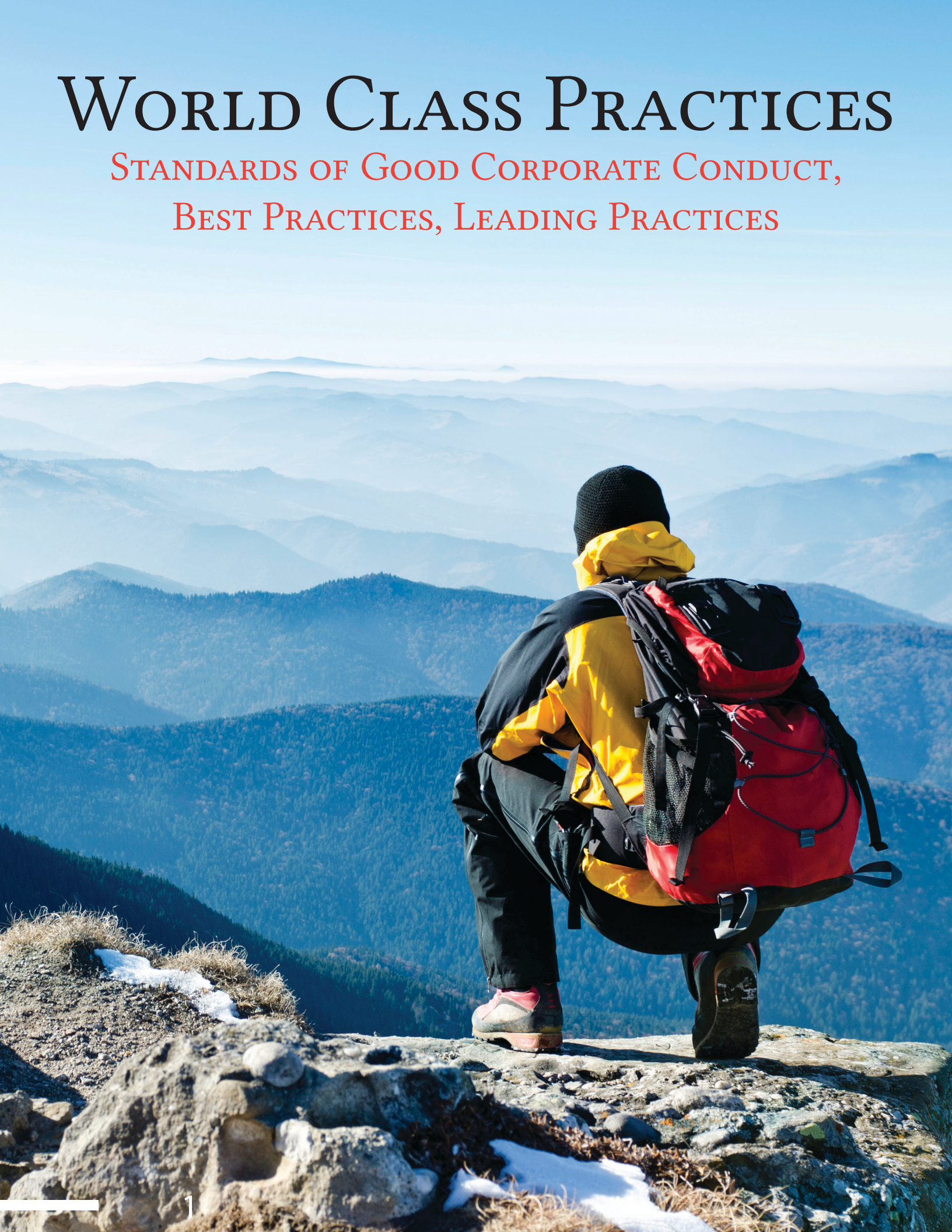
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WORLD CLASS PRACTICES

STANDARDS OF GOOD CORPORATE CONDUCT, BEST PRACTICES, LEADING PRACTICES



*“Good, better, best.
Never let it rest.
Until your good is
better. And, your
better best”.*
ST. JEROME

“The Best” sounds so much better than mediocre, good, or good enough. It is easy enough to ask someone what the best practice is for investment policies. For payment technology. For hedge pre-trade analytics. For compliance. For almost anything. There is, to some extent, the view that there is one answer that will be what we need to do, or attain, to achieve this level of performance or results.

This article is meant to provide some of the conceptual structures around standards of practice that should be useful in any environment or organization. It is also intended to help mature the thinking and practices of how your organization intentionally employs leading practices or world class practices in various areas of your finance organization. How we think about standards and what standards we set for our organizations need to be clear. A discussion of several terms related to practices are more appropriate and far more helpful for treasury groups as they seek to achieve ongoing excellence.

TERMS

Let us further this discussion by defining terms and phrases. These definitions and assumptions will form the basis of our discussion points. We’ll cover four primary terms and show that only two different definitions are relevant.

- **BEST PRACTICE** | As we indicated in the opening paragraph, the predominant use of the phrase ‘best practice’ is meant to describe the one-size fits all definition. If

you want to do something that is the best practice, here is how it needs to be done. This wouldn’t really vary between organizations of \$100mm or \$10B in sales size. The practice would be the same if you were sending 10 wires a month or 10,000 electronic payments. This definition, as it most commonly applied, lacks a level of calibration.

- **LEADING PRACTICE** | This is a term that can calibrate. It answers the question ‘what should we be doing to be a leader?’ It necessarily has a realistic bent and adapts based upon the organizational size, level of demand and risk tolerance. It takes into account these differences.
- **WORLD CLASS** | This term is most frequently applied to the largest or most treasury-intensive organizations. It refers to taking a leadership position among those with the highest level of standards and the most pressing of demands. World Class would be a leading practice for large and/or treasury intensive organizations.
- **STANDARD OF GOOD CORPORATE CONDUCT** | If we consider conduct and practices across a continuum from the minimum level of conduct to the highest level of care or attention, we can both note and name some important points on this continuum. The Standard of Good Corporate Conduct (SGCC) represents the minimum level of care or conduct that most organizations (from small to mid-size organizations up) should maintain. This level of care is generally constant across most industries with some exceptions. Certain treasury intensive organizations may have higher minimum standards for particular areas or practices than others (i.e. a bank would have a higher SGCC level of cyber security

than a distributor of plumbing equipment).

- **BIGGER IS ALWAYS BETTER** | When some people hear the phrase ‘best practices’ they think ‘list’. And, a bigger list is better than a smaller list. This morphs into a list of 1300 items that need to be reviewed with their client. Preferably on an item by item basis. This ignores industry differences and makes it very hard to focus on the elements or items that should be emphasized. Too much is lost in the detail with this approach.
- **APPLIED TO ALL** | Best practices sounds like, “everyone should do it” - especially if it really is the best. This can become unintentionally manipulative and inappropriate. Is lockbox a best practice? For this type of firm, at this size? With these alternatives available? This type of misuse avoids the necessary work of applying various practices to a particular firm and situation.
- **END OF THOUGHTFUL DISCUSSION** | This is a best practice, therefore your process or practice is not. Determining what is appropriate for an organization requires some analysis and current experience.

OPERATING PRINCIPLES OF THE LEADING PRACTICES VIEW

There are three key premises vital to the overall arguments we are making in this article. They include the following items, initially identified separately, and then embedded in the discussion that follows:

- **CALIBRATION** | Calibration of standards or practices should be assumed. That is, differences in standards should exist between organizations that have substantially different size, industry characteristics and operational needs. An organization with spe-

cific regulatory oversight of their industry will need a different level of compliance attention than another in a less regulated industry in those areas.

- **RANGE OF STANDARDS** | For any company there are a range of practices from excellence, to the minimum, to those below a level of care that should be tolerated. We refer to the minimum level as the Standard of Good Corporate Conduct.
- **ONGOING CHANGE** | Standards will need to change over time to reflect new expectations, a more volatile operating environment, or other external and internal demands. Adaptations are required at different times. Think of the changed compliance requirements around security of card data several years ago to after the series of significant cyber-breaches at some retailers and a major healthcare provider.

The graphic shows three separate companies. The first two companies have the same minimum level (Standard of Good Corporate Conduct) which is relevant to the general business population. Also, you will note that they have a different level for a higher standard that would represent a leading practice. These differences are reflective of their varying complexity, industry, size and scale.

The same graphic has a third company that has a different minimum and top category. The minimum level is higher as this company finds themselves in a specialized and perhaps more highly regulated industry creating an elevated standard that would reflect good corporate conduct. For the leading practice level in this industry, it is also noticeably higher than for other firms. This categorization is also paired with

the World-Class Practice moniker as it represents the highest standard across all industry categories. (figure one)

FIGURE ONE

Standards of Good Corporate Conduct, Leading Practices

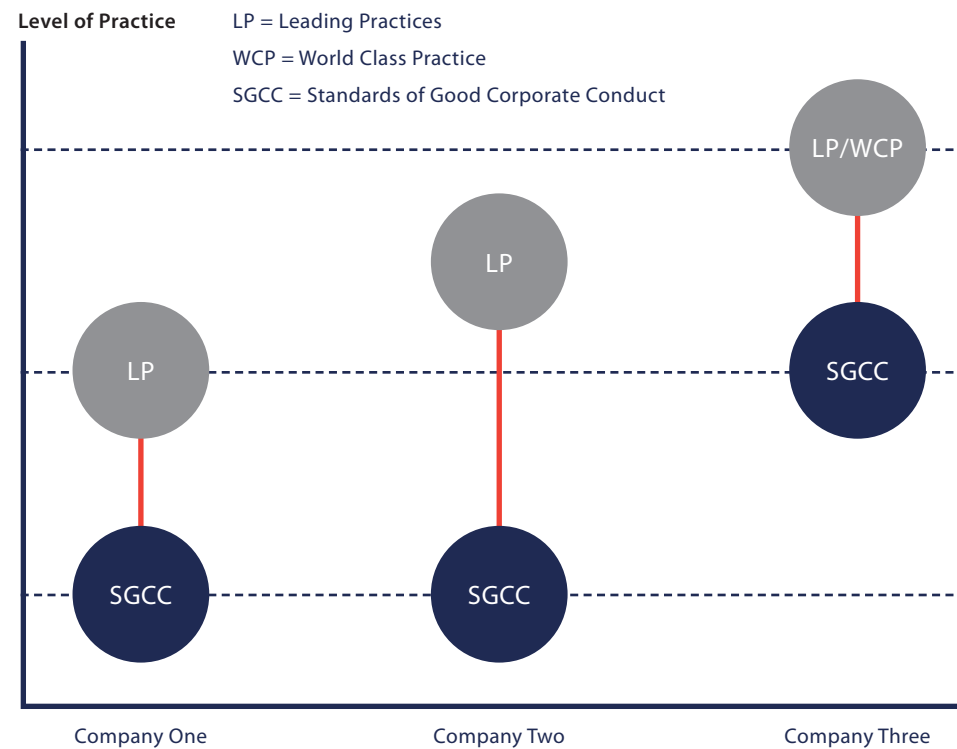


FIGURE TWO

The Changing Level of Practice

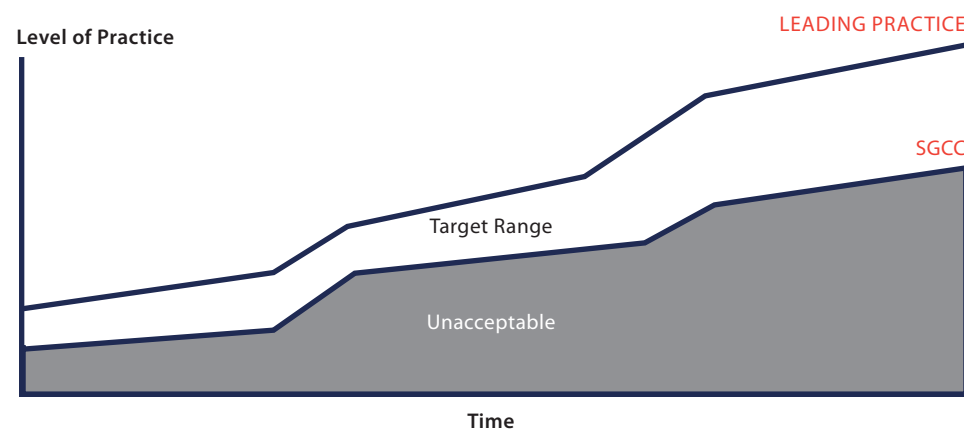


FIGURE THREE

	Middle Market Company \$250mm-\$1B	Major Multi-National \$10B+
World Class Practice	<ul style="list-style-type: none"> • Same as Major Multi-National 	<ul style="list-style-type: none"> • Automated matching on a near real-time basis and reconciliation of all bank accounts on a daily basis according to policy. • Direct feeds of data from source systems. • Fully Automated case management with escalation protocols by account, amount and type of situation.
Leading Practice	<ul style="list-style-type: none"> • Automated Reconciliation of all bank accounts on <i>at least a monthly basis</i> according to policy. • Direct feeds of data from source systems. 	<ul style="list-style-type: none"> • Automated Reconciliation of all bank accounts on a <i>daily basis</i> according to policy. • Direct feeds of data from source systems.
Standards of Good Corporate Conduct	<ul style="list-style-type: none"> • Monthly reconciliation of all bank accounts according to a clearly defined bank reconciliation policy that specifies timing issues, timeframes and documentation. 	<ul style="list-style-type: none"> • Monthly reconciliation of all bank accounts according to a clearly defined bank reconciliation policy that specifies timing issues, timeframes and documentation.

