

Exchange

Association for Financial Professionals' Quarterly Magazine

Questions, Questions

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What's next for LIBOR?

Why were Brexit forecasts so wrong?

How effective is data visualization?

Is blockchain here to stay?





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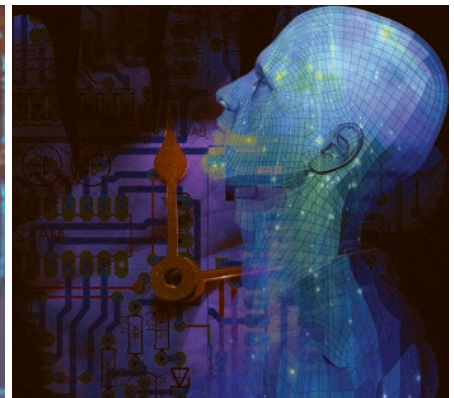
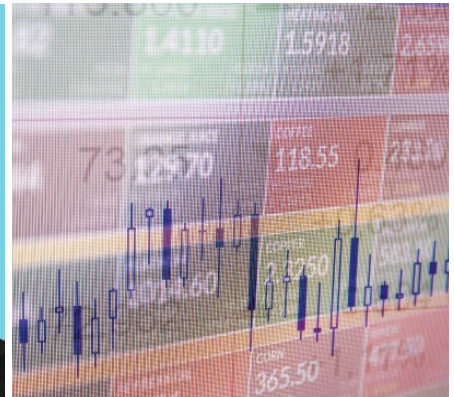
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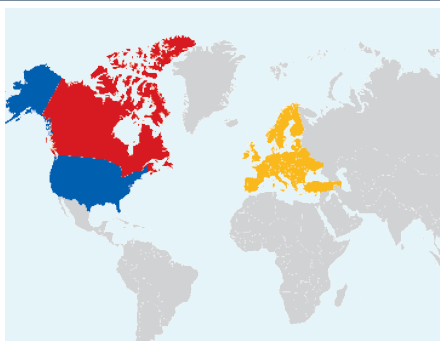
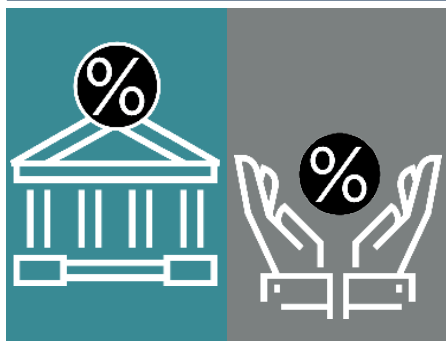
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JIM KAITZ, PRESIDENT & CEO

PACIFIC EXPANSION

Dear AFP Members,

You don't have to be a best-selling author or futurist to know that our world is more connected than ever before.

Companies headquartered in the United States are selling goods in Germany that were manufactured in Vietnam. Trade decisions made by the Chinese government impact Malaysian factory workers via American consumers.

It is no surprise, then, that treasury and finance professionals are more connected than ever as well. Case in point: Singapore and Hong Kong are engaged in a heated competition to be the nation of choice for hosting regional treasury centers. This rivalry is good news for foreign companies looking to reduce APAC-related treasury and finance costs, but it has unintended consequences.

Because Singapore and Hong Kong are engaged in this treasury and finance arms race, both nations are on the lookout for the best and brightest treasury and finance professionals. Traditional accounting and finance skills are no longer sufficient. These workers need cutting-edge treasury and financial planning and analysis knowledge as well as improved communication, negotiation and management techniques.

This is where AFP makes its own global connection. AFP exists for the success of the corporate financial professional—not just in our traditional territory of North America, but around the world. We have two

world-class professional certifications and timely training that can help our treasury and finance colleagues in Singapore and Hong Kong and anywhere on the planet.

To help foster the development of our APAC outreach I am pleased to announce that AFP is opening its first office in the region. My colleague, Himashi Soriano, is relocating from our headquarters in Bethesda, Maryland to Singapore to lead our efforts. Himashi and I have already made several visits to the region. We've met with local corporate treasurers and chief financial officers, not to mention authorities at the Hong Kong Monetary Authority and the Monetary Authority of Singapore—the central banks for these respective nations. Our goal is to listen and strategize ways to best support the treasury and finance profession.

Better trained and skilled professionals in your company's APAC treasury center or finance team can only help you do a better job in America and Canada. More than ever, we are all in this together.

Sincerely,

A handwritten signature in dark ink, reading "J Kaitz".

Jim Kaitz
President and CEO



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¹ MCSI study, 2015; Study shows companies with strong female leadership generated a return on equity of 10.1 percent per year versus 7.4 percent for those without a critical mass of women at the top. McKinsey Global Institute

² As of June 30, 2018

³ State Street Global Advisors Asset Stewardship Team

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The power to__ pay virtually

Virtual Payables can take your P2E conversion to the next level

The tide has turned against checks. Today, less than 40% of supplier payments are paper based, while 16% are made by purchasing card and virtual card.¹ By 2021, businesses expect to make more than one-fourth of vendor payments via card — and they anticipate that check volume will fall to just 18%.²

How can your organization take advantage of these trends? While every company's circumstances are unique, a roadmap is emerging that can help you shift more spending to card.

1. Gain buy-in

Before you make any substantive changes — such as implementing new solutions or policies — quantify the working capital benefits of switching from check to card. Presenting hard numbers can help you gain buy-in from senior management in finance, supply chain and other functions. Their support will be crucial to your success.

One client recently got
\$128 million
in card spend from reaching
out to vendors

2. Reach out to vendors

For bigger organizations with thousands of vendors, finding those that accept card and persuading them to do it may seem like an impossible task. Ask your bank to help. We conduct regular outreach campaigns on behalf of our clients, using our scale and know-how to find vendors who accept card and convince them to accept it. A best practice is to send us your vendor file annually, and some clients are switching to every six months due their success.

3. Segment suppliers

Dividing your suppliers into the following four groups can also help you pinpoint good candidates for card payments.

Suppliers who fall into the “new” and “strategic” categories are where you'll likely have the most leverage. Many new suppliers will be eager to accept card payments if it means growing the relationship. Strategic suppliers who provide commoditized goods can often be persuaded to accept card, since it's easy for you to switch to a new supplier.

Supplier segments

Strategic supplier

- Ample competition
- Favorable terms help buyer fund fixed or less-flexible costs
- Focused on client retention per size and volume
- Significant buyer leverage

New supplier

- Eager to grow relationship
- Ample competition
- Significant buyer leverage

Active supplier

- Low dollar
- One-time payments
- No buyer leverage

High-value supplier

- Good critical to buyer
- Best of breed/only provider
- Buyer dependency limits terms negotiation
- Limited buyer leverage

4. Negotiate terms

Offering faster payments is another way to incentivize suppliers to accept card payments. Some companies have created a tiered payment system — delivering card payments within 7–10 days, ACH payments within 25–30 days, and checks within 45–60 days, or longer. Whenever you onboard new suppliers, negotiate the contracts with card as your primary payment method.

5. Use A/P to fund key initiatives

Rebates from card spend can be significant and play a big part of your organization's working capital strategy. You can use them to fund big projects, such as IT upgrades, or invest in other initiatives. They can also help incentivize other teams within your company to shift spending to card. One client that launched Virtual Payables in 2013 has since turned A/P into a profit center that's fully funded by virtual card, after tripling its card spend in just five years. Today it has more than 40 dedicated employees aiming for \$400 million in annual spend.

6. Target utilities

Card payments to utilities are growing more common. Larger organizations can often aggregate their numerous facilities into a single payment for extra scale. Although there are fees sometimes, they can be offset by the benefits of eliminating checks.

Here is how one of our clients is putting these ideas into action — and generating real results.

Takeaway

If vendors want to de-enroll, inform them you will extend their payment terms.

Graphic Packaging International

Graphic Packaging is one of the world's largest makers of paper packaging materials. After going live with Virtual Payables in 2007, they averaged more than \$30 million in annual card spend for the first 10 years of their program. In 2017, their card purchase volume suddenly spiked to \$89 million.

What changed? Heta High, Graphic Packaging's shared services supervisor, cites several factors for the huge jump. For example, they conducted their first outreach campaign, working closely with us to persuade vendors to accept card.

Close collaboration across the organization has also been key, driven by senior executives who are champions for using Virtual Payables to create extra working capital that the company can invest in growth. Accounts payable and procurement — who manage the company's supplier relationships — are also part of the strategy and play an active role in negotiations. A/P reviews all invoices to determine vendors who already accept card.

A specific negotiation stance has also helped Graphic Packaging maintain their momentum. When vendors try to go back to check payments, High counters by extending the payment terms back to what was originally stated in the vendor contract, or 90 days when the contract doesn't specify terms.

By shifting more spend to card, Graphic Packaging has taken P2E conversion to the next level and helped generate real results for their business.

Graphic Packaging at a glance

- Headquartered in Atlanta, GA
- One of the world's largest packaging manufacturers
- Uses Virtual Payables
- Grew card purchase volume nearly 300% from 2016-2017

¹IOFM Future of Accounts Payable Survey 2018

²Ibid.

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LIBOR

VS.

SOFR



Big changes are coming for U.S. treasurers

ANDREW DEICHLER

KEY TAKEAWAYS:

- LIBOR will likely lose its status as the global interest rate benchmark after 2021.
- The majority of existing exposures to LIBOR are slated to mature before 2022, but not all.
- SOFR, an overnight rate based on a Treasury repo transactions, is the preferred alternative rate for USD LIBOR.

Buckle up, treasurers. The UK Financial Conduct Authority (FCA) has said that it no longer plans to compel banks to submit London Interbank Offered Rate (LIBOR) quotes past 2021. Once that happens, LIBOR will lose its status as the global interest rate benchmark and that title will likely be taken over by an Alternative Reference Rate (ARR).

Over the past several years, markets have begun to craft alternative rates that would effectively replace Interbank Offered Rates (IBORs). The Alternative Reference Rate Committee (ARRC) in the United States has selected the Secured Overnight Financing Rate (SOFR) for U.S. dollar derivatives and other financial contracts, and it is the heir apparent for loans. SOFR differs greatly from LIBOR, and that has major implications for corporate treasury.

“In almost every credit agreement in the world, the applicable interest rate that corporates are paying on their loans is tied to LIBOR,” said Kimberly C. MacLeod, partner with Hunton Andrews Kurth LLP. “So now LIBOR could go away at the end of 2021, and the [fallback rate] is a lot more expensive than LIBOR. The SOFR rate, which is what [the International Swaps and Derivatives Association (ISDA)] has said it will move to, does not translate exactly to LIBOR. So there are some adjustments that would be required to move to SOFR for credit agreements.”

continued on page 12

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“LIBOR has been around for 30 years. If you have a billing or contract management system for your supply chain management activities that has an implicit interest rate built into it, it wouldn’t surprise me if LIBOR is the reference rate.”

LIBOR’s flaws

LIBOR has been an endangered species for some time now. In 2012 it was revealed that financial institutions were manipulating the rate for their own gain. The results were investigations, fines, jail terms, and reputational damage to the financial sector.

“The global financial crisis exposed excessive risk-taking and a long series of lapses in judgment, and the LIBOR scandal further undermined trust in the ethical standards of the banking industry,” said William Dudley, President and CEO of the Federal Reserve Bank of New York, who called for “aggressive action” to move to a more resilient benchmark.

Following the LIBOR scandal, the International Organization of Securities Commissions (IOSCO) established a set of principles for determining a good benchmark rate, and LIBOR doesn’t fit that criteria. For example, a key principle is for benchmark rates to be “anchored by observable transactions,” rather than based on so-called “expert judgment” by the banks. “In most instances, LIBOR is based on expert judgment. On average less than 30 percent of submissions are based on actual transactions,” said Ming Min Lee, principal, financial services for Oliver Wyman.

Lee added that the transactions underlying LIBOR submissions—unsecured wholesale term lending to banks—are no longer active following the financial crisis. “Banks have largely moved away from interbank lending to something that is more stable,” she said. “So that’s a big change and we don’t expect the transactions that used to underpin LIBOR to come back.”

There are currently more than \$200 trillion in USD LIBOR-based contracts outstanding. The majority of existing exposures to LIBOR are slated to mature before 2022, but not all. According to the New York Fed, in the U.S., approximately \$36 trillion in notional outstanding will not mature before LIBOR is set to end, assuming there are no new LIBOR-based issuances. While most of that exposure is in interest rate derivatives, longer-dated positions in other asset classes are sizeable, such as an estimated \$4.7 trillion in consumer and business loans.

Corporates need to start thinking about their options. Finding an alternative rate is critical because it will affect funding costs. And since the fallback rate would be higher than LIBOR, treasury departments will want to look for a comparable or cheaper rate.

Lee pointed out some key ways that treasurers could be impacted

by the shift, the most obvious being floating-rate debt instruments, and committed lines with banks. But there are other areas that practitioners might not be thinking about, such as intercompany funding agreements and late payment penalties that could be LIBOR-based.

LIBOR could also be used in a corporate’s systems and processes. “LIBOR has been around for 30 years,” Lee said. “If you have a billing or contract management system for your supply chain management activities that has an implicit interest rate built into it, it wouldn’t surprise me if LIBOR is the reference rate.”

Treasurers also need to consider that LIBOR is currently managed by one administrator across five currencies and a range of tenors. “Multinational corporations will need to care about the evolution of the alternatives for all five currencies, each on its own timeline,” Lee said. “In all likelihood, we will have a multitude of conversion approaches; not just one.”

Moving from LIBOR to SOFR

SOFR, an overnight rate based on a Treasury repo transactions, is the preferred alternative rate for USD LIBOR. SOFR daily trading activity is at around \$800 billion, which is about 1,500 times daily LIBOR transaction volume.

Jerome Powell, a member of the Board of Governors of the Federal Reserve System, and Christopher Giancarlo, chairman of the U.S. Commodity Futures Trading Commission, wrote in a Wall Street Journal op-ed that the choice of SOFR “resolves the central problem with LIBOR, because it will be based on actual market transactions currently reflecting roughly \$800 billion in daily activity. That will make it far more robust than LIBOR.”

But there are a few key differences between the two that are immediately apparent to a corporate treasurer or CFO. First, LIBOR is an unsecured rate at which banks purportedly borrow from one another—it includes a bank credit risk premia. SOFR, in contrast, is a nearly risk-free rate based on repo financing of U.S. Treasury securities; it's not a purported rate like LIBOR.

Second, SOFR is also currently an overnight rate only; it's not a rate of multiple maturities. That could eventually change; the ARRC's Paced Transition Plan includes the development of a term reference rate based on SOFR derivatives. But right now, they don't exist. That could mean big operational changes for treasurers, who currently borrow at one month, three months, etc. For that period, LIBOR is fixed for them.

"There was some amount of predictability," noted Joseph Buonanno, partner with Hunton Andrews Kurth LLP. "But now, they'll have a SOFR rate that can change on a daily basis. So not only will you have to manage the adjustments that the banks notify you of on a daily basis, but you'll have to keep track of it yourself because you'll need to be much more careful about how rates are changing and what the volatility is in rates so you can continually adjust your funding mix. How is the daily adjustment to SOFR relative to the weekly or monthly adjustment to LIBOR?"

Buonanno believes that corporates will begin to hedge interest rate risk more frequently in the near future than they've traditionally done using ISDA derivatives. "A lot of corporates already do that to comply with all the Dodd-Frank Act rules to continue to trade derivatives on an OTC basis," he said. "But I think you'll see greater use of derivatives in the future."

What Treasurers Need to Do

Lee, Buonanno and MacLeod recommend that treasurers take a five key actions as they prepare for this probable shift from LIBOR to SOFR.

Take inventory. Understand where LIBOR exists within your organization. Take note of all your borrowing and funding commitments that are dependent upon LIBOR. Consider payroll loans, supply chain financing, factoring, asset based lending, in-house banking, etc. Figure out what your spreads and maturities are, and what you're going to need to refinance your contracts, and what the results of triggering existing fallback language will be.

Do your homework on SOFR. Learn as much as you can about this new rate and how it is performing relative to LIBOR. Figure out what that means for your own credit spreads, because credit spreads are based on risk, and each corporate is its own individual risk. Corporates need to compare themselves not only to businesses in the same industry, but also comparable benchmarks and credit spreads that they have historically tracked.

Consider the impact SOFR will have. Once you get your mind wrapped around SOFR, it's time to begin thinking about how transitioning to it will affect you. Consider the procedures you'll need to put in place to track SOFR on a daily basis. Contemplate whether or not you need to do a periodic analysis more often to optimize your capital structure.

Get your bankers to include fallback language in your agreements.

If you're doing a refinancing or are entering into an amendment for an existing credit facility, discuss SOFR with your bank partners and see if you can get fallback language implemented into the agreement if your loans extend beyond 2021. Banks may be willing to address the issue and include language that states if LIBOR goes away, the borrower and the administrative agent will agree on a replacement index. If you have the prime/alternative base rate as a fallback rate, you should probably look to renegotiate to a different reference rate or at a minimum have a clause on how a reference rate would be determined.