The next graphic shows a progression of leading practices and the standards of good corporate conduct. This is meant to help demonstrate that standards shift over time. And, the changes in expectations or level of care is almost always upwards. A company will typically seek to target their performance within the band between SGCC and Leading Practice. Falling below the SGCC represents an unacceptable level of performance. This might be a lack of adequate care, improper controls or an inefficient process or workflow. Achieving above the leading practice mark, unintentionally, may represent excessive or burdensome costs. (figure two)

AN EXAMPLE USING BANK ACCOUNTS
There are so many examples we could use to illustrate a few of these points. So, let's be the slightest bit provocative. We'll look at an element of bank account management (BAM) and start with an accounting view.

ACCOUNTING WORLD
The accounting world would say, perhaps not in these words, that the Standard for Good Corporate Conduct would require that all bank accounts be reconciled on a monthly basis. Depending upon the type of account, and the type of accountant, they may recommend a reconciliation to happen on a daily basis. If they were to define the leading practice, it may include

'automated reconciliation' with 'case management'. This means that the transactions from the book side and the bank side would be fed into a system that would match them up automatically. Differences would be identified and routed to the proper area and person to resolve. These would be cases and there would be timeframes for resolution and escalation assigned to them.

Some organizations have extremely high volumes of transactions or transactions that need to be reconciled quickly to ensure that settlement occurs in a matter of minutes not days. And, certainly not after the month ends.

The variations of volume, exposure level and sensitively to timeliness can all differ according to a variety of factors which could impact where we would calibrate the practice to achieve either the minimum level of reconciliation or the leading practice level. For a simplified example: (figure three)

Someone could challenge the Standard of Good Corporate conduct (monthly reconciliations) with a comment such as “we have to do a cost-benefit analysis on whether it is worth doing a monthly reconciliation on all accounts”. The typical accountant, if confronted in this way, would respond that they have to reconcile all bank accounts each month. They might even be offended that someone thought this was raised as an issue subject to a cost-benefit calculation. And, they would be correct. Bank reconciliation is a minimal standard for control of cash accounts. It is a cost of doing business. Yes, you should try to find more affordable ways of completing this task, but the task must be done.

TREASURY WORLD

The treasury world would say, perhaps not in these words, that the Standard for Good Corporate Conduct would require that all bank accounts be visible on a daily basis. That is, we have their information (i.e. balances and transactions) available on at least a daily basis. For some types of companies the leading practice would be to have this information reported automatically on a prior day basis and for certain accounts to have this information also reported on a current day basis. We have not reduced these differences into a nice matrix, but the careful reader should understand the key points of difference between what the minimum, or standard of good corporate conduct, and the leading practice might entail.

Someone, perhaps from the controller’s group, could challenge the Standard of Good Corporate conduct (daily information reporting for all bank accounts that cover operational funds) with a comment such as “we have to do a cost-benefit analysis on whether it is worth paying for information to be provided on a daily basis for all operating accounts”. The typical treasury person, if confronted in this way would respond “yes, we’ll put something together for this”. Thus, the entire battle could be lost by misunderstanding the type of minimum standard they need to adhere to. Instead, they may choose to make a show that they are offended that someone thought this was an issue subject to a cost-benefit calculation. They would point out that every bank account represents a point of exposure to the most liquid of assets. And, that having a bank account requires having visibility to that account. It is a cost of business. If you don’t need visibility to an operating account, the account is not needed.

SUMMARY

If applied to corporate treasury practices, the ‘good, better, best’ quote would have a rough correlation to ‘standards of good corporate practice, leading practices and world-class practices’. Certainly, it is not difficult to understand that there are trade-offs between any standard you select. And, by understanding that the standards can differ between organizations based upon a variety of factors, treasury will be equipped with the right framework to target the level of their practices appropriately and intentionally. ■ (figure four)

FIGURE FOUR

Corporate Treasury Term to Describe the Practice

GOOD	Standards of Good Corporate Conduct
BETTER	Leading Practice
BEST	World-Class Practice



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Going Global

Part Two

What to Anticipate When Entering Into a New Country

During the first part of the Going Global series we talked about a few different challenging aspects of taking a company into a new territory either by acquisition or organic growth. For instance, you may encounter different types of banking partners and by choosing a strategic long-term partner, banking abroad is made easier in the long run. Also, taking a little time upfront to research the cultural and communication differences will also prevent many misgivings and save you headaches while trying to implement treasury services.

As we continue our discussion on establishing treasury requirements in new markets you will see it requires a knowledge and sensitivity to each nation's individual finance and banking customs and regulations. When businesses expand globally, treasury departments are tasked with discovering and managing the unique challenges of each country.

CREDIT

One of these challenges is establishing credit in local environments as there are variations to the interest rates for credit facilities. Some banks use published rates that are readily accessible while others are unclear. Validating the bank rate can be difficult if the rates are not published. If the bank uses an internally calculated rate, it typically is not published. The bank rates will change sporadically and are not typically accompanied with proactive notification to the customer. The internal rates may be based on some version of LIBOR or other common rate, but the bank may not provide the formula and rather provide a total all-in-rate when requested.

Companies should consider establishing credit with a global bank instead of a local bank. These banks can provide credit to multiple countries domestically or cross border. Every company

has differing needs and should determine which option best suits their requirements.

As credit needs are refined, it is also good to establish the rate, calculation, payment option, form of rate communication and any covenant requirement during negotiation. This will assist companies with managing and tracking accrued interest and produce any reports requirements in advance.

ACCOUNT OPENING

The process of opening bank accounts in a new country is often a tedious process. Banks frequently present forms one by one, rather than all at once. And when a company is new to the country, they take extra steps to validate that company, its financial standing, and the authorized signatories. It is important to develop good banking relationships to ease the pains that accompany account openings

and service implementations, especially when corporate treasury personnel are unfamiliar with their local bank relationship team.

The documentation necessary to open accounts is similar across banks, but be prepared when entering into a new country as additional documentation is a standard requirement. These additional documents are similar to the "know your customer" questionnaires in the U.S. with extra measures to validate the company, directors, and authorized signatories.

Frequently, a complete new set of documents are required for every new account when working with a foreign bank, but this is not always the case.

For instance, a global bank in the Philippines only requires an electronic letter to open accounts for the same entity where accounts already existed.

As you open accounts, it is good to plan ahead how many accounts will be required per entity to prevent this duplication of paperwork, unless you enjoy filling out forms. As always, it is good to ask upfront what the requirements are for opening additional bank accounts for future needs.

International banks often provide documents individually instead of bundled all at once. Treasury submits initial forms, and then the banks send another form. Such business customs can cause delays when trying to implement services overseas. Managers have to account for these types of setbacks and change their expectations accordingly.

When it comes to documenting signers, banks in some countries are very straightforward and ask for a signature card, a passport, and/or a utility bill to validate the signer's identity. In other

countries, banks require a detailed and cumbersome validation of signers on a company's account, requesting letters from either a notary or an attorney confirming the signer's identity.

As signers are selected, it is important to remember that any U.S. signers on foreign bank accounts, as well as those on the account mandate or resolution, and anyone with any type of wire transaction authority must be reported as signers under the U.S. government's Foreign Bank Account Report (FBAR) requirements.

BANK FEES

Bank transaction fees for overseas bank accounts are challenging to monitor and track. The majority of international banks charge fees by transaction at the time the transaction occurs, unlike in the U.S. where companies get a monthly analysis statement of fees electronically by file or by

invoice. A bank analysis file can then be used within a software system that automatically tracks and verifies that the prices charged match their contract price. However, the challenge with international banks is how they charge. They either net fees — for an incoming wire, the bank deducts the fee from the wire amount and notes that in the transaction details — or they will debit the fee as a separate transaction. So a company's treasury department can only validate fees as they occur, rather than once a month in a consolidated fashion. This process is cumbersome and highly manual. Larger international banks are beginning to move toward compliance with the initiative to offer international analysis files for bank fees. However, this will not have 100% compliance with local banks globally, and companies will continue to have challenges in this area.

There are pros and cons to requiring a daily bank fee check. In the U.S., a monthly analysis statement is provided and it requires the treasury group to validate not only the price of a specific line item, but the volume of transactions as well. Today, this can be a very inefficient verification process with transaction volumes. However, some treasury management systems are beginning to offer transaction counts which will assist this validation process. For international accounts it can be easier to validate the count on a daily basis if you do not have a system with the ability to provide transaction counts. But, the process accompanying multiple daily debits for fees creates extra accounting entries for each fee paid vs. a one-time charge with monthly analysis. Moreover, the company does not receive earnings credit on its account balances, which eliminates the tax advantage that the earnings credit provides in the U.S.

FUNDS MOVEMENT

Funding of Subsidiaries

When a company opens a start-up subsidiary in a new country, it has to consider how to fund the unit so that it can meet general operating expenses. In some countries, including China and India, companies must get approval to fund their entity, and that funding process requires regulatory documentation.

One of the options for funding an entity is using a transfer pricing model also known as a cost-plus model. The company can use a study by an independent auditor or tax adviser, which will determine the acceptable percentage to use for a transfer pricing model as compared to a similar industry in the local market.

In this model, subsidiaries bill the parent for their operating costs plus a percentage markup. Each entity generates invoices for these costs and the parent pays the invoices, which makes it easier to fund the subsidiary. When required, the invoice can be submitted to the central authority which allows the bank to verify that the incoming wire transfer from the parent was appropriately documented.

As the subsidiary becomes profitable, re-evaluate the transfer pricing model and change it accordingly. Reviewing the model on a regular basis is necessary to avoid over-funding and having cash trapped in a country where funds are not easily transferred back to the parent without additional fees and tax withholdings. The overall process should involve Treasury, Tax and Accounting, at a minimum. Once the entity can sustain itself, the process of repatriation begins and the integral parties will already be involved for this change in process.

REPATRIATION OF FUNDS

Once an overseas subsidiary starts showing a profit, the treasury and tax departments face the challenge of repatriating funds to the parent. Moving funds out of a country generally incurs taxes, so Tax and Treasury need to work together to achieve the best solution.

The biggest issue is determining the underlying costs associated with repatriating excess funds, such as taxes, and deciding when and if it makes sense to repatriate. Repatriation makes treasury a critical partner to tax and to the company's bottom line. Companies should determine if it is optimal to send the funds back to the U.S. parent or if the company could make better use of the funds by reinvesting in the local country to expand the business organically or by acquisition. Another option is to build support systems within the subsidiary's region, such as a service center.

Treasury staff often complain about China's funds movement regulations, but China's regulations are actually stable which makes management and expectations predictable. Establishing business in more developing countries without a stable environment results in constantly changing regulations. This makes treasury management more difficult as they must monitor regulations changes and the related requirements. Therefore, it is very important to have reliable banking partners that will be proactive in informing and assisting companies with any regulatory changes.

While global expansion is rarely easy, it can be exciting. Preparing for the pitfalls and barriers a treasury department could face will allow your company to prosper in its new region. Gaining the knowledge necessary to address the challenges of expanding into new countries is invaluable. ■

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FBAR SURVEY RESULTS AND ANALYSIS

Beginning in 2014, Strategic Treasurer started an annual compliance survey which covered the Foreign Bank Account Reporting (FBAR) and bank account management practices, status and perception.

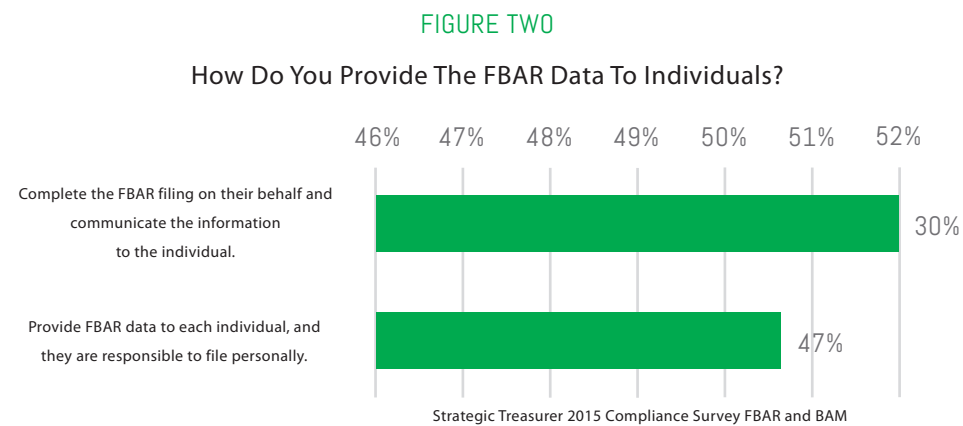
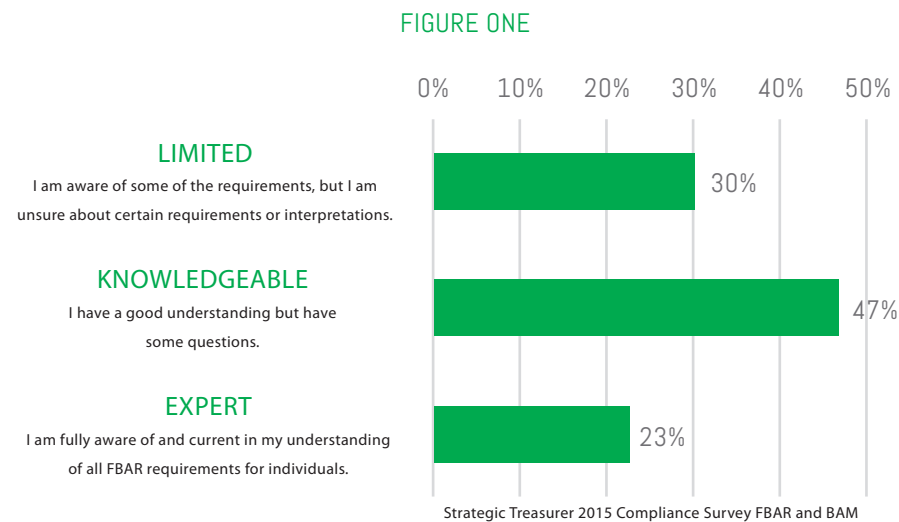
THE NEW BLACK

Responses to this year's survey were up substantially from the previous year's survey. For those who like percentages, in 60% of the time we had an increased response of over 20%, allowing us to close the survey in a shortened window. This past year, we have found interest in compliance generally, and FBAR specifically, to be at an extremely high level. Perhaps compliance is the new black.