Get involved. Get feedback from your fellow AFP members and your bankers, and perhaps even reach out to the ARRC directly to help you anticipate upcoming challenges. There may even be opportunities to work with them and help make this a more seamless transition.

The shift away from LIBOR is an important development that AFP will be watching closely. Be sure to visit the U.S. Treasurers Guide for the Libor Transition at: view.ceros.com/afp/libor/



Common GROUND

U.S. corporate tax reform catches up to global trend

JOHN HINTZE

KEY TAKEAWAYS

- While the U.S. legislative system can make it challenging to enact tax legislation, other countries' systems of government tend to enable them to adjust their tax systems more readily.
- Until tax reform, the 35 percent U.S. corporate rate was the highest among the 30 countries with the biggest GDPs.
- The new relationship between tax regimes brings a host of variables into play that could significantly impact a company's operations and supporting financial structure, including depreciation deductions, capital expenditures and intellectual property.

Tax reform in the United States echoes a wider trend of tax changes worldwide that multinational corporations must keep in mind when they consider how provisions in the new U.S. law will impact their global businesses and financial structures. This is especially true now that significantly lower U.S. corporate taxes upset previously ingrained assumptions.

Tax reform around the world

Ernst & Young pointed out that 56 countries are rolling out or considering tax reform. According to Cathy Koch, E&Y's Americas tax policy leader, following the 2008 financial crisis, increased deficits across the globe led governments to try to raise revenues, through direct taxation or compliance. In recent years, as deficits have shrunk, however, it has become more important to attract corporate investment and create jobs, and lowering tax rates has increasingly been part of economic policy discussions.

France, for example, announced last September that it is lowering its general corporate income tax rate to 25 percent from the current 33.33 percent by 2022, and in December Belgium announced a corporate rate reduction to 25 percent from the current 33.99 percent. Meanwhile in the Americas, Colombia lowered its corporate rate in 2016 to 32 percent from 43 percent, although it raised its valued-added tax (VAT), and Argentina enacted comprehensive tax reform last December that will lower its corporate rate to 25 percent from 35 percent.

Koch noted that, while the U.S. legislative system can make it challenging to enact tax legislation, other countries' systems of government tend to enable them to adjust their tax systems more readily to meet current needs. In fact, it was uncertain whether it would come to pass through most of 2017, and the wide-ranging final bill was largely assembled and signed into law in three months.

Repercussions of lowering the corporate rate

Until tax reform, the 35 percent U.S. corporate rate was the highest among the 30 countries with the biggest GDPs. Now, excluding the U.S., that average rate is 26.7 percent, and U.S. corporate taxes, including the state-tax average, is a percentage point or so less than that, at about 25 percent, Koch said. She added that the average corporate tax for Organization for Economic Cooperation and Development (OECD) countries is about 25 percent.

"So the U.S. just got a lot better, especially relative to other countries, and a lot of people are reacting now," Koch said.

That's especially true for countries that have significant trading relationships with the U.S., and the implications are potentially significant for companies with cross-border operations or who may be considering them. Exhibit A is Canada, which for some time has had an average corporate rate of 27 percent, combining federal and provisional taxes. Now the average U.S. rate is a tad lower, and last year Canada actually went against the tax tide and actually increased taxes modestly for some private companies.

continued on page 16

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“The river used to flow one way, and now it’s going in the opposite direction, and that creates a number of foreseeable and, frankly, possibly unforeseeable results.”

Paul Seraganian, managing partner at Osler Hoskin & Harcourt, said that U.S. tax reform has essentially reversed long held tax-related assumptions.

“The river used to flow one way, and now it’s going in the opposite direction, and that creates a number of foreseeable and, frankly, possibly unforeseeable results,” Seraganian said. He added that notion applies especially to Canada because of its proximity and outsized trading relationship with the U.S., but similar dynamics are relevant to other jurisdictions as well.

Seraganian cited tax deductions as one example. If a company has the freedom to locate its deductions anywhere, it will harvest them in the jurisdiction with the higher tax rate. Until this year, companies operating on both sides of the border typically chose to maximize their deductions in the U.S., but in light of the new tax situation and other relevant factors, that may no longer be the case.

Now, for example, a company may decide that over time, it is preferable to centralize management in the U.S. and charge a hefty management fee to the Canadian company for U.S. services, because “it’s deflecting income at a higher rate in Canada and taking income inclusion at a lower rate in the U.S.”

Indeed, Seraganian said, the new relationship between tax regimes brings a host of other variables into play that could significantly impact a company’s operations and supporting financial structure, including depreciation deductions, capital expenditures and intellectual property (IP).

“If you’re moving intercompany items that generate deductions into Canada,

that largely means you’re moving income-producing factors to the U.S., whether it’s IP, IP management or other intercompany resources,” Seraganian said.

Canada is a very large country land-wise with a relatively small population of 36 million, and that may magnify the impact of U.S. tax reform on companies’ strategic planning. Michael Kandev, a partner at Davies Ward Phillips & Vineberg, noted the “constellation effect” of economic centers where people and companies converge. New York, for example, has long attracted financial and media firms, and Silicon Valley is a hub for technology firms, creating a virtuous circle that attracts still more firms and talent in those industries, even though taxes in those jurisdictions have been high historically.

Canada’s sparse population makes the constellation effect harder to achieve, but its significantly lower corporate rate was an effective counter measure and will be less so. Kandev noted that other countries with small populations, such as Ireland, have introduced low corporate rates to draw multinational corporations, and the Canadian government must be considering such an option, although so far it has said nothing publicly.

Predictions for the future

Kandev believes it would be unwise for companies to make rash moves based on U.S. tax reform, and he doesn’t anticipate a slew of Canadian companies inverting to the U.S., as many U.S. companies have done by moving to lower tax jurisdictions. The U.S.’s high national debt and unpredictable politics could very well result in corporate rates rising in the future, if not to previous levels. However, companies may pursue smaller changes.

For example, the historical approach was to have as little taxable profit in the U.S. as possible, to minimize exposure to the 35 percent+ corporate tax rate—minimal operations earning minimal profit.

“Now, a company might change its value chain to have more profit in the U.S.,” Kandev said. “So, for example, instead of selling remotely into the U.S. market, it goes to a full distributorship model with inventory, and marketing and sales people in the U.S.”

Expansion to ASIA

AFP to open office in Singapore

AFP is expanding into Asia and will open an office located in Singapore in 2019. The Singapore office will support AFP's growth across Asia-Pacific and increase its ability to help organizations in the region transform the way they engage and train their finance and treasury staff as well as help practitioners reach their greatest career potential. AFP's Singapore office will be led by Himashi Soriano, Regional Director, APAC.

Soriano holds an MBA from The Johns Hopkins University and has worked at AFP for more than 13 years in a variety of roles. As AFP's Regional Director, APAC, she will oversee operations, build customer relationships and develop partnerships within this region. Soriano also will hire and lead a team of sales, services and support staff.

"The corporate finance profession is rapidly transforming, and nowhere more so than in Asia. In particular, finance professionals in Singapore and Hong Kong realize the need for more training, education and certification. That has led to unprecedented demand for AFP's products and services—and, in turn, the need for AFP to open a regional office to better serve local financial professionals," said Jim Kaitz, president and CEO of AFP.

"I can't think of anyone more qualified to lead our efforts in Asia than Himashi Soriano," Kaitz continued. "Her experience in business development, sales and marketing, as well as her strategic vision and leadership qualities make her the perfect choice to lead AFP's team in Asia."



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The Replacements

Questions about SONIA and SOFR complicate LIBOR transition

JOHN HINTZE



KEY TAKEAWAYS:

- Liquidity in SONIA and SOFR, considered necessary for the benchmarks to succeed, remains a trickle.
- SONIA and SOFR settle overnight; borrowers only know their final interest payment when the transaction expires, compared to a forward-looking term rate like LIBOR, in which borrowers know at the start of each term exactly what they will owe at the end.
- The longer market participants continue to price transactions over LIBOR instead of one of the RFRs in the works around the world, the more important fallback language becomes.

The transition away from the London interbank offered rate (LIBOR) is picking up steam in the United States and UK, with the UK's Sterling Overnight Index Average (SONIA) taking the lead in terms of being the first LIBOR replacement benchmark used to price a cash product. However, both SONIA and the secured overnight funding rate (SOFR) in the U.S. are still taking baby steps, and liquidity in the derivative products considered necessary for the benchmarks to succeed remains a trickle.

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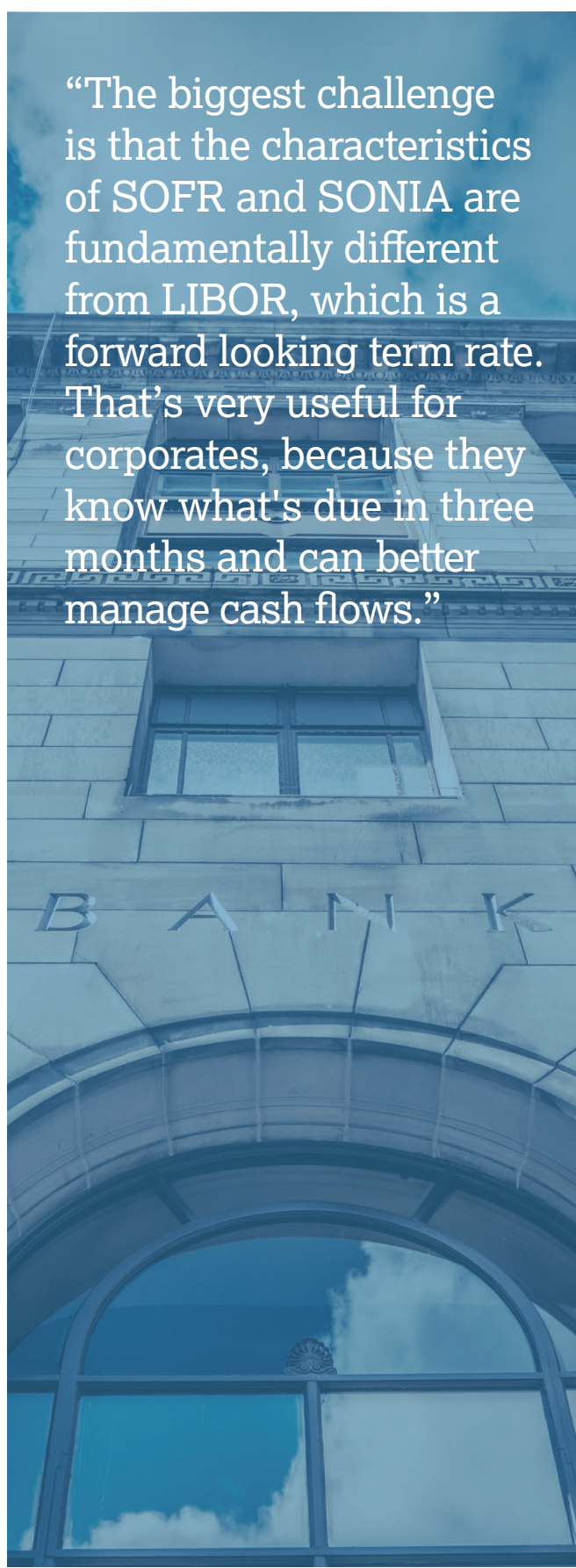
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“The biggest challenge is that the characteristics of SOFR and SONIA are fundamentally different from LIBOR, which is a forward looking term rate. That’s very useful for corporates, because they know what’s due in three months and can better manage cash flows.”

The SONIA/SOFR dilemma

SONIA has actually been an active benchmark for 20 years. The Bank of England (BOE) launched a revamped version of it in April that now includes bilaterally negotiated unsecured sterling transactions as well as brokered ones, fortifying it as a risk-free reference (RFR) rate and LIBOR replacement. In early June, the European Investment Bank (EIB), a nonprofit lending institution that aims to further European integration and social cohesion, pursued a five-year floating rate notes offering anticipated to reach at least £250 million and ending up selling £1 billion, or \$1.3 billion.

The offering was a year in the works, and it is unclear the extent to which an offering by a nonprofit organization will become a template for SONIA-based offerings from other financial institutions, nonfinancial corporates or government bodies. Nevertheless, there does appear to be demand for the bonds; Bloomberg reported in July that the bond’s spread by 2.5 basis points, to 32.5 basis points over SONIA.

So far, financial products tied to the SONIA and SOFR risk-free rates (RFRs), so called because they’re designed to remove the bank credit risk inherent in LIBOR, have yet to emerge for corporates. Sarah Boyce, associate director, policy and technical for the Association of Corporate Treasurers, said that the trade group’s ongoing survey of corporate constituents has made it clear so far that SONIA-based loans and derivatives meeting their needs are not yet available. “Banks haven’t started offering anything yet,” she said.

According to Boyce, that’s not terribly surprising given the chicken-egg dilemma they face, since engaging in RFR-based debt or derivatives is highly risky unless there’s liquidity, and that liquidity simply hasn’t arrived yet. That’s not to say it won’t, and perhaps soon, since the financial regulators and major financial institutions see the writing clearly on the wall for the LIBOR benchmark.

That was discussed at length in the Commodity Futures Trading Commission’s (CFTC) July 12 Market Risk Advisory Committee meeting. Tom Wipf, vice chairman of institutional securities at Morgan Stanley and a member of the Alternative Reference Rate Committee (ARRC), which devised SOFR, noted that submissions of the interbank borrowing rates by major banks to calculate LIBOR have fallen off significantly. In fact, banks will no longer be obligated to make those submissions at all after 2021, and there are concerns they may stop altogether, leaving legacy LIBOR financial products without a benchmark to calculate interest payments.

Regulators, who have recently been putting more pressure on financial institutions to speed up their transition away from LIBOR, have also expressed worries. Those issues include finding ways to convert the RFRs from a backward-looking rate to a forward-looking one, and creating contractual language for new and existing financial products to enable them to convert to a different benchmark rate, should LIBOR no longer be viable.

The RFRs are look-back rates because they settle overnight, and borrowers only know their final interest payment when the transaction expires, compared to a forward-looking term rate in which borrowers know at the start of each term exactly what they will owe at the end.

"The biggest challenge is that the characteristics of SOFR and SONIA are fundamentally different from LIBOR, which is a forward looking term rate," Boyce said. "That's very useful for corporates, because they know what's due in three months and can better manage cash flows."

A BOE working group is expected to publish a white paper discussing ways to make RFRs forward looking. Queried when it will be published, a BOE spokesman said "in due course."

Looking ahead

Term RFR products are expected to arrive sooner on the derivative front, notwithstanding the EIB's offering, if only because derivative markets are more flexible and, compared to corporate loans and bonds, there's far more liquidity. In fact, one- and three-month futures contracts based on SONIA and SOFR began trading in April across the CME, LCH and ICE futures exchanges. The daily volume so far has been erratic, with each of the exchanges seeing spikes where several thousand contracts have traded. The trade volume most days is below 1,000 contracts, although the average appears to be creeping higher.

Post summer doldrums, volume in the futures contracts may increase significantly. LCH has cleared some SONIA swaps since 2009 and continues to do so, and it started clearing SOFR swaps on July 16. The CME said it will start clearing SOFR swaps in September, though it has yet to announce clearing SONIA swaps.

Liquidity in SOFR futures and cleared swaps will be critical for banks building RFR-based term products, a point noted repeatedly at the CFTC meeting, and those derivative products will play a key role in ushering in RFR-based cash products. Corporates regularly use swaps to adjust their mixes of floating-

and fixed-rate debt, and loans are often structured with hedge requirements.

"In many of those loan agreements, it shouldn't be dismissed that there are hedging requirements—often a covenant with terms that govern what that derivative needs to look like," said Robert Mangrelli, director on Chatham Financial's global real estate hedging and capital market team, at the CFTC meeting.

Transitioning away from LIBOR is anticipated to be easier on the derivative side than the cash side, in part because the International Swaps and Derivatives Dealer Association (ISDA) is developing amendments and protocol to its swap definitions by first half 2019. Adherents to those definitions should be able to efficiently adopt standard fallback language in their derivative contracts.

If LIBOR or one of the other interbank offering rates (IBORs) permanently ceases to exist, "it is vital that market participants have certainty that their existing IBOR contracts will fall back to a robust and clearly defined reference rate," said Scott O'Maglia, ISDA's chief executives, at the CTC meeting.

The longer market participants continue to price transactions over LIBOR instead of SONIA, SOFR or one of the several other RFRs in works around the world, the more important such fallback language becomes as 2021 approaches. The fallback issue is particularly problematic for cash products, which make up \$10 trillion of the estimated \$200 trillion of financial products based on LIBOR, because those deals typically are bespoke and their contractual language will have to be adjusted case-by-case. The Loan Market Association and other trade groups are working on documentation language that will be helpful, but corporates will have to review each of their loan and derivative transactions to ensure adequate fallbacks are in place.

"For banks it will be a huge challenge, because language between loans isn't consistent, and to some extent they will have to renegotiate and repaper every single loan," said Boyce, adding that corporates may want to address this issue with their banks sooner rather than later.