FBAR KNOWLEDGE

While compliance has become more popular, this popularity is not an indicator that it is well understood. FBAR rules have been around for a long time. The individual filing requirements (corporate signers without a financial interest) are relatively new. They started in 2010, so they are well past the normal teething stage. However, full awareness of the requirements on a self-reported basis shows 3 in 10 survey respondents (who ostensibly have a big interest in FBAR) view their knowledge as limited. Less than a quarter rate themselves as an expert. (figure one)

Given the additional time that FinCEN has provided to file past years, we understand these numbers in light of procrastination. Why learn all of the FBAR requirements when you can put it off to 2016? Of course, if the firm doesn't understand all of the requirements, it may be extremely hard or even impossible to fully comply if you are not capturing all of the information you need. For example, if you have people who enter wire transfers in the bank portal (but who can't ap-



prove wires), and you don't consider them signers and therefore don't record this information, how easy will it be to go back to 2010, 2011, etc. and reconstruct this data?

Even if you want to take advantage of the extra time afforded by the regulators, it is critical to recognize that the law stipulates the time period...back to 2010. This means some effort is required now. Who has this responsibility and other responsibilities in companies that must comply with FBAR?

RESPONSIBILITIES | Filing

Companies must provide information to individuals who are required to file. Companies can also file on the signer's behalf. Around half of companies file on behalf of individuals, and just under half provide information to the individual who is responsible for filing on their own in an electronic manner. (figure two)

RESPONSIBILITIES | Reporting and Communication

Treasury and Tax are almost evenly split on which group is responsible

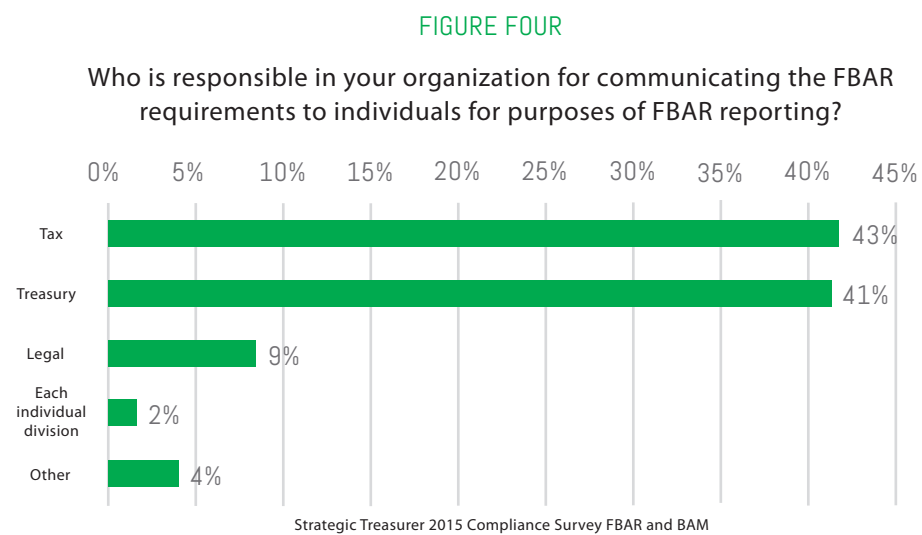
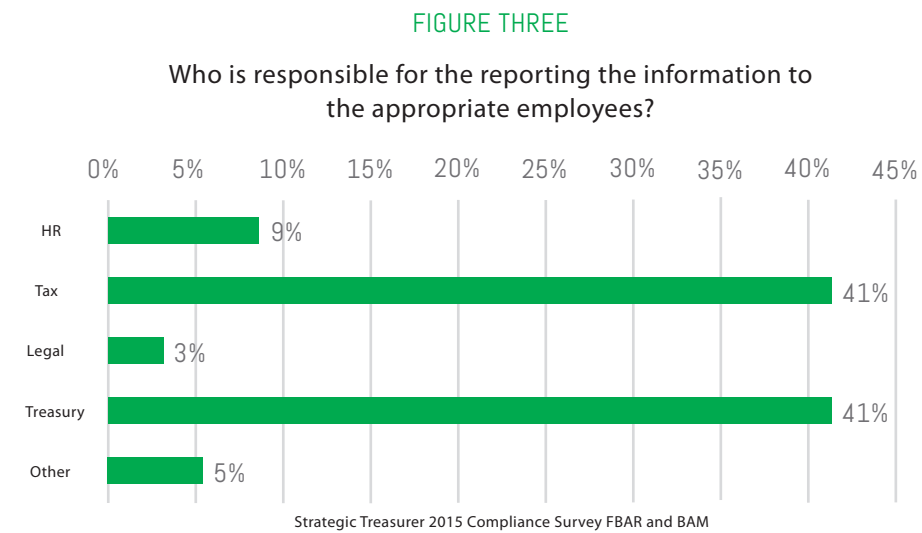
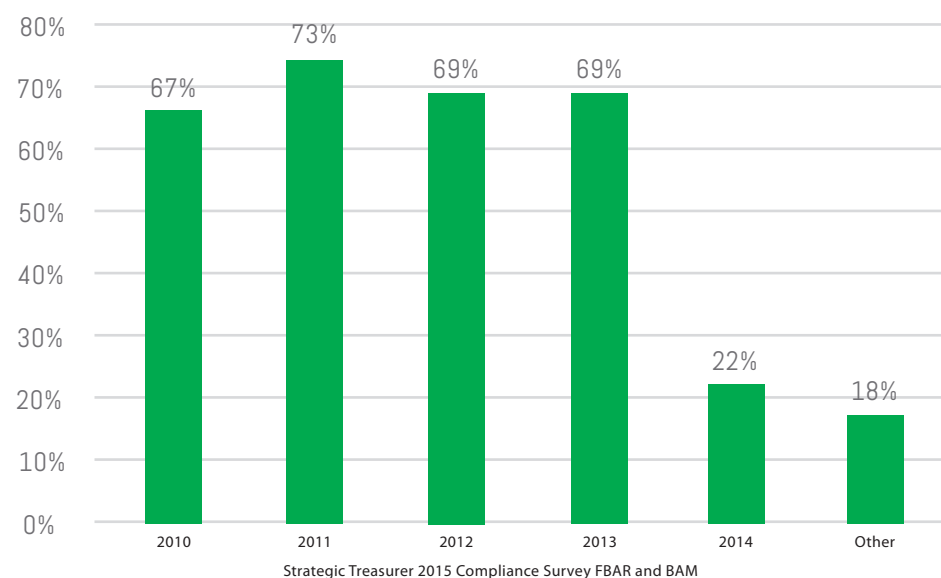


FIGURE FIVE

What years have you ALREADY filed for individual signers or provided them with the information they need to file on their own? (Check all that apply)



to report the information to individuals (both equal 41%) and who is responsible to communicate requirements to individual signers (Treasury is 41% and Tax is 43%). Tax is typically responsible for the corporate FBAR filing (not surveyed). And, Treasury is largely responsible for gathering the data (Treasury is 87% and Tax is 7%, graph not included). (figure three & four)

FILING PRACTICE

For survey respondents who have individuals required to file, we wanted to see their filing practices. Just over 2/3rds of firms have filed for 2010 (or provided signers with relevant information). For 2011, this number reaches 73%. For 2012 and 2013, the numbers are both approximately 70%. The 2014 number is much more limited, but this has to do with the timing of the survey in early January. We are left making educated guesses or speculating as to why the number for 2010 filing would be less than 2011. Our best guess is that a handful of firms are still working on gathering and cleaning older data and found it easier to comply and file from 2012 forward. (figure five)

WHITE (SNOW DAYS & SCHOOL WORK)

Given the winter weather, a predicted snow day can cause our children to procrastinate with their homework. However, the homework will still come due even if it is delayed. It won't be wiped out (at least we hope not). For corporations, the regulators have delayed the filing. However, they are not able to eliminate the legal requirement to file back to 2010. We believe it is an excellent practice to get the older years completed and then stay current with your FBAR filings. ■

CONNECTIVITY

FOR THE CURIOUS

Treasury is responsible for ensuring that relationships with the right banks are in place as a part of future-proofing the department and the company as a whole. Additionally, Treasury is responsible for maintaining those relationships so that credit can be accessed when needed, fees are kept reasonable, and new offerings are being integrated as applicable.

In efficient treasury departments, much emphasis is placed on bank account rationalization—slimming down the many lists of accounts so only those that are truly necessary to business are kept open. Additionally, signatory updates must be addressed at least yearly so that past signers do not remain on accounts. These many steps go into each bank account in a healthy treasury department. And yet, many treasury departments do not view it as essential to have daily visibility to cash in each of these accounts. Visibility to balance reporting can be especially important for foreign bank accounts to assist with FBAR filings and managing currency and bank credit quality exposure. As we have learned from the article on Standards of Good Corporate Conduct found on page 1, Treasury should be receiving at least prior-day reporting for every account.

More choices must be made as you consider setting up reporting.

Why, you may ask, should it matter to you in what format you receive your information reporting as long as your balances are there when you need them for your daily cash position? In actuality, there are many factors that should play into your choice.

“HOW DO YOU WANT TO RECEIVE YOUR STATEMENTS?”

Common options include downloading from bank portals, email, direct connection to ERP or TMS, connections to a SWIFT Service Bureau, or a corporate connection directly to SWIFT. Forward thinking Treasury departments are connecting to SWIFT, either directly or via SWIFT Service Bureaus. The SWIFT model allows for standardized connectivity to the financial community versus the multiple connection paths mentioned. SWIFT’s adoption in the corporate space continues to expand as awareness of the benefits of SWIFT grows.

“IN WHAT FORMAT DO YOU WANT TO RECEIVE YOUR STATEMENTS?”

If we accept a connection to SWIFT as a leading practice, then let’s take a look at the most common syntaxes provided through SWIFT—MT and ISO 20022.



About MT

The MT syntax, which everyone is the most familiar with, was developed in the 1970s when SWIFT was formed. MT is the message type and is part of the FIN messaging service. Examples of familiar message types include MT101-Request for transfer and MT940 - Customer statement. More messages were added over the years to form the complete group which we use today. Many corporates choose to implement MT messages because they are familiar and accepted by many banks. When sent through SWIFT's FIN network, MT messages are validated by SWIFT. Conditional rules are validated to ensure mandatory fields are completed correctly, which proves to be a major advantage of these messages. SWIFT creates the ACK or "Positive Acknowledgement" which lets you know if your message was filled out correctly and will be readable by your counterparty. If there is an error, a NCK or "Negative Acknowledgement" will let you know what field your error was in so you can fix and resend your message. An ACK is an acknowledgement that SWIFT has accepted the message and will proceed with delivery of the message to the recipient and requires no further action. No other form of messaging or syntax provides this level of validation.

ABOUT MX/XML

While MT messages are still being used by many banks, they are becoming outdated with the introduction of ISO 20022 syntax and messages. Despite the flexibility and advances of technology and systems, no new FIN network messages such as the MT types, are being created and all new messages are being created in the more flexible format of ISO 20022. The framework for ISO 20022 encourages users to build business transactions and message models under an internationally agreed upon approach, and to migrate to the use of a com-

mon vocabulary and a common set of syntaxes. New messages, such as payment initiation in the SEPA format, are in the XML format. (figure one)

While many messages have direct equivalents between MT and XML, there are several newer messages created in the XML format with no MT format equal. For example, the pain.002.001.03, which is a Payment Status Report, does not have an MT equivalent. Another example is the camt.054.001.02 which is the Bank to Customer Debit Credit Notification. This message combines two MT messages—the MT900, Confirmation of Debit, and the MT910, Confirmation of Credit. This simplified XML message, camt.054.001.02, combines the two and streamlines the message sending and receiving process for corporates.