Without a clearer idea about what RFR-based term products will look like, however, there's not much bankers can say at this point. Trevor Wood, a partner at Pillsbury Winthrop Shaw Pittman, noted that the longer it takes to create such term products, the greater the number of legacy LIBOR products that will have to be dealt with. "We have to adjust those transactions' fallback language, but if we don't know what the reality is yet for new deals, how do we change the old ones?" he said.

DIRE Predictions

Why were Brexit forecasts so wrong?

BRYAN LAPIDUS, FP&A



When British voters decided in July 2016 to leave the European Union, virtually every governmental economic unit, bank, and private forecast predicted a disaster for the UK. The reality:

- The number of people working in the UK stands at a record high
- New orders for manufactures are at the highest level in a generation
- Employers are struggling to find enough staff
- Equity investments are at record highs
- Housing prices are at record highs
- Foreign investment is at an all-time high.

“For a country supposedly crawling out of the ruins of the Brexit vote, the UK has been having a strikingly good year so far,” Fraser Nelson wrote in *The Wall Street Journal*.

Added Brexit minister David Davis, “Every forecasting model on the performance on the British economy post the referendum by every major organization, the banks, the government organizations and, indeed, international organizations has proven wrong.”

The question, then, is this: Why were so many forecasts about Brexit so wrong?

For finance professionals, market forecasts are a key starting point in developing our own business models, so a miss translates into a miss in our own forecasts. Here are a few theories on why the forecasts were so off; it may be the interaction of these as well as others are in play.

Theory #1:

Macro forecasting is hard

Forecasting something as big and complicated as an economy is hard; market forces are the byproduct of countless small decisions by individuals and are difficult to forecast. However, the Congressional Budget Office noted in 2015 that on average, its two-year forecast of GDP growth missed the actual rate by 1.4 percentage points. It also noted that this was significantly better than Wall Street consensus projections and other governmental outlooks. A 2000 IMF paper noted that, globally, forecasters predicted only two of 60 recessions.

On this theme, there is also a theory that economists were aiming for a redemption after largely missing that last great macro-economic event, the 2008 financial crisis. Here was a visible black swan, an opportunity to predict a significant new trend and redeem the profession, and so they trained their analysis on the big impact to come. Except that it did not arrive.

Theory #2:

Fear and bias behind the numbers

We must consider whether there was a bias in the forecast based on a fear of such a major change. Many of the forecasts came from institutions with an integrative world view, including the International Monetary

Fund and the UK government in power at the time. What looks like such a significant change in outlook must have severe ramifications, right? The economists predicted a panic-based reduction in citizen spending—which did not happen. Cynics and supporters of Brexit dub the Remain in the EU campaign “Project Fear” and claim the forecasts were the triumph of political motivations rather than well-executed economics. Jacob Rees-Mogg, British MP, said, “Many forecasts are honestly wrong, but unfortunately many of the forecasts around Brexit were politically motivated and have undermined trust in the probity and impartiality of those making them.”

Theory #3:

Trend-breaks are hard to predict

Why did so many miss the recession of 2008? Why do people think trends will continue? Forecasting in calm waters is easy, but identifying the black swan event, or the turn in the market, is notoriously difficult. Prognosticators of many stripes look back on the “mega trends” that have changed the world in the past fifty years and want to get ahead of the next one. Brexit had the appearance of being the harbinger of a mega trend, a rare case when a potential turning point was visible to all, but perhaps it was just an event. Not all indicators are right, as Nobel Prize-winning economist Paul Samuelson quipped when he noted that “the stock market has predicted nine of the past five recessions.”

Theory #4:

Limitations of models

Models are driven by inherent assumptions to model what we think we know, but there may be other factors under the surface that are not visible in a calm environment. Major shifts suddenly “awaken” these other factors and their changes may be outside of the model.

Steven Baker, the Brexit minister, said the civil service analysis “does not yet take account of the opportunities of leaving the EU.” Perhaps there are other items gaining strength, or perhaps the correlations or strength of certain factors are incorrect at this time.

Most forecasts were created by models and simulations in which various quantitative inputs become fodder for calculations. But what if other factors predominate?

A Cambridge University review of the UK Treasury models came to several conclusions about variables that did not behave as predicted. Interest rates went down rather than remain unchanged. The value of the British pound dropped initially, which boosted exports (it has since recovered as the economy remained healthy), and several other assumptions that simply were “wrong.”

Theory #5:

Sticky qualitative factors

Most forecasts were created by models and simulations in which various quantitative inputs become fodder for calculations. But what if other factors predominate? London was predicted to lose 100,000 sophisticated, high paying financial jobs. But it seems that only 3,000 jobs have been lost. Duplicating the most powerful financial center in Europe is hard—it has advantageous time zone, language, fintech, and is a desirable place for the financiers to live. Deutsche Bank reversed itself and instead of moving 4,000 employees out of London, it expanded its footprint at a new headquarters in The City.

Theory #6:

Success is relative

It is possible that despite the positive numbers, the UK is missing out on even larger growth opportunities. Christine Lagarde, head of the IMF, discussed this in December when releasing updated projections for UK's economy in 2018. “With the global economy as it is [every major economy growing simultaneously], and the space the UK has in it, it should be rolling at 6 per cent, [but] it's at 2.1 per cent,” she said.

Theory #7:

Short-term versus long-term

It is possible that the forecasts were correct, but we simply have not arrived at that point in time. The Brexit deal has not been finalized so substantive changes have not taken place yet. In fact, the UK and EU extended the transition period until the end of 2020, buying more time to work out a deal and relieving pressure at the moment. The UK government recently released three scenarios that could happen depending on what a new relationship with the EU would look like, with a GDP impact ranging from negative 2 percent to negative 8 percent.

It is possible that the dire forecasts will come true at some point when the deal is enacted, or that the “moment of reckoning” will be delayed again.

The details matter

The terms of the Brexit can make a big difference in the ultimate impact. Nelson notes several places where the separation anxiety may be overstated: Britain could negotiate a free-trade agreement with the continent. If negotiations lead to an impasse, they could be hit with a 4.2 percent tariff under World Trade Organization rules. Some jobs may move as subsidiaries to London headquarters, but information flows freely through borders. The Europeans have an incentive to negotiate a punitive agreement with the UK to dissuade others from leaving, but they also may have an economic incentive to negotiate better terms that facilitate trade.

The lessons for FP&A

How should we react to macro-economic forecasts? Here are a few ideas:

- **Consider how much weight and impact these variables have on your forecast.**

Start by looking backwards to determine the correlation between these macro variables and your business and try to determine the causality. Then, conduct a sensitivity test around each variable to determine whether you are significantly dependent on these independent variables. To the extent possible, reduce the exposure of your forecast to these variables

- If the market variables do have an outsized impact on your forecast, **plan for multiple outcomes in macro variables** rather than a single outcome.
- **Do not look for precision out of these variables**—a 10 basis-point difference (i.e., 3.2 percent versus 3.1 percent) is a level of specificity that is impossible to predict, and therefore should have limited impact on your model. Rather, look for direction in the numbers in order to have a point of view to drive your business decisions
- Macro variables drive micro changes to your markets; **understand the lag time before your market will react to macro changes.**
- Be a fast follower and **quickly react to actual changes in your market rather than economic forecasts.** If economic data is truly a random walk, where the next data point is random but follows from the previous step, then the ability to quickly update with actual data is almost as good as an accurate forecast
- **In using reported actuals, understand that these data points often are revised several times** before being finalized. For example, there are usually three readings to unemployment and GDP numbers (and even years later, they are subject to re-calculation), so do not place too much weight on the first reading.
- **Make your own market variables.** The advice from Zachary Karabell, a past speaker at AFP's Annual Conference and author of "The Leading Indicators: A Short History of the Numbers That Rule Our World," is to find more meaningful numbers and data that are specific to your own situation. There is more data available today, collected more quickly and reliably, than many older, known measures. He quotes the "Billion Prices Project," which measures inflation by reading the prices of goods and services online. You can find more meaningful data by reading vehicle traffic at shopping malls, number of cargo ships built in dry dock, or the height of oil tanks storing crude in China.



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Energy BOOST

TIMOTHY JOHANSON

Why you need
an energy price
risk management
program

Let me ask you a few simple questions about your business or organization:

- Do you know how energy costs affect your bottom line?
- Do you understand how your energy costs shift over time?
- Does your sales process allow you to recoup changes in energy prices?

If you answered “no” to one or more of these questions, it might be time to consider diversified energy price risk management strategies.

Why? Managing energy price risk can help you protect your margins, manage budgets more effectively, minimize overall cash flow volatility and remain more competitive in volatile commodity price environments. Businesses with a long-term view on enterprise value want to manage these risks.

Let's take a closer look at the reasons for proactively managing energy price risk and how it can benefit your business.