One key advantage of the ISO 20022 standards on a global level, is variants. If a group presents a business case to SWIFT requesting a new variant (i.e. version) of the syntax because of a specific piece of information needed in their country or region for example, this can be accommodated and a specific variant of the syntax can be used for that group.

Why does flexibility matter when it comes to messages? If there is a mistake in an MT message, treasury technology systems will not be able to integrate the message. With an XML/ISO 20022 message, the messages will still be able to integrate and there will be an error in the specific field. This is helpful because valuable information is still available.

During this period of coexistence as banks are using MT and XML messages, SWIFT provides the Standards Translation Rules. This allows a corporate to send an XML message to their bank, if

their bank accepts XML. Then, if their counterparty must receive the message in MT format, the bank can use these standards to map exactly, field for field, what the counterparty needs to see. More and more banks are adding XML capabilities every day. SWIFT also provides a guide on their website to see which message types individual banks offer. When approaching a bank it is important to reference this guide as many bank employees may be unfamiliar with all message types and could misunderstand their capabilities.

One issue which has continued to push corporates to use MT messages over XML messages is the fact that some TMS systems do not accept XML formats for information reporting, within the United States. Different information is needed for U. S. reporting compared to Europe. As Europe's requirements are simplified and do not involve float, they have been using XML in their systems for longer. However, leading TMS providers are beginning to accept XML information reporting. For example, Kyriba began accepting the XML CAMT 053 and 052 for prior day and intra day reporting in early 2014. Other TMS providers will be following in 2015. These offerings allow corporates to consider their choices when it comes to file formats and make choices that will last them into the future.

As more banks adopt the XML/ISO 20022 format, because of their flexibility and superiority to MT messages, technology vendors will also adapt their solutions to accommodate both types of messages. XML is clearly the future of information reporting and banks and vendors will soon find themselves outdated and ineffective if they do not adopt SWIFT's XML type messages. ■

FIGURE ONE

FORMAT TYPE	EXAMPLE OF AMOUNT	DESCRIPTION
MT	500.00	<p>The position provides the clue as to what the contents mean. This item may be the 5th data element in a record which means transaction amount.</p> <p>MT and BAI2 formats are both delimited (positionally determined) file formats.</p>
MX	{TranAMT}500.00{TranAMT/}	<p>The tag provides the description of the contents. This element could be moved, but the tags will move with it.</p> <p>XML represents a tagged file format.</p> <p>This is an enriched file format, allowing for additional data to flow more gracefully through the systems (i.e. without breaking everything).</p>

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Treasury
Treasury & Risk Technology
Treasury Resiliency
Treasury Government
Treasury Non-Profit
Working Capital & Supply Chain Finance



developments

In treasury technology swift growth

The Treasury Technology Column provides us with an opportunity to highlight different items that we think will or should be of interest to treasury professionals. While some elements are consistent from issue to issue, we enjoy the flexibility offered by this type of forum. We are always open to feedback on the topics you would like us to cover.

TECHNOLOGY SPEND PROJECTIONS FOR TREASURY AND THE CASH CONVERSION CYCLE JUMPS
In one of our annual surveys (Cash Forecasting & Visibility, done in partnership with Bottomline Technologies) we ask the respondents about changes in the level of spend in different areas. Specifically, we ask in which areas they will significantly increase spend. The survey taken in the fall of 2013, which looked to spend in 2014, had many companies indicating significant spending increases in multiple areas of the cash conversion cycle. This increase roughly tracked with the spending observed during the year. Survey results from 2014 demonstrate that Corporates intend to spend even more in the next year. As you can see in the accompanying graphic,

the intention of 2014 respondents to spend more increased in all four survey areas: Treasury, 12.5% increase for 1/3rd of reporting firms; Invoicing, 58% increase for 1/5th of firms; Payments, 50% increase for 1/3rd of firms; Cash Reporting, 70% increase for just over 1/5th of firms.
(figure one on next page)

If the intention to spend translates to actual spend, there are several implications. First, leading treasury technology firms will continue to invest in their products, sales and support staff. Second, the implementation teams will continue to be extremely stretched as they scale to meet demand. We see this impact continuing in Treasury Systems due to the multi-year rapid growth with most vendors playing the difficult game of catch-up on the professional services side. For Payments Vendors the new formats and range of regulations already represent significant work on development. With the potential for a 50% increase in firms seeking to implement or expand their payment offerings or systems, this should certainly add to project timelines based upon limited resources.

While it is too early to determine the actual spend for all of 2015, the activity we see indicates that companies are investing heavily in their processes and system solution sets. This gives us a strong level of confidence in the predictions listed above. Additionally, the next section shows that many firms believe there is significant opportunity in this *rising tide* environment.

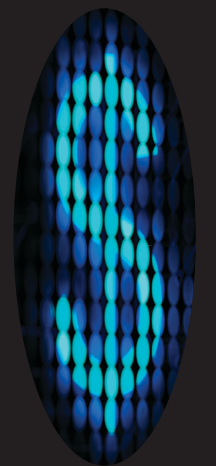
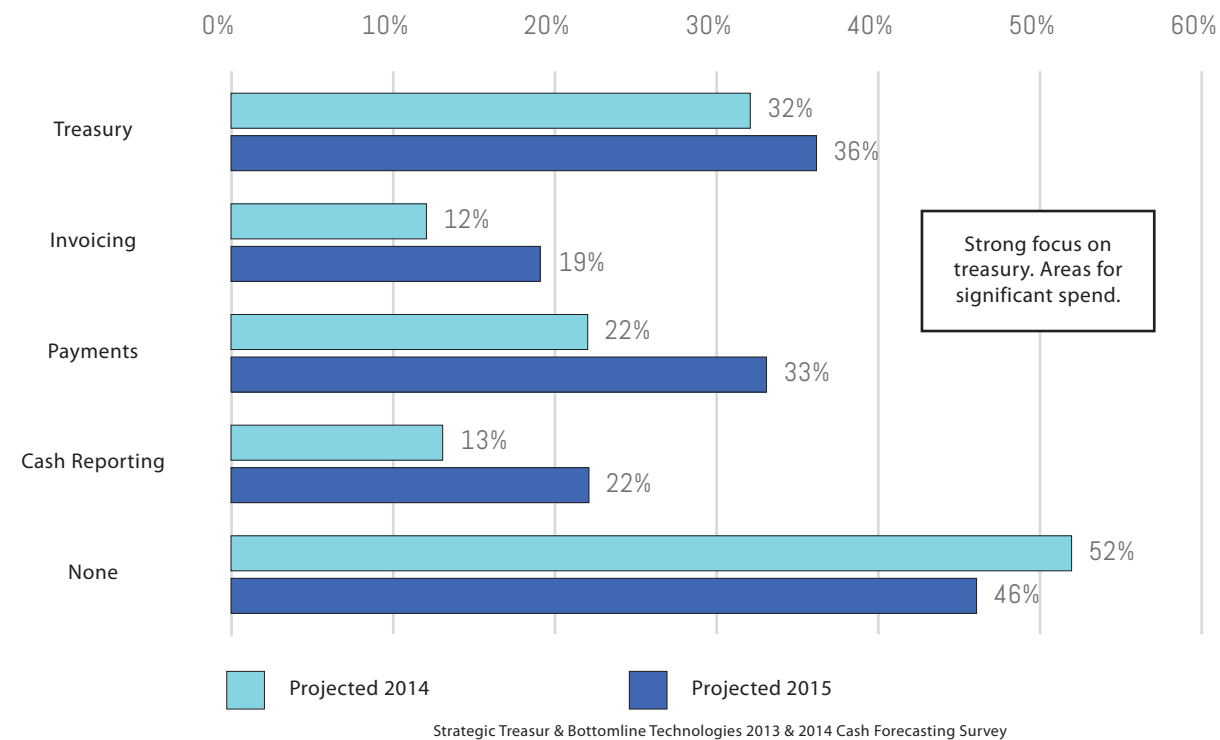


Figure one

We intend to make significant information technology investments in the next year in the following areas:
Projected 2014 & Projected 2015



TMS/TRMS INVESTMENTS AND EXPANSION

The past six months have seen some significant investment and expansions in select areas of the Treasury Management Systems/Treasury Risk Management Systems (TMS/TRMS) categories. The largest publicly disclosed investments and major pushes into new markets have all occurred within those companies experiencing some of the highest growth rates and deploying their solutions via the SaaS model. Increased investment and entry into the market is a rational response to the increased and increasing levels of spend expectations as shown in the survey response related to technology spend.

INVESTMENTS

Reval | \$20mm Private Placement
At the end of 2014, Reval announced that Goldman Sachs & Co. provided \$20mm in structured financing via a private placement. Reval has continued to experience heavy growth in the TRMS space and this funding helps support the ongoing development and delivery of their platform.
• <http://www.reval.com>

Kyriba | \$21mm Series C Funding
In April 2015, Kyriba announced they completed a \$21mm round of Series C funding with HSBC. They have marketed this funding as a way to support the ongoing global growth of the firm and to support product development.
• <http://www.reuters.com>

Bloomberg TMS | New Entrant
Bloomberg acquired the rights and code to a cash TMS system and has worked diligently to integrate this offering with their trading and market data & risk management platforms. This combination represents a new entrant into the cash & risk sector.
• <http://www.bobsguide.com>

TreasuryXpress (part of Box Automation Solutions) | New Entrant in North America
Box Automation Solutions (BAS), a fully-SaaS and CaaS offering in the Cash TMS Sector has made the leap into North America. At the AFP annual conference they exhibited and showed a clean and simplified system to the

audience. Their strength in the MENA region has allowed them to build up over 100 clients and they have started the process of gaining North American clients with the recent opening of their New York office.

Orbit TMS | Newly Expanded Offering
Orbit TMS is the new delivery, implementation and marketing entity for this highly flexible cash system (SaaS is the most common iteration selected). This system originally started by serving a number of large Silicon Valley area companies. They develop various capabilities based upon client requirements and requests and then provide them as part of their standard offering. In the relatively recent past they have begun to expand across the country on a targeted basis. Their highly-focused implementation consultants make for a good fit with customers who want significant capabilities brought online quickly.

SWIFT | Growth of the Network
Visibility, resiliency and efficiency remain extremely important items for corporate treasury groups. Evidenced over multiple years, the ability to secure information and send messages that support the execution of transactions through a network continues to gain traction. SWIFT is a major recipient of this traffic. ■

growth statistics

- Americas: 40% growth over 2013 (highest percentage)
- Europe: 121 members vs 107 (greatest reach)

messages

- FIN growth 22% (traditional message formats)
- FileAct growth 42% (sending messages in any format, non-FIN). This could include: ACH formatted files, newer payment and information formats in XML, etc.

expanding downstream and in channels

- 50% of new members are mid-cap firms (revenue/turnover <\$1B USD)
- TMS Vendors adding Lite2 Connectivity: Bellin, GTreasury

innovations

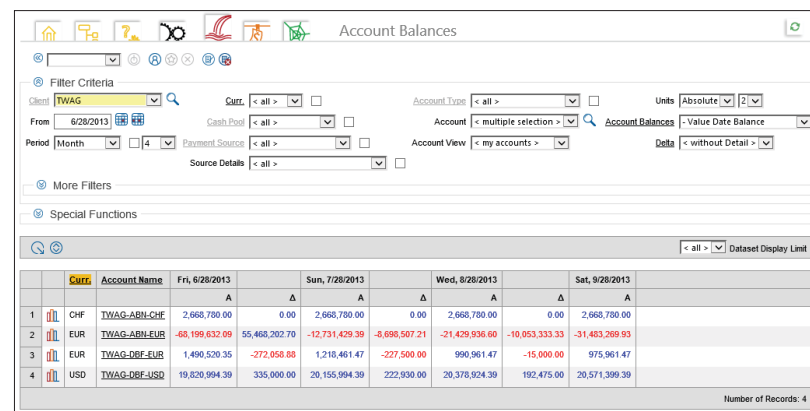
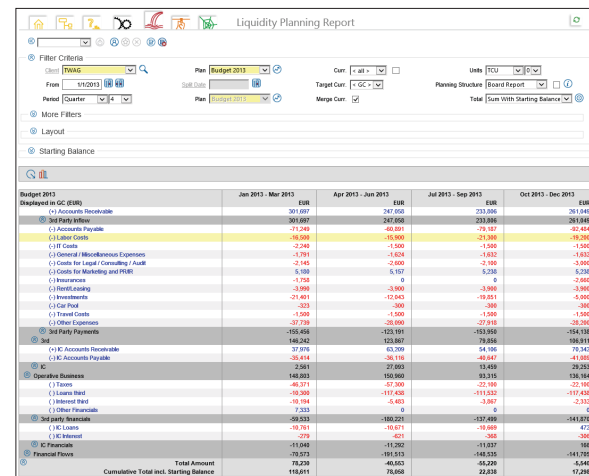
- 50% of the top 20 SCORE banks are adopting MyStandards
- Security – adoption of 3-SKey is penetrating the top 20 segment for e-banking portals
- BPO trade settlement instrument has expanded from Asia to Germany, Belgium and Turkey

COMPANY OVERVIEW

This next section of the technology column provides the reader with a very brief overview of the company and a key product they offer. The description is accompanied by a screenshot of the system, workflow, cash position screen or dashboard with the intent to provide an introduction of the firm with a glimpse of the system from at least one angle. Strategic Treasurer also provides analyst reports with more details. To request a copy, please contact: TUanalyst@strategictreasurer.com

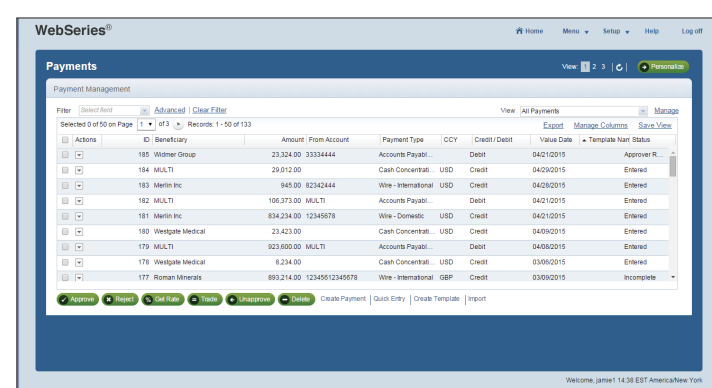
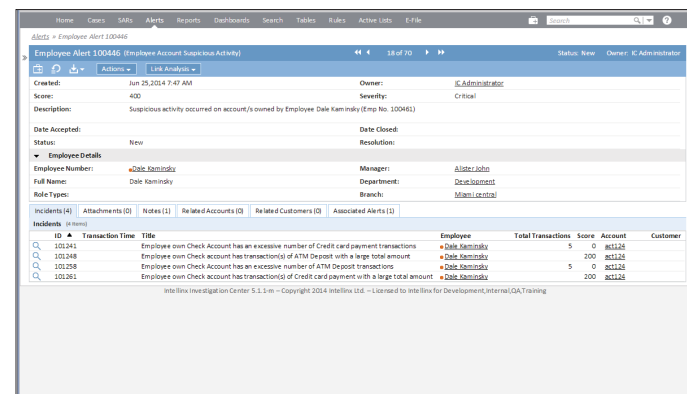
BELLIN

Founded in 1998 in Ettenheim, Germany, BELLIN provides award-winning web-based treasury software and services for multinational corporations. The BELLIN group and partner companies serve more than 300 clients, comprising more than 15,000 companies and 25,000 users in over 150 countries. BELLIN's treasury management system, tm5, provides solutions for global payments, cash and liquidity management, multilateral netting, risk management and more. BELLIN's value-added services include the integrated BELLIN SWIFT Service, SaaS hosting and TaaS.



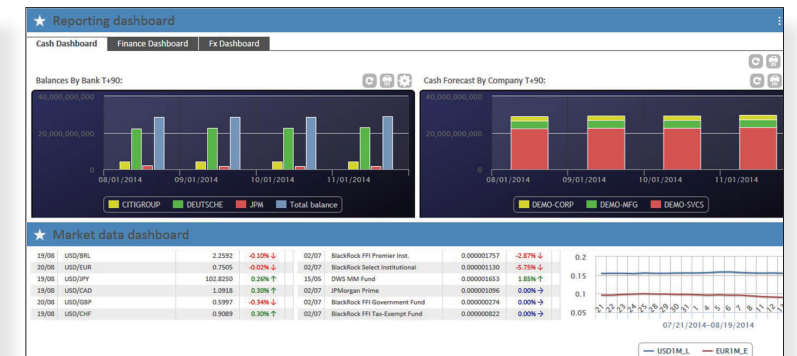
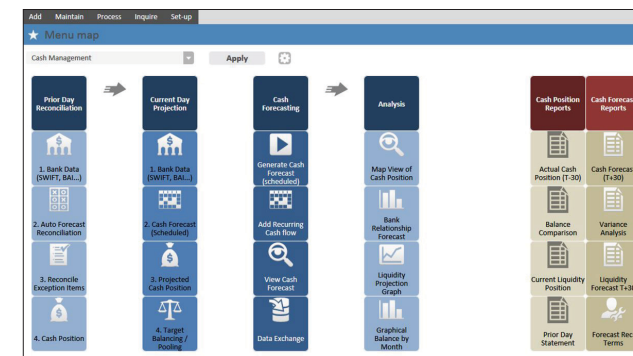
BOTTOMLINE

Bottomline Technologies (NASDAQ: EPAY) powers mission-critical transactions. They help customers optimize key business processes and operations and build deeper customer and partner relationships. Bottomline's trusted and easy-to-use set of cloud-based digital banking, fraud prevention, payment and cash management, financial document, insurance, and healthcare solutions have maximized the efficiency of more than 10,000 corporations, financial institutions, and banks. Headquartered in the United States, Bottomline also maintains offices in Europe and Asia-Pacific.



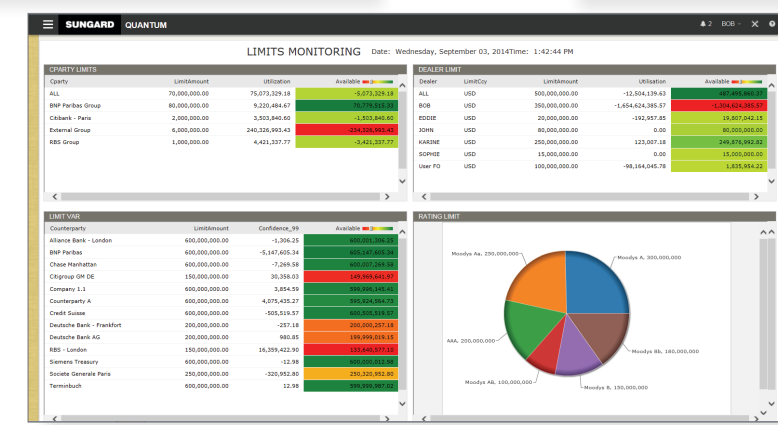
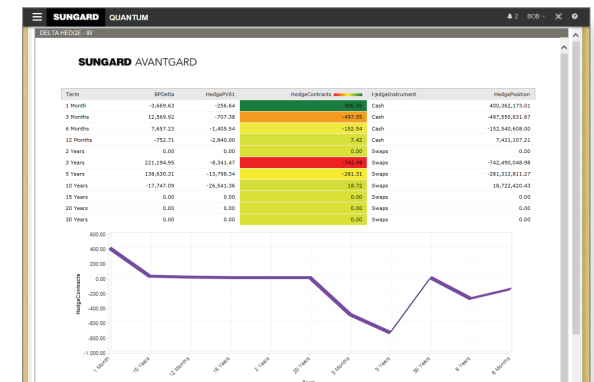
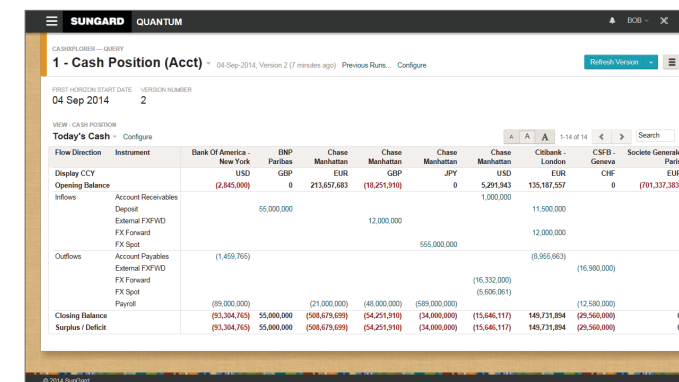
KYRIBA

Kyriba offers an award-winning cloud-based Proactive Treasury Management system. CFOs, treasurers and finance leaders rely on Kyriba to optimize their cash, manage their risk, and work their capital. Their secure and scalable SaaS treasury, bank connectivity, risk management and supply chain finance solutions enable some of the world's largest and most respected organizations to drive corporate growth, obtain critical financial insights, minimize fraud, and ensure compliance.



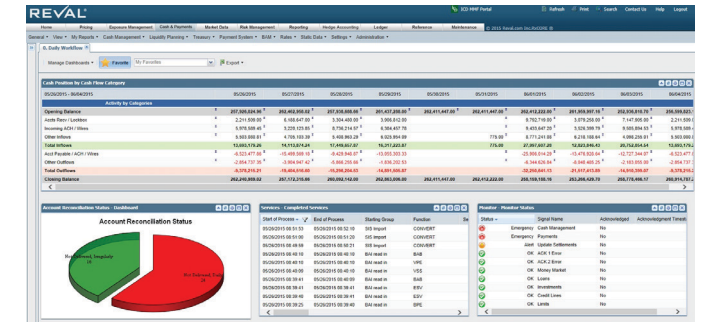
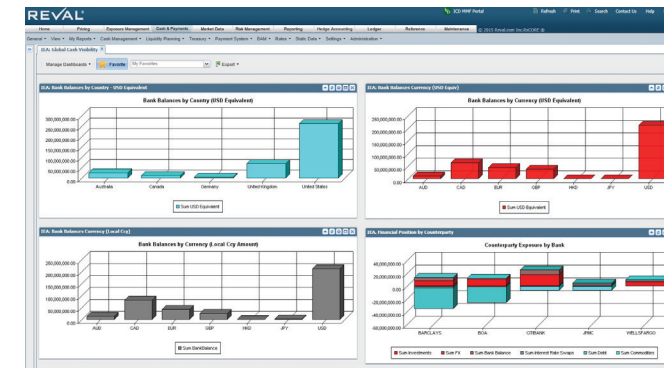
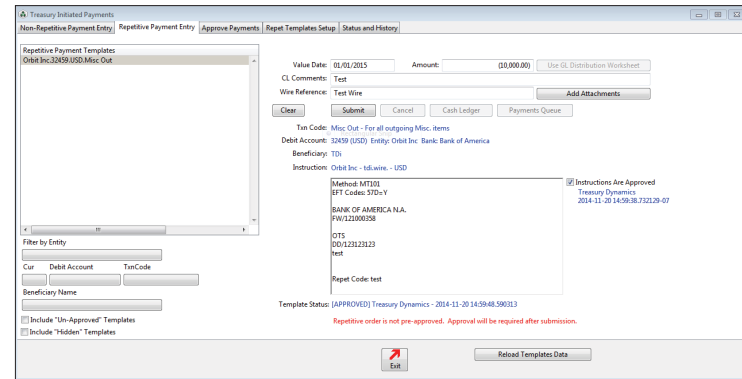
SUNGARD

Transformation in Treasury | SunGard has introduced Quantum Six, a highly intuitive web-based treasury & risk management platform that leverages the latest in cloud technology. Quantum Six offers corporate treasurers an ergonomic design for enhanced usability and mobility as well as a fully enabled web platform to help reduce total cost of ownership. Quantum Six offers sophisticated cash management, extensive analytics, and embedded risk modeling, all built on a platform designed for adaptability and mobility. As industry demands change, Quantum Six can adapt – from compliance and regulatory requirements to increased instrument coverage. About SunGard Financial Systems | SunGard Financial Systems provides mission-critical software and IT services to institutions in virtually every segment of the financial services industry.



ORBIT

Since 1999, select Fortune 600 corporations have used Orbit to automate their treasury operations. The latest release of this robust and flexible solution is now available to the broader market. Developed and supported by corporate treasury professionals, Orbit's user-friendly interface streamlines cash and liquidity management, FX hedging, payments, bank fee analysis, bank account management, accounting, management and statutory reporting (FBAR), forecasting and more. Detailed audit trails strengthen controls and simplify compliance. Straight-through-processing is enhanced with deep integration with ERPs FX trading and confirmation platforms, SWIFT and various other systems and portals.



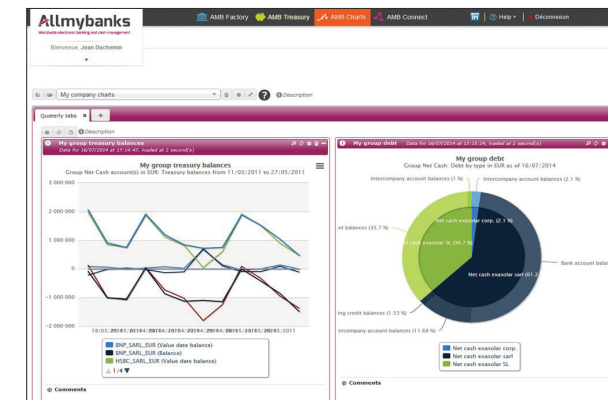
FINANCIAL SCIENCES

Financial Sciences develops and delivers ATOM, their enterprise treasury and risk management software solution. ATOM automates core treasury processes helping clients to achieve control of cash and risk, reduce complexity and costs, ensure compliance and promote best practices throughout their treasury operations. They provide clients a comprehensive solution to manage all of their treasury needs in a cost-effective, web-based platform for both SaaS and on-premises deployment.