Protecting margins

Probably the No. 1 concern among risk managers is protecting margins. Effective energy price risk management can help you shield your profit margins from adverse market moves, which may be driven by factors well outside your control (weather, for example). Imagine signing a long-term sales agreement for a product with substantial margin that is put in jeopardy due to a hurricane or some other unforeseen event.

Securing budgets

An energy price risk management strategy can also help you achieve your pricing goals through a more predictable and profitable approach. Risk managers who work in more established industries like food production are more sensitive to fluctuations in energy costs. They need to make sure they meet expectations when it comes to sales. For instance, if one of your organization's significant energy costs is diesel fuel needed to ship product across the country. You want to protect margins, but you also want certainty with a strategy that will allow you to manage to a certain budget level over time. So, you agree to a budgeted number for that diesel fuel (let's say it's \$3.20 per gallon) for the year. By setting and agreeing to that price, you're now managing to a consistent budget and giving yourself a better chance to meet corporate expectations when it comes to quarterly and annual revenue and profits.

Minimizing volatility

One of the chief concerns of any risk manager is managing volatility. Mitigating price swings to pave

the way for a smoother path forward should be one of the key goals of any price risk management strategy. Let's use the previous example. You need to set a price for diesel fuel, and you're going to buy within a certain range. Ideally, you want to take the volatility out of the equation by eliminating the possibility of buying diesel fuel for more than, say, \$3.50 a gallon and less than, let's say, \$2.90 per gallon. Now, you know with absolute certainty, that you're going to pay between \$2.90 and \$3.50 a gallon for diesel fuel in the coming year. As a result, you've just reduced the number of outcomes you might face versus if you just took the straight market price.

Staying competitive

Every business wants to remain competitive—when costs are low and high. A good energy price risk management strategy should help you price your energy costs near or around the market average to keep you competitive. The key is to keep pricing at a competitive level when energy costs rise—this allows you to better versus those who might not be hedging their energy costs. Let's go back to our diesel fuel example one more time. In the last six months, the price of diesel has increased 40 percent. Companies that haven't been hedging diesel fuel costs are going to pay 40 percent more when they go to market versus companies that are hedging and maintaining those more profitable margins. That's how managing energy price risk can help you stay competitive.

Enhancing enterprise value

One more reason a strategy like this makes sense—and it's a reason that flies beneath the radar a bit—it can enhance enterprise value. Managing price risk through hedging diversification can result in a more stable cash flow versus having volatile P&L swings, help you minimize volatility to organizational value and better manage to budgets. For example, if your business is even considering selling two to three years from now, price risk management can help you develop a more stable earnings stream, which can help you determine a value price from a stock perspective.

Putting a plan in place

We have walked through the benefits of managing energy price risk. But how does one get started? One of the most effective ways to begin, is something we call the 'DDC Framework.' This framework guides you as you build your energy risk management plan. It includes three basic elements:

1. Diversification

Like an investment portfolio, it's important to make sure you have a diverse set of tools to implement your strategy. Diversification allows you to benefit from market volatility while optimizing the return from hedging costs. You should consider component price, flat price, exchange options, cash price and customized OTCs to achieve this.

2. Discipline

Trading and volatile markets come with a lot of emotion. How can one take some of the emotion from the job? Discipline. My goal when I work with clients is to free them up from the 'hoping prices come back to my objective' attitude and move them to a place where they have the confidence to act when needed. Here are a few examples of

ways to insert discipline into your own energy risk management strategy:

- Maintain strict target discipline
- Make decisions based on the current market and not past positions
- Scale into price and consider covering percentages
- Protect and enhance margins
- Set a plan and stick to it.

3. Controls

It's important to have a series of controls in place to ensure processes and regular events are completed and deliverables are executed. A clear reporting structure, regular stress testing and a way to measure results are all key to an effective energy risk management plan.

Effective energy price risk management can help your company protect margins, better manage to budget, minimize volatility and stay competitive. You can also stay in front of the competition by taking the events that usually take others by surprise.

Timothy Johanson is director, energy risk management, for Cargill.

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KEY TAKEAWAYS:

- Corporate practitioners are looking for a bank champion that will represent them inside the bank and challenge the standard response.
- Treasury professionals want a banker who works to earn respect and trust every day. Some questions, conversations, piloting solutions and challenges are suited for a trusted banking partner.
- Because of the close working relationship they have the dynamic between treasurers and bankers may turn into personal relationships. But this “friendship” is not a guarantee of future business.

Relationship ADVICE

Understanding the treasurer/banker dynamic

LAUREL EGAN KENNY AND RAYMOND VINES, CTP

The best relationships between bankers and treasury professionals are built on mutual trust and respect. But that's just the beginning. The dynamics that exist between the best and worst banker/treasurer relationships are much more complex. Corporate treasury and finance practitioners are looking for so much more from their bankers than a traditional banker/client relationship, including advocacy, education, and partnership. The following are a few additional and expanded ideas about the treasurer/banker dynamic, based on our conversations with corporate clients over several years.

Searching for a champion

To start, corporate practitioners are looking for a bank champion. What does this mean? Treasury professionals are looking to work with that rare partner who will represent the client inside the bank and make the impossible possible.

Additionally, corporate practitioners want to work with a partner that is willing to challenge their bank's standard—and the standard response (which is often “no” or “we can't do that”). In other words, the best bankers not only know how to work the system—they are also respected enough by internal colleagues to do so.

Bank champions are often open to discussion with their clients, and to exploring additional options, including offering up seemingly unlikely resources, including one's network, and the whole bank, not just parts of it. In short, a true bank partner makes things easier, not harder, for the treasury professional.

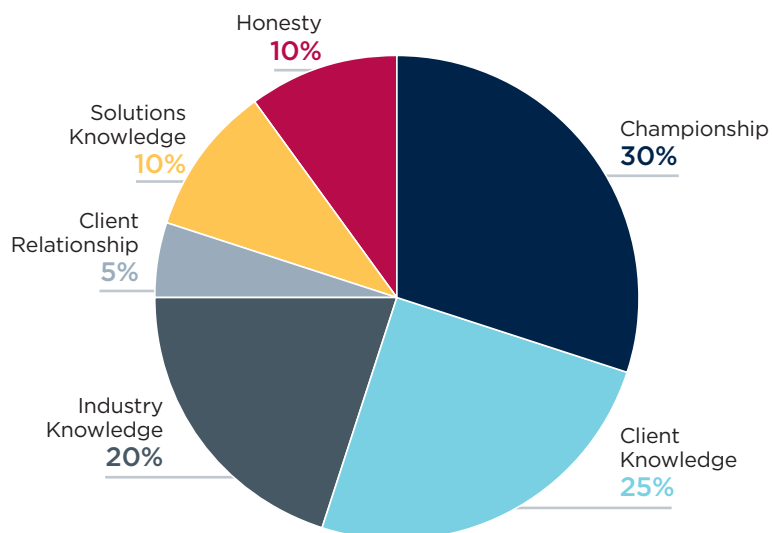
Respect and trust

Treasury professionals want a banker who works to earn respect and trust every day; in other words, a valued business partner. While they may seek out other corporate colleagues for their experience, ideas and advice, some questions, conversations, piloting solutions and challenges are better suited for a trusted banking partner. For some treasury professionals, that call is to the same banker over and over—sometimes even when it involves questions about another bank's solutions. In this case, knowing a banker's number by heart is a good thing.

Treasurers want their bankers to know them, including their environment, industry, and customers. They appreciate those who proactively listen and learn from them—and can anticipate their needs and make recommendations. The most thoughtful banking partners get to know their clients on a deeper level, gaining knowledge of their clients' customers and their environments, including understanding how and when their customers pay.

Practitioners appreciate bankers who at minimum understand the nuances of their profession and industry. They are delighted when a banker brings actual experience in their industry—enough to share best practices and make recommendations based on their knowledge of specific needs and their experiences with other clients, interfaces with industry systems and the impacts of industry-specific mandates. Speaking the practitioner's language goes a long way. After all, treasurers don't see it as their job to educate their banker on the industry and best practices—they believe it should be the other way around. Ultimately, the relationship between treasurers and their

Factors important to corporate treasury and finance practitioners in working with their banker



Source: Turningpoint Communications

bankers should be one where each other's value is estimated and appreciated and where confidence in each other is intact.

Relationship dynamics

Because of their close working relationships, the dynamics between treasurers and bankers may turn into personal relationships—even friendships. Treasury professionals prefer to do business with people they like.

The most astute bankers know where the relationship begins and ends and that the nature of the job may involve intense periods of working evenings, weekends, and even holidays. This can be countered by spending time outside of the office—at a sporting event, concert or educational forum, to brainstorm alternative solutions and discuss best practices.