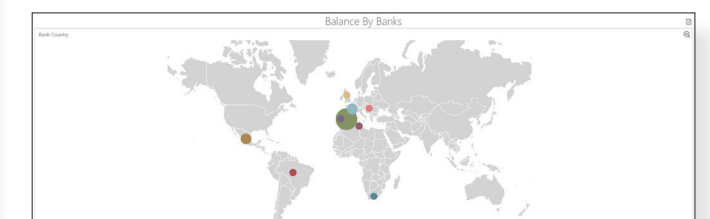
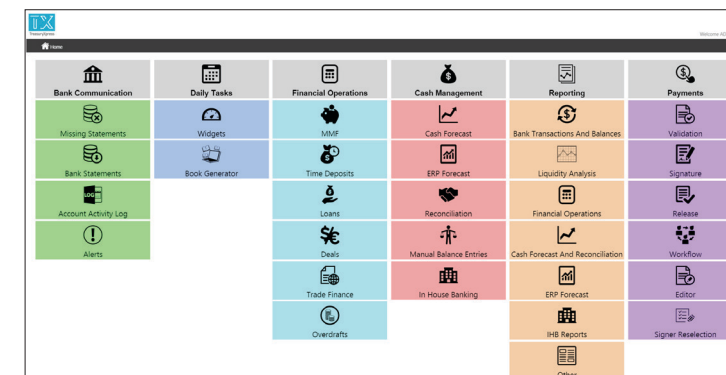
EXALOG

Created in 1984 and headquartered in France, Exalog reports 8,000 corporate clients use their SaaS model from almost 60 different countries. Their web-based software, Allmybanks, features payment processing (STP), automated forecasting and bank reconciliation, advanced intercompany loan administration, bank charge control and net cash personalized reports – all within a single interface.



REVAL

The Reval Cloud Platform was designed at inception as a multi-tenant SaaS for the corporate treasury market. With over 15 years of built-in best practices from innovative corporate treasury organizations around the world, the Reval Cloud Platform is a rich foundation of treasury and risk management (TRM) functionality. Focused on the user experience, Reval is leveraging its cloud platform to design packages in the ways various market segments consume treasury technology. Recently it launched Reval CORE™, a pre-configured, core cash and liquidity management package for mid-market companies, and Reval CHOICE™, a configurable and scalable offering selected from across the full spectrum of TRM functionality.



TMS | TRMS RELEASE WATCH 2015

The Release Watch has been a staple of the Treasury Technology Newsletter for a number of years. It shows various upgrades and enhancements by various treasury technology vendors. In this issue, the Release Watch section focuses on treasury management systems and treasury risk management systems (TMS/TRMS). Future issues will include other sectors of the treasury technology landscape. Upgrade or new release by the various vendors - either fixes bugs, enhancement to features, or entirely new capabilities - are featured in the Release Watch. The information provided details some of the high points of these recently issued releases or provides the reader with a sneak peek at a soon to be released functionality on a vendor and product basis.

BELLIN

- **CONNECTIVITY** | The BELLIN SWIFT Service connects tm5 users directly to the SWIFT SCORE network, facilitating communication with all participating banks to exchange messages for payments, statements, matching, or trade finance purposes.
- **TAAS® (TREASURY AS A SERVICE)** | BELLIN can host, manage and operate treasury processes and assume tasks in daily treasury operations like netting and statement collection.

KYRIBA

- **FRAUD PREVENTION AND SECURITY** | Delivering improved visualization of account authorities and integration of bank account and payment workflow controls to further prepare treasury teams for FBAR, eBAM, and internal audit compliance.
- **STRATEGIC CASH FORECASTING** | Empowering CFOs and global finance leaders to compare multiple forecast snapshots across any time horizon to measure and document forecast accuracy, ultimately enabling treasurers to make confident investing, borrowing, hedging, and working capital decisions.
- **SECURE PAYMENTS AND INTERNATIONAL FORMATS** | Advanced payment dashboards to manage the four levels of payment acknowledgement delivered by SWIFT and direct-to-bank channels, along with additional PAIN and CAMT format development for complete global coverage.
- **RISK MANAGEMENT ENHANCEMENTS** | Increasing effectiveness of risk management programs by improving flexibility of derivative accounting.

BOTTOMLINE

- **CYBER FRAUD & RISK MANAGEMENT (CFRM)** | New solution evaluates and responds to activity using real-time analytics, alerts, and case management tools to assist fraud analysts. Potential fraudulent user interactions can be replayed for analysis.
- **WEBSERIES** | State of the art payment hub has been updated to facilitate expanded usage of standards-based international payments and cash management, offer more robust sanctions filtering, and leverage expanded financial messaging capabilities including access to all SWIFT products and services.

ORBIT

- **USER INTERFACE** | Upgraded, customizable, and user-friendly interface with dashboards.
- **FUNCTIONALITY** | Enhanced FX Exposure capture and inter-company funding, streamlined payments (including attachments) and approval functionalities, new lockbox image capture and bank fee analysis capabilities, strengthened controls and improved compliance.
- **INTEGRATIONS** | Deep integration with SWIFT Alliance Lite2, ERP systems, FX trading and confirmation platforms and various other financial systems.

REVAL

- **REVAL CORE™** | A pre-configured offering designed to meet core cash and liquidity management, basic risk, and accounting needs of growing mid-market treasuries. Reval CORE includes a pre-built and fully integrated workflow to speed setup and deployment of core capabilities.
- **REVAL CHOICE™** | A packaged offering which provides treasury and risk teams with an effective way to select TRM functionality from across the Reval Cloud Platform. With this package, Reval treasury experts lead an in-depth analysis to help companies identify the most appropriate selection of technology, then they configure the CHOICE package to meet the client's specific business needs.
- **CLEARPATH™** | A migration service designed to take the burden off corporate treasury departments that want to move their operations from legacy technology to the Reval Cloud Platform for Treasury and Risk Management (TRM). The ClearPath service comprises a mix of migration specialists, data transformation functionality, and financial support.
- **BANK ACCOUNT MANAGEMENT** | Partner integration with Fiserv's BAWeb extends the value of the Reval Cloud Platform for straight-through electronic bank account management (eBAM). This standardizes and automates the process of managing multiple bank accounts and signatory data. Straight-through processing allows bank accounts in BAWeb to be automatically created and updated in Reval.
- **LIMITS** | Real-time limit controls support the management of international treasury operations, enabling users to set global limits on various types of risk – investment concentration, credit, trader, issuer, counterparty and more. Multiple limits can be checked on a real-time basis at trade entry while automated alerts notify when threshold or limits are breached.
- **FBAR** | For U.S.-based operations with a financial interest or signature authority over foreign financial accounts exceeding certain thresholds, Reval now adds individual reporting to its compliance capabilities for FBAR reporting.
- **BRAZIL FIXED RATE** | For treasuries operating in Brazil, the product supports the linear interest calculation for BRL fixed rate transactions, adding to existing capability for non-linear interest calculation.
- **Security/Single Sign-On**. Additional layers of security and service have been added such as payment authentications, control over passwords, single sign on including Security Assertion Markup Language (SAML), and client support services that monitor and validate client IP addresses.

EXALOG

Product: Allmybanks | Version: 7.4 | Release date: April 2015

- **PRESENTATION** | Allmybanks suite features payment processing (STP), automated forecasting and bank reconciliation, advanced intercompany loan administration, bank charge control and net cash personalized reports – all within a single interface. It is composed of modules in which every function is linked one to another.
- **TREASURY** | Interface with risk management modules.
- **PAYMENT FACTORY** | New payment on behalf (POB) module.
- **CHARTS & GRAPHS** | Reporting editor with customizable parameters.
- **BANK CONNECTIVITY** | Compliance with SWIFT Alliance Lite2.
- **MOBILE APPLICATION** | Bank statements, alerts, validation workflow.



Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it. And then he feels that perhaps there isn't.

Winnie the Pooh – Chapter 1

IS YOUR TREASURY TECHNOLOGY ALIGNED WITH YOUR NEEDS?

A FUNCTIONAL ANALYSIS AND BEST PRACTICES

by Craig Jeffery | Managing Partner, Strategic Treasurer,
in conjunction with [Bottomline Technologies](#)

SUMMARY

The approach to technology is far too frequently undertaken in a manner similar to Winnie the Pooh's method of descending steps. There has to be a better way, if only we could stop to think of it.

In order to think about our approach to understanding some of the technological developments in treasury, it is vitally important to review the overall context of treasury responsibilities and role changes. Historically, many treasurers and their groups were able to focus on securing debt, protecting the organization's assets and managing financial risk. Over time the emphasis on broader liquidity issues, sometimes described as 'owning working capital,' has played an increasingly important role. The expectations for this expanded role have increased with increased responsibility to provide better insight and visibility into exposures and a corresponding elevation of the standard for greater effectiveness at mitigating risk. All of these increased expectations come in concert with the general trend toward increased globalization of the organization's business and supply chain.

This broader liquidity role increases responsibility across the Cash Conversion Cycle (CCC) and necessarily includes Payments, Receivables, and all items that impact liquidity. This has led to a variety of changes in degree

of focus. For example, treasury may previously have been responsible for creating an accurate forecast for a certain type of cashflow. Today they are responsible for all processes that impact those cashflows to ensure adequate and optimized liquidity.

There are several headwinds that make it more challenging to meet these expectations. As mentioned earlier, many companies continue to expand globally; even with the ongoing mantra of rationalizing bank relationships, survey results do not indicate a decline despite efforts at rationalization. With increased requirements, the normal expectation is that staffing resources would be increased. There has been a minor increase in treasury staff levels but not on the scale required to address the need.

Investment in technology shows support for these elevated expectations and the sales numbers of various technologies reflect the increase in spend, though not at the same magnitude.

Organizations are clearly looking for technology to help fill the gap of increased requirements and limited or no staff increases. The challenge is that many organizations do not understand the technology landscape for treasury and thus choose applications that fail to optimize their available spend because they miss meeting several core needs.

SITUATION OVERVIEW

Despite the increased changes in expectations, the majority of firms have a relatively lucid and mature insight into their goals for treasury. Most treasury professionals have some degree of familiarity and facility with treasury management systems and treasury risk management systems. Technology, however, has changed significantly in recent years and most treasury groups do not have the luxury of staying on top of the range of developments that have occurred in the platforms, data management, specialization, services and architecture. Given the rate of change and the limited bandwidth, the natural tendency is to limit the areas that are explored or considered. Making it more difficult to stay current with what's available, vendors have continued to add capabilities to those systems in adjacent spaces, driven by new requirements or perceived opportunity.

TREASURY REQUIREMENTS

Treasury groups have a common set of requirements and responsibilities that vary in criticality from firm to firm.

These responsibilities include:

- Protecting the organization's assets; providing adequate liquidity for the short-term.
- Ensuring the company's relationships with banks and other strategic partnerships.

- Ensuring the future balance sheet will meet the business plans and strategies.
- Securing proper services and banking structures for operational efficiency.
- Effectively managing working capital.

Given the range of requirements that exist and the variety of treasury needs, it is easy to imagine solutions that provide many general services and a number of specialized solutions that would offer best-of-breed approaches. In this case, what is the logical hypothesis would indicate is the case in reality. Best-of-breed approaches have emerged.

ENVIRONMENTAL REQUIREMENTS

While the previous list covered the majority of the functional responsibilities, the environmental requirements represent another way of looking at requirements. This can be understood in five main components which we abbreviate as FIVEC:

- **Flexibility** | In an environment of emerging risk that occurs in combinations that are either unexpected or unpreventable, treasury groups must be nimble. This ability to move quickly and adapt is a key element of flexibility. If a major operational bank has a problem caused by issues as diverse as systems issues or financial deterioration, treasury needs to be able to adjust quickly and gracefully.
- **Insight** | Treasury must understand what their cashflow will be in the next six months and what their balance sheet will need to look like in the next two years to support their business plans. Additionally, there is a requirement to understand the relationship between different events and assumptions and their effect on cashflow,
- **Visibility** | Treasury's requirement for visibility covers a spectrum of exposures or assets. Treasury groups must ensure as their first priority that they have visibility to all of their bank accounts globally. Next is to ensure they have visibility to total counterparty exposure by category and on an individual basis. The process will continue with foreign currency exposures, commodities and so forth. Once the financial crisis began, many organizations spoke about achieving visibility to their bank balances on a daily basis and took steps to achieve either a real-time or daily visibility to their bank accounts. Between 2011 and 2012 the majority of medium to large firms had achieved this goal. Progress has continued so that approximately 7 in 10 firms have this first level of visibility. Leading firms continue to take initiative to increase visibility across the other categories and dimensions of assets and exposures.
- **Efficiency** | Eliminating unnecessary steps and processes is a key element to efficiency. Moving from highly manual processes to automated processes and eventually to straight-through-processes (STP) is another aspect of how treasury creates efficiency. Besides taking more time, manual processes lead to a high number of defects, generating excessive expense. Treasury professionals focus on driving and achieving efficiency both within core treasury activities and throughout the cash conversion cycle.
- **Control** | Control has been a consistent focus of treasury for several

exposure, and residual risk. The ability to perform this type of analysis, scenario management, and modeling are all part of the insight treasury needs to provide to the organization.

decades because treasury fund movements and exposures can have such a disproportionately large impact on a business in comparison to other transactions such as those within Accounts Payable. These controls include employing the use of segregation of duties, preventative controls, detective controls and the like. It covers the key elements of access to and protection of assets.

SOURCES OF CONFUSION REGARDING TECHNOLOGY

With the overall environment described and the responsibilities / goals detailed, we will now deal with some specific situations and items that, individually or collectively, frequently lead to confusion about treasury technology options. This confusion often leads to suboptimal decision-making and the resultant varying levels of disappointment. The four most common causes are:

- Equivocation of terms leading to confusion about services provided
- Inability to utilize modules purchased
- Payment challenges
- Lack of global visibility to critical information

EQUIVOCATION OF TERMS

Part of the confusion stems from equivocation of terms used in treasury. The same term is often used in a general sense by a speaker and the listener hears a level of specificity that creates misunderstanding.

There are numerous examples, but we will provide just a few to bring the point home. The reader should note that while this paper focuses on terms used in the case of someone evaluating a TMS/TRMS solution, the additional examples could be given for any area of treasury technology including

money market portals, trading platforms, payment hubs, compliance systems, treasury aggregators and others.

- **Payments** | A TMS/TRMS vendor responding to a query about whether they handle multiple types of payments will respond in the affirmative, and this would be accurate. The TMS may handle wire payments (for example: Fedwire and SWIFT MT101) and perhaps an automated clearing house (ACH) corporate payment (CCD+). The treasury professional may be contemplating additional formats and services such as ACH: CCD, CCD+, CTX; Canadian formatted payments using the CPA standard; Bacs in the UK; XML formats for SEPA payments and others using the newer XML ISO20022 formats. This creates a gap in what is meant by "yes". Additionally, the company may be contemplating the delivery of various payment files from A/P, a claim system, etc. and expect to deliver those through the TMS seamlessly to provide the data needed for forecasting, workflow approval and execution. This creates a certain disconnect in their perception of what the solution provides that is vastly different from reality.

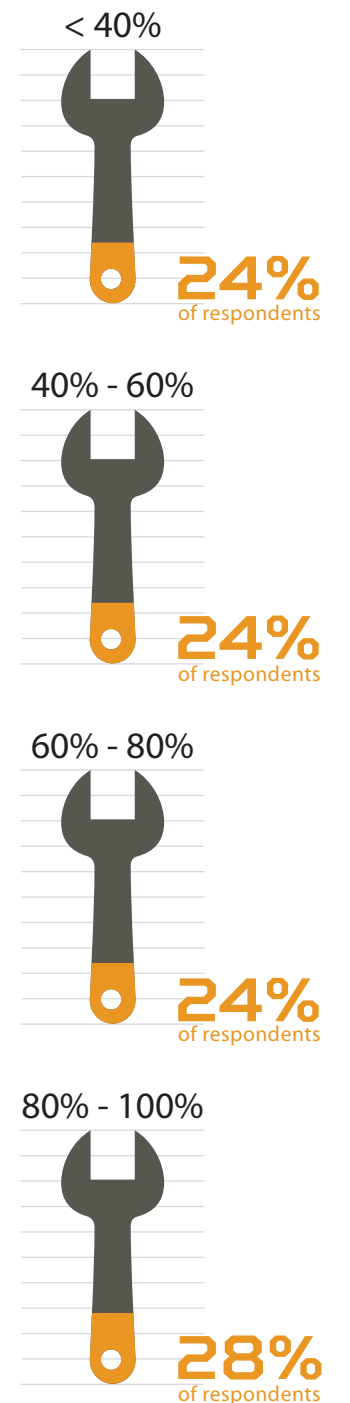
- **Connections and Integration** | Phrases such as "we handle the connections to your banks for payments" or "we have integrated with our trading partner's system" may mean nearly anything on the continuum of connections and level of integration. At one end this may mean that a toolkit is provided and the company has to establish, monitor and maintain those connections from start to finish. Alternatively, it may mean that the process allows a single sign-on but the data will not flow back and forth in a systematic manner. Or,

in the best case, it could refer to a very tightly managed interface that is maintained and supported by the vendor. This could include controlling the flow of data and confirmations back and forth between the two different parties with error checking provided by the vendor. Thus, connections or integration may mean anything from "do-it-yourself" to "we manage everything for you seamlessly".

PURCHASING MODULES AND NOT USING THEM

The percentage of companies that contract for modules within a TMS/TRMS and never implement them, or abandon the use of available functionality, is staggering. Strategic Treasurer conducted our second Rapid Research survey on the awareness and use of TMS/TRMS in late summer 2014. The results showed that only a little over 1/4 of firms use 80%-100% of the modules they purchased. Nearly 1/2 of firms use less than 60% of the modules they acquired.

HOW MUCH OF THE AVAILABLE TMS FUNCTIONALITY THAT YOU PURCHASED ARE YOU USING?



This lack of use stems from several sources:

- Many firms acquire what they don't need or misunderstand the functionality (see equivocation of terms above for a discussion on one element of this phenomena).
- Organizations lack the resources to fully implement the services in a timely manner. The module is pushed to a later phase that never occurs.
- Limited staff may be trained on a module. Turnover occurs, the module falls into disuse and is never reactivated.
- Fourth, the module may not work as described or promised.

Another contributing factor to this lack of use often includes the reality that most treasury professionals only have one opportunity to architect their treasury technology stack. They do not benefit from the experience of doing this multiple times, learning the process and how to avoid the major pitfalls. The rate of change in treasury technology and services is dramatic and few treasury professionals have the time or resources to stay current.

The same survey identified modules that were available but not purchased. (figure one)

Respondents also identified purchased modules that were not working properly and had to be abandoned. (figure two)

It should be clear to the reader that a high level of care is required to properly architect, select and implement the right treasury technology.

FIGURE ONE
WHICH TMS MODULES OR SERVICES THAT YOUR TMS VENDOR OFFERS DID YOU NOT PURCHASE (SELECT ALL THAT APPLY)?



FIGURE TWO
WHICH TMS MODULES OR SERVICES THAT YOU PURCHASED ARE YOU NOT USING BECAUSE THEY ARE NOT WORKING PROPERLY OR ARE INEFFECTIVE (SELECT ALL THAT APPLY)?



PAYMENT CHALLENGES

The vast majority of companies continue to increase the complexity of their IT environments due to changes in the organization structure, geographic reach, and regulatory requirements. Acquisitions result in a proliferation of systems that far outpace rationalization and consolidation efforts.

Companies expand their business internationally, with their supply chain, customer base and operations all being affected. These activities, by themselves, add significant payment complexity. The growth of new payment types, regulations and formats further compound the level of complexity.

In a previous whitepaper we discussed the dimensions that drive an organization's payment processes from basic payments to complexity to hyper-complexity. Many organizations are experiencing the compounding impact of change and find themselves in a hyper-complex environment for payments that surpasses their ability to handle each new request or change on a one-off basis.

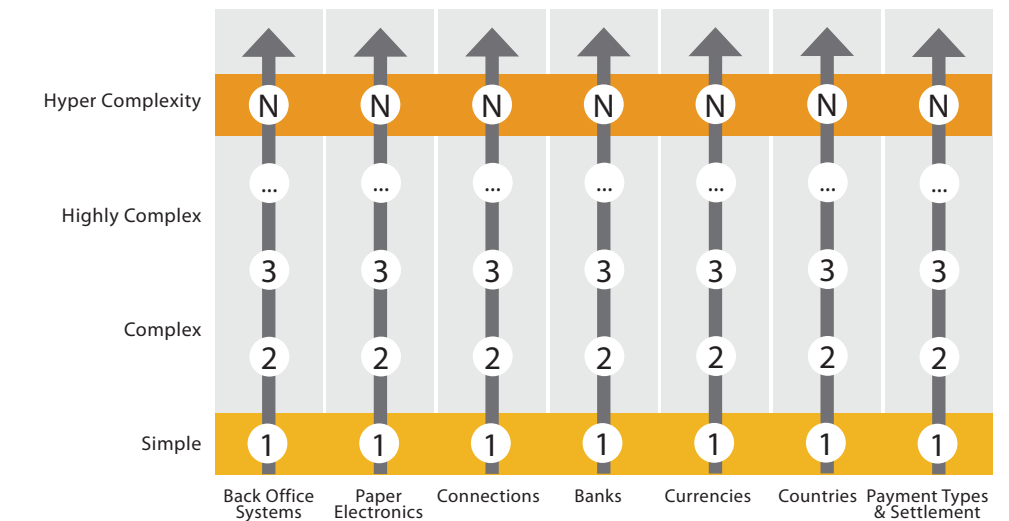
In the past, an organization with several payment systems (e.g. treasury, two accounts payable systems) may have had to support only checks and ACH payments in AP systems and wire transfers in their treasury application. Today, these systems will often have to support a range of payment types in different currencies and delivery methods. This could easily now include: (figure three)

The specific example shown above (figure four) shows several aspects of the complexity involved. It doesn't list the various banks, file formats or delivery platforms. Thus, it is a substantially simplified chart. The graphic that follows provides a more comprehensive view of the variables that add to complexity.

FIGURE THREE

SYSTEM	PREVIOUS	CURRENT NEEDS
Treasury	<ul style="list-style-type: none"> • Wire Transfers • Currency: USD 	<ul style="list-style-type: none"> • Wire Transfers • ACH/LVP (CCD+, CTX) • Currency: USD, EUR, CHF, GBP, JPY, CAD, MXP
Accounts Payable 1	<ul style="list-style-type: none"> • Check • Currency: USD 	<ul style="list-style-type: none"> • Check • ACH (CCD, CCD+, CTX) • Card • Currency: USD, CAD
Accounts Payable 2	<ul style="list-style-type: none"> • Check • ACH/LVP • Currency: EUR, CHF, GBP, JPY 	<ul style="list-style-type: none"> • Check • ACH/LVP (SEPA, BACS, CCD+, CTX, CPA) • Card • Wire (MT, MX) • Currency: EUR, CHF, GBP, JPY
Payroll 1	<ul style="list-style-type: none"> • Check • ACH/LVP • Currency: USD, EUR, CHF, GBP, JPY, CAD, MXP, INR 	<ul style="list-style-type: none"> • Check • ACH/LVP (SEPA, CCD+, CTX, CPA) • Currency: USD, EUR, CHF, GBP, JPY, GAD, MXP, INR

FIGURE FOUR



Each system, currency, format and delivery method requires substantial resource effort in order

to stay current with the existing and emerging business and regulatory requirements.

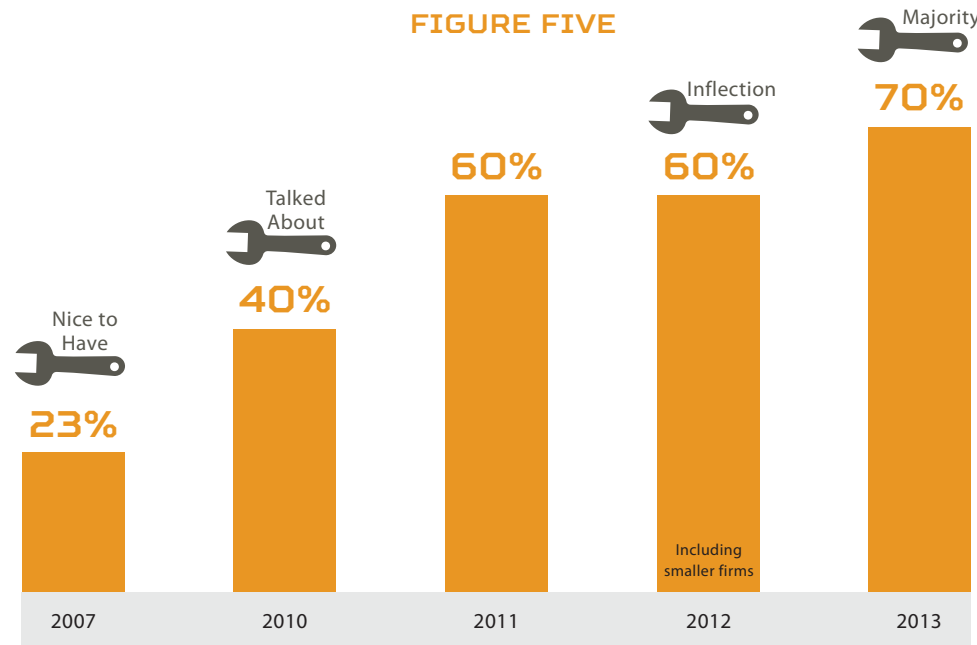
REQUIREMENT FOR GLOBAL VISIBILITY

The fourth technology challenge stems from the financial crisis that began in 2008. The financial crisis identified challenges with counterparty risk management, exposure to operational services and showed a general lack of visibility across a range of financial risk dimensions. The heightened attention to these items continues to this day with no real sign of abatement.

The perception of risk level has increased to a previously unseen height. This change in perception is matched by a comparable rise in the expectations placed upon treasury to protect the organization. Executive management and the board of directors have both become more knowledgeable about risk and exposure and expect better visibility to cash flows by currency, bank, country, and counterparty. These expectations have driven organizations to speed up their efforts to achieve visibility in a number of areas beginning with bank balances and resulting in substantial progress being made over several years. In the graphic you can see the estimate of visibility to bank balances at the start of the financial crisis ranging from 1/4 to 1/3 of organizations of moderate to significant size. In our annual cash forecasting and visibility survey we have seen significant improvement on an annual basis reflecting continued efforts by corporate practitioners to achieve visibility to balance information.