Yet it is important to recognize that this “friendship” is not an entitlement, nor a guarantee of future business. What's more, bankers should be cautious of offering up certain corporate perks because of corporate guidelines and/or federal regulations and be cognizant of the fact that sometimes the cost of fun translates to more work or a hardship for the client.

Great expectations

Finally, treasury management professionals have high expectations for their bankers. While they don't expect their bankers to be experts on everything, it would be a mistake to send a newer sales officer to meet with a seasoned treasury professional because they may know more about the treasury products and the bank's solutions than the salesperson. Additionally, if a salesperson is unable to answer more than a few questions and a second conversation is needed, they may feel like their time was wasted.

It is okay to bring a business partner along if there is a deficiency, but it's best that each person has an active role in the meeting. Otherwise the corporate practitioner may feel outnumbered. For relationship meetings, these are best set ahead of time to maximize the practitioner's time by making

the meeting most efficient—setting and confirming mutually agreeable objectives, agenda and attendees beforehand and following up with the practitioner on outstanding items promptly. Practitioners do not appreciate meeting only when a price increase is on the horizon.

Bankers' knowledge and awareness of their and their organization's competencies and deficiencies are also critical. No one bank is the best at everything, and salespeople should not attempt to offer a laundry list of services in an effort (most likely unsuccessful) to be all things to each client. Treasury professionals, through networking, can quickly learn which banks are best at the solutions they need. Knowing a bank's areas of expertise (and conversely, the areas where the bank falls shorter) must be known in advance. A bank should take the time to understand their treasury clients' needs so that they can better customize their offerings and provide solutions to the treasurers' business challenges. Also, new elements/requests from treasurers will likely arise as the business relationship advances; these requests should be evaluated separately to be certain the bank has the acumen to carry them out.

Cultivating the relationship

The banker-treasury professional relationship is dynamic and deserves attention. For a banker, taking the time to better understand the intricacies of each relationship and the unique client environment will be rewarded. Corporate treasury practitioners are seeking partnerships that can help them to be better at their jobs, make things easier and work within their client environment. As such, they need a trusted partner who is invested in their success.

Laurel Egan Kenny, MSCM, MBA, is founder and president and Raymond Vines, CTP, CPA is CFO of Turningpoint Communications, a national treasury management-focused marketing communications and business development firm.



SMARTER B2B RECEIVABLES

A strategic
approach to smarter
B2B receivables

SETH BLACHER

No matter how basic or complex your business-to-business (B2B) receivables operation, no matter whether your payments mix is all checks, all electronic or somewhere in between, there are usually challenges—and room for improvement.

Regardless of their size or industry, companies I talk with tend to share a common set of challenges:

- Managing short pays and discounts
- Invalid or bad CTX records that cause exceptions
- Receiving, matching and posting remittances from a payer portal
- Matching ACH payments with detached remittances
- Matching wire remittances with invoices

To gain the full benefit of moving from paper to electronic payments, start by understanding your challenges. Talk with your AR clerks. Study your processes. Find out how many days it takes to post a payment. Once you identify the problems, you can set out to find the solutions.

Most businesses embrace ACH on the payables side in order to automate AP processes. But many, if not most, of those same businesses prefer not to receive ACH payments because they can wreak havoc on AR processes. One told me, “With the transition to ACH from lockbox, auto posting has dropped from 75 percent to 46 percent.” When you receive electronic payments and then apply and post them manually, it really defeats their promise and purpose.

To gain the full benefit of moving from paper to electronic payments, start by understanding your challenges. Talk with your AR clerks. Study your processes. Find out how many days it takes to post a payment. Once you identify the problems, you can set out to find the solutions.

Develop a strategy and set goals

The key to success is not to attack your processes piecemeal. Ask your customers to pay by ACH instead of check without putting in place a system for posting ACH receivables, and you may create chaos. Expect your staff to manually match electronic dollars with separate data, and they may never finish. Instead, develop a holistic AR improvement strategy and set goals to achieve it.

Common goals include reducing days sales outstanding (DSO), recording cash more quickly, improving working capital, and building an automated application and posting process. You may want to move your customers from paper to electronic payments. You may want to accommodate business growth without adding headcount in the AR department.

State your goals as specifically as possible. For example: Increase electronic payments from 40 percent to 75 percent of total receivables. Achieve an 80 percent hit rate for straight-through processing, auto-application, and online matching of payments.

Once you’ve established your goals, be sure to communicate them to leadership. You’ll need their buy-in later.

The 3 C’s and an E of automated AR posting

If you want to automate B2B receivables, you need to understand what I call the three C’s and an E of automated accounts receivable posting.

C1: Capture the data

C2: Clean the data

E: Manage exceptions

C3: Connect the data to the dollars

There are three key components of the data in a receivables transaction:

1. The dollars, or amount of the payment
2. The advice that comes with the payment or independently
3. The original invoice record or bill

Today you’re probably capturing these in various places. With an efficient, automated AR solution, these all will be funneled to a single data collection channel.

Captured data is then cleaned. This step differs on the front end depending on whether payments come with or without data attached.

When payment and data arrive separately, data can be matched to a payment based on criteria such as sender email address, ACH Company ID, or dollar amount. This process is called re-association.

When electronic payments arrive with incomplete or partial data—which seldom happens—the data may not be in the required format. You can create templates or business rules for these payments, so the next time the payment comes in, it is reformatted automatically and posts directly to your accounting system. Wire

Standard Entry Class code for ACH payments. Your bank should be able to provide you with letter templates that explain the payment types you prefer and—more importantly—how customers should send information with their payments.

remittance information has no structure. You may want to ask wire remitters to send an email with the invoice detail ahead of the payment. This in combination with a bank solution can automate posting for this troublesome payment type.

Matched data (payment and remittance detail) is compared against your open AR or invoice records. That matching process will yield one of three potential outcomes. The first and most desirable is a perfect match. The second is a fixable error—such as a bad invoice number or incorrect payment amount—that's presented to you for correction. Lastly, there are payments and data that don't match and can't be fixed. These are true exceptions that may require additional research or should be sent to collections.

Finally, the clean data is connected to your system for posting. All payments that have information available or have been approved can be electronically posted into your enterprise resource planning (ERP) or accounting system. If you're currently unable to post this data automatically, an alternative information reporting solution should be available to use in manual posting processes.

Your goal is to automate as close to 100 percent of electronic payments as possible, leaving only the few exceptions to be handled manually. With the right solution, electronic payment STP should equal or exceed what you're experiencing in a lockbox environment today.

5 Steps to receivables optimization

You've identified your challenges, set your goals, and you understand the process for automating receivables. Now it's time to implement your B2B receivables improvement strategy step by step.

Step 1: Analyze your current payments mix.

Calculate your current volume of checks and electronic receivables in both dollar amount and quantity, then compare these numbers with your ideal goals.

Step 2: Be proactive about electronic receivables.

Take time now to plan exactly how to manage your growing volume of electronic payments. What will change in how you present, receive, and post when payments go digital? Work with your bank and your customers to ensure you receive timely and complete information in electronic formats compatible with your systems or any bank solutions you might adopt.

Step 3: Plan for partial payments.

Unforeseen circumstances beyond AR's control always will occur, but forethought and system enhancements can minimize the exceptions these situations often cause. For example, when goods arrive damaged or in the wrong quantity, B2B customers may remit partial payment and apply proprietary deduction codes to their invoices. Taking time upfront to map these customer-specific codes to your organization's AR system will speed cash application and help build effective customer relationships.

Step 4: Strengthen your data matching.

Matching failures occur when electronic payments arrive with little or no remittance information and when remittance data comes by a separate channel, such as email. This impedes straight-through processing. Communicate to your customers about industry-standard remittance formats that can streamline cash application and posting, such as the Corporate Trade Exchange (CTX) Standard Entry Class code for ACH payments. Your bank should be able to provide you with letter templates that explain the payment types you prefer and—more importantly—how customers should send information with their payments. Help customers understand that they also benefit from a smooth receivables process through improved credit availability and greater access to the goods or services you provide.

Step 5: Consolidate data streams.

When every payment method requires its own work flow, staff efficiency slows and cash flow suffers. Instead of processing separate data files one at a time, integrate your receivables, and post them all electronically. Today's technology makes it fast and easy to consolidate all your check, ACH, wire and card transactions into a single file that's primed for straight-through processing.

From problem to solution

The typical company takes up to six days to post a payment, according to research by the Aberdeen Group. With receivables automation, you can post electronic payments in one day, two days, or less. I know a mid-size company where cash application took one to four

days before they automated the process. Now they're posting all cash by 10:00 a.m. daily. The right receivables management service will enable you to post from 50 percent to 90 percent of electronic payments—or more—with no manual handling whatsoever. And the more payments you can handle electronically, the lower your cost per payment received.