(figure five)

It is important to note that the increase in visibility to corporate cash positions occurred in spite of the enhanced complexity created by globalization. This is attributable to a variety of additional factors including the rise of SWIFT use by corporates and the growth of treasury aggrega-



Data Source: Strategic Treasurer Estimate & Strategic Treasurer & Botomline Cash Visibility & Forecasting Surveys (2010-2013)

tion services such as SWIFT Service Bureaus.

The increase in visibility to daily cash has been significant and has been the primary focus for visibility improvement. Additional attention is being paid to other types of visibility including cash flow forecasting, counterparty exposure, aggregation against all asset/exposure classes, foreign currency exposure, and country risk monitoring.

Cash flow forecasting is another critical area to achieve visibility, and organizations are working to improve their capabilities here as well. Segments of cashflow forecasting that often need improvement include collection and disbursement activities. On the disbursement side, there are a range of factors that contribute to this sub-optimal forecasting performance. Capital expenditures frequently shift on the calendar and generate large liquidity variances because income does not shift in the same time frames. Other organizations experience variances from payment scheduling and exception processes that create “rush payments” due to manual and labyrinthian

processes that produce ad hoc payments that may not have been visible within the forecasting process. Finally, many organizations have a variety of payment systems and decentralized processes that generate unexpected payments and degrade the quality of forecasts.

While significant and noteworthy progress has been made in some areas of visibility for many organizations, it is just as accurate to say that much more needs to be done to mature this capability in other key areas affecting the forecast.

LANDSCAPE OF TECHNOLOGY & CONTINUUMS

In this section we will, as briefly as possible, provide a view of the landscape of treasury technology. The graphic that follows shows the major categories of technology on the outside rectangles. Inside that framework, the major categories of technology are shown by function. It is worth noting that there is often an overlap between one category of system and another. This is expected as products expand to meet additional client needs.

(figure six)

Within the technology landscape chart there are generalist products that cover a range of services. An example of this is the TMS/TRMS. There are also specialist products which provide extensive capabilities on one or two particular function types. These are often referred to as “best-of-breed” solutions.

A particular generalist system may allow an organization to handle, for example, five different tasks that would provide a simpler setup and maintenance process than owning and integrating five separate systems. As the requirements grow in each area, an organization can outstrip the generalist functionality in any given area. In the graphic you can see a continuum of business requirements in a range of categories (gray boxes). As an organization’s needs in an area scale up, the rationale for shifting certain functionality to specialist or best-of-breed solutions increases.

An organization with limited investments is usually well served with a TMS’s investment module. However, an organization with a huge number of investments may need to acquire a dedicated investment management system to handle the range of instruments and support the portfolio management and reporting requirements of the organization.

The same type of situation can hold true in some other areas such as payments. As an organization grows in the complexity of the payment process (number of banks, payment types, currency, formats, etc.), they will need to add functionality and support via a payment hub in order to address the increased demands and rising complexity.

(figure seven on next page)

FIGURE SIX: LANDSCAPE OF TREASURY TECH SYSTEMS

TMS/TRMS, Liquidity Portals and Inhouse Banking		Working Capital & Cash Conversion Cycle	Compliance Related
Treasury Management Systems (TMS/TRMS)	Investment/Liquidity Portals	Order to Collect	Control Systems
IHB & Pooling Systems	Netting Systems	Order to Pay	Spreadsheet/Database
Currency Systems	Investment Management Systems	Workflow Image Technology	Bank Administration
	Custody Systems	Letters of Credit Systems	Investment Compliance
	Payment Hubs		FBAR, FATCA Compliance
Risk, Debt & Investment	Data Aggregators		
Exposure Identification	Dimensional Risk Analytics Dashboard/Treasury Optics		
Risk Management		Treasury Visibility	

ARCHITECTING THE SOLUTION – THE TREASURY TECHNOLOGY STACK

In order to make improvements in treasury technology and processes the overall approach and perspective taken is critical. The treasury technology stack must address both the current and future business requirements. Three perspectives that should be kept in mind include:

- 1) There will be multiple systems;
- 2) Systems will need to be inserted and removed from the technology stack over time;
- 3) There will be constant change, requiring the architected solution to allow for this with minimal effort.

Multiple Systems

No single system can meet all the requirements of the treasury group and the other organizations whose processes affect cash flow. The TMS/TRMS will sit at or near the center of

the universe of systems, but it will never be alone.

Change

Change is constant. Whether additional analysis is required to address some new risk, growth in needs, a new entity is acquired and will need to be integrated, change will happen.

Flexibility of Design

Since there will be ongoing changes, the design must be flexible. Accounting typically has several years to prepare for any change. Treasury, quite often, has to respond to a new set of risks or requirements quickly to protect the organization from financial harm. The requirements can sometimes come far faster than the technology vendors can create, test and deploy new features within a large system.

The Treasury Technology Stack

For the purposes of this paper we will be exceedingly brief on this important topic in order to provide the context of the technology stack in selecting the right technology. The graphic shows the conceptual technology stack for treasury. It should be clear that this stack needs to be designed for each company in light of their current and emerging business requirements. This stack contains the five key elements starting with data and data architecture and moving up through to analytics. The accompanying graphic provides some additional information about the activities or roles performed by each layer.

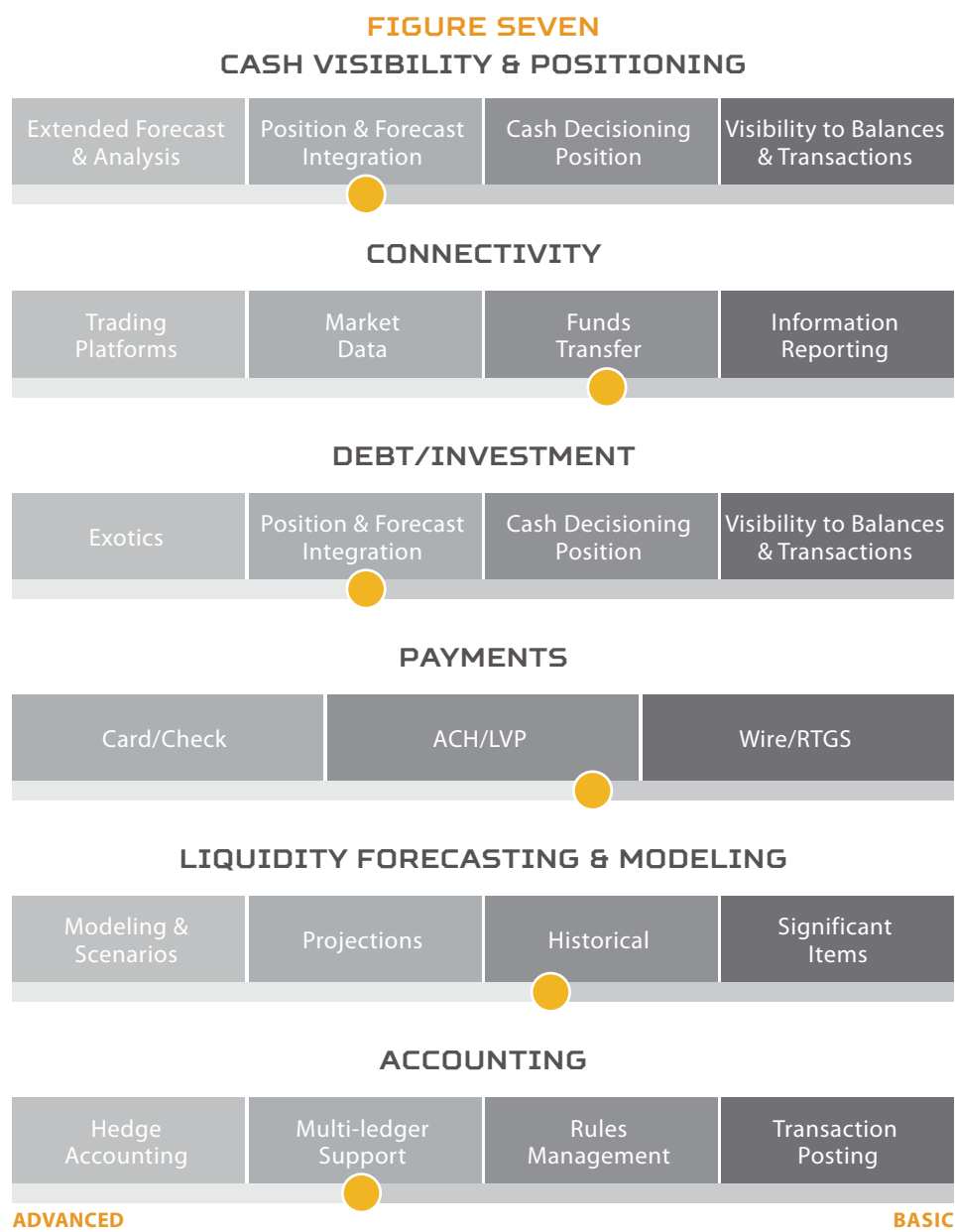
(figure eight on next page)

PUTTING IT TOGETHER

The previous section was devoted to the technology aspects of structuring or architecting the solution. Importantly, securing the right technology for treasury cannot be done without input from multiple departments within the organization. There is a logical order to effectively managing this endeavor to ensure everything and everyone is aligned. The vast majority of treasury groups will benefit from focusing on the key components which represent a progressive approach that has been covered in pieces throughout this paper.

Strategy for Cash, Visibility, Payments, etc. Treasury must determine their overall strategy for fulfilling the vision and meeting the needs of the organization from each dimension of their requirements.

- *Architecting the Solution* | The treasury group will need to create operating guidelines to support the strategy. This will define the architecture of their technology stack at all levels.
- *Securing Buy-In* | Taking the one-off approach to fix each issue is inef-



- *Extending the Value* | Once the architecture has been decided

and the improvement process has been started, it is best to achieve a relatively quick victory. This victory can be parlayed into additional support and value for the organization. One example of this comes from a large multi-national that had numerous payment areas each managing the payment process on their own.

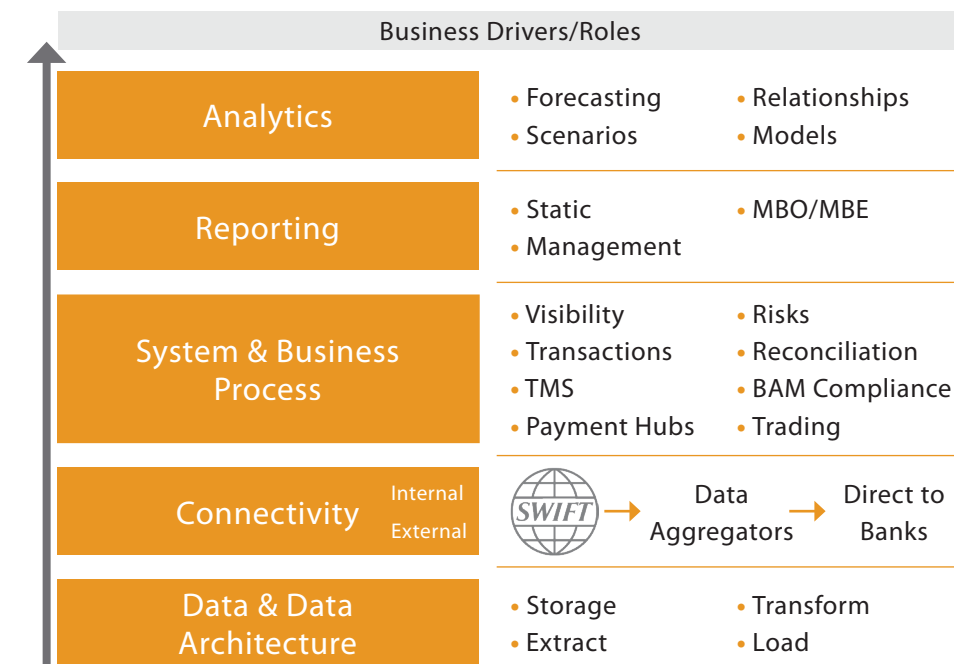
“Initially, we had to convince and sell other business units on the value of a payments hub. Once we were able to on-board a few key disbursement interfaces, our internal business partners saw the value of the payments hub. Other departments wanted to utilize the solution and included Treasury as a strategic business partner in the design and implementation of their payments related projects. These projects funded additional features and functionalities, including global payment capabilities, that were leveraged across all payments hub clients. The payments hub is now recognized as a company standard for new disbursement implementations. While we still continue to make the business case for any new internal interface work, we no longer have to beg.” – Treasury Executive – Major Insurance Company.

This approach ensures the strategic fit of the solution set and achieves ongoing and progressive organizational buy-in. Success breeds more success and is worth the investment of energy and time.

CONCLUSION/SUMMARY

By taking the proper steps, there is a way to stop the bumping, to find a better way to come down the stairs, and to improve upon Winnie the Pooh’s process. To do this, Treasury and Finance professionals need to

FIGURE EIGHT
TREASURY TECHNOLOGY STACK



understand that not all technology offerings have the same capabilities. There are many areas where specialty or best-of-breed offerings provide a level of functionality that greatly exceeds the more generalist offerings. It is critical for treasury professionals to understand their business needs in each area within the continuum of treasury requirements. It is just as critical that they understand their required technology stack and the overall technology landscape if they hope to have an optimal match. These technology choices will be in place for many years and making the right choices will reduce cost, error and the associated inefficiency. ■

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