Far too many receivables managers view electronic B2B payments as a problem when, in fact, they can be the solution that speeds your processes, streamlines your workflows, and increases your working capital. That transformation happens when you automate the handling of electronic payments from receipt to posting.

Seth Blacher is senior vice president, head of receivables product strategy for treasury management at Wells Fargo.

Tronox Targets 90 Percent ACH Auto Posting

Marguerite Versacci is assistant treasurer for Tronox, a \$2 billion global chemical company. She manages the company's banking relationships and works closely with AR and AP departments to ensure effective use of banking tools with the company's ERP system.

Tronox's payment mix was 20 percent ACH and 80 percent check when it embarked on an initiative to move from paper to electronic payments. This changed its payment mix to 70 percent ACH/wire and 30 percent check. Versacci thought this would allow Tronox to receive funds more quickly and save on processing fees.

"I thought it would be awesome! However, I didn't connect the dots on how this would impact cash application," she said.

Because most electronic payments lack the remittance details that come with checks, Tronox's auto hit rate took a steep decline.

Versacci set a goal of 90 percent straight-through processing and auto-application of ACH payments. To achieve this goal, she implemented an automated receivables solution offered by the company's bank. As the chart below shows, the auto hit rate improved nearly 70 percent within two months of implementation, on a fast track to her 90 percent goal.

Payment Breakdown	Volume Before	Before %	Volume After	After %
Total ACH payments	281	100%	278	100%
Exceptions	156	56%	71	26%
STP, auto-application, and online matching	125	44%	207	74%



Still Deciding

According to new AFP research, tax cuts have yet to yield big corporate spending

AFP RESEARCH DEPARTMENT

Eight months after the Tax Cuts and Jobs Act of 2017 was signed into law, many corporate treasury and finance executives are uncertain about spending the windfall, according to new research by AFP.

The 2018 AFP Liquidity Survey, underwritten by State Street Global Advisors, found that 40 percent of respondents anticipate no changes in spending at their companies in the wake of corporate tax reform. About one-fourth of companies (26 percent) plan to pay down debt, and 24 percent plan to repatriate foreign cash, or have already repatriated these funds. Of those organizations planning to repatriate funds held abroad, 27 percent have already done so.

“While treasury and finance professionals welcomed corporate tax reform, they continue to be strategic and cautious and are choosing to wait for the right opportunity to spend their tax cut savings,” said Jim Kaitz, president and chief executive officer of AFP.

The Most Important Objective of Organization's Cash Investment Policy

(Percentage Distribution of Organizations with a Written Cash Investment Policy)



Source: AFP

Cash investment objectives

Safety continues to be the most valued short-term investment objective for 65 percent of organizations, slightly lower than the 67 percent in last year's survey. Fully 31 percent of survey respondents indicate their organizations' most important cash objective is liquidity—higher than the 30 percent reported in both 2017 and 2016, and the largest share of survey respondents citing liquidity as the primary investment objective since AFP began tracking the importance of organizations' cash investment policies.

As safety and liquidity remain the top two investment objectives for companies, yield continues to rank a distant third. This year's survey results reveal that four percent of survey respondents cite yield as the most important investment objective for their organizations.

Current allocations

The typical organization currently maintains 49 percent of its short-term investment portfolio in bank deposits. This allocation is a four-percentage-point decrease from 2017 and the lowest share since 2011.

The overall majority of organizations continue to allocate a large share of their short-term investment balances—an average of 75 percent—in safe and liquid investment vehicles: bank deposits, MMFs and treasury securities. MMFs currently account for

19 percent of organizations' short-term investment portfolios, a smaller share than 21 percent reported in 2017 but larger than the 17 percent reported in 2016. The shift to Government funds is 13 percent, similar to the 14 percent reported last year.

Investment mix shifts

A majority of treasury and finance professionals (59 percent) do not anticipate a change in the investment mix of their companies' short-term investments as a result of the Tax Cuts and Jobs Act or other macroeconomic factors. Eleven percent project there will be a shift in investment mix and nearly one-third is unsure (31 percent).

The anticipated changes in investment mix are more likely to be observed Prime/Diversified money market funds (MMFs) and Government/Treasury MMFs, with 24 percent of survey respondents indicating they expect an increase in each of these. About 20 percent anticipate an increase in Commercial Paper and Bank Deposits.

Money Market Reform

The SEC Reforms that took effect in October 2016 imply that Prime MMFs now operate with a floating NAV and government MMFs operate with a stable NAV.

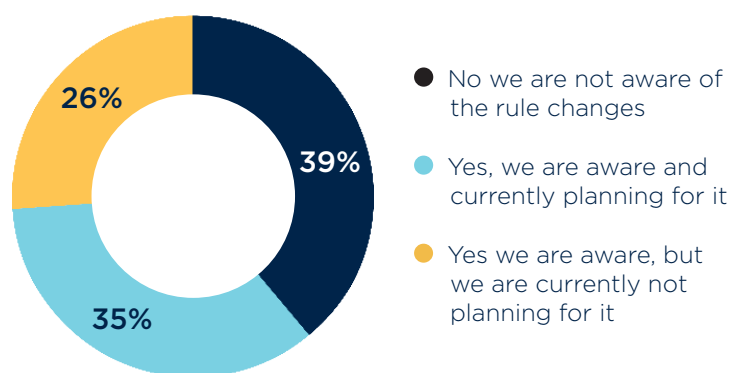
In light of the reform, 50 percent of organizations do not have plans to resume investing in prime MMFs. Fully 23 percent of treasury and finance professionals report

that the NAV will have to prove that it does not move much before their organizations resume investing in prime MMFs, and another 23 percent would resume investing in Prime funds if the spread between Prime and other compelling investment is significant.

In 2008 the G20 group of countries agreed to reforms for money market funds. The European Commission proposed legislation in response in 2013. The culmination of this is new regulations on money market funds in Europe. The regulations will take effect in January 2019.

Nearly 40 percent of treasury professionals are unaware of the changes in the rules that will impact European MMFs. Thirty-five percent are aware of these changes and planning for them. The remaining 26 percent, while aware of these changes, have no plans in place to deal with the new rules. It's important that companies talk to their fund providers to understand changes to their fund lineup.

Awareness of Rule Changes that will Impact European MMFs
(Percentage Distribution of Organizations that Invest Outside the U.S. in European MMFs)



Source: AFP

Foreign allocations

Those organizations with cash and short-term investment holdings outside of the United States manage their cash holdings similarly as they do their domestic ones. Some 61 percent of non-U.S. cash holdings are maintained in bank-type investments, including certificates of deposits, time deposits, etc. This is a 10-percentage-point

decrease from the percentage reported in last year's survey. Another 21 percent are held in MMFs and government-type securities—higher than the 16 percent who reported investing in these vehicles last year. There does appear to be a shift away from banks towards MMFs.

Treasury doing its job

Treasury departments continue to provide a layer of stability for their organizations' cash liquidity needs. Safety remains paramount to treasury and finance professionals. Treasury professionals also are inclined to invest in vehicles other than bank products, with commercial paper, government money market funds and Treasury securities and prime funds being the likely alternatives.

Cash balances are growing faster within the U.S. than outside the country. The rationale behind growing cash balances is primarily to improve operating cash flow. At the same time, companies that decreased their cash flow over the past 12 months did so for good reasons: increased capital expenditures; paying back/retiring debt; acquisitions; and increased share repurchases. With cash balances increasing, organizations don't expect their investment allocation to vary going forward.

Will we see a difference in how cash and short-term investments are being managed a year from now? If financial leaders feel confident about the economic environment they might begin to manage their cash and short-term investments differently and feel comfortable taking some risks. With the Federal Reserve considering two interest-rate increases in the remaining months of 2018, organizations might want to focus more on yield and loosen their hold on safety of their investments.

AFP conducted the survey of nearly 640 corporate treasury and finance professionals in April. Results are available at www.AFPonline.org/liquidity.

BULL and BEAR



What does AFP 2018 speaker Ron Insana really think about bitcoin and blockchain?

IRA APFEL

A highly respected business journalist and money manager, Insana began his career at the Financial News Network in 1984. He later joined CNBC in 1991 and was named one of the Top 100 Business News Journalists of the 20th Century.

Insana, who will speak at AFP 2018 in November in Chicago, recently spoke to AFP Conversations podcast host Ira Apfel about blockchain, bitcoin, and how he got his start in television—"Beats the hell out of me," he said.

“Blockchain I think will probably transform the way in which financial transactions are done, but as soon as the Fed decides it’s gonna launch a digital dollar, you can kiss cryptocurrencies goodbye.”

Ira Apfel: How do you decide what to write about? What to talk about?

Ron Insana: After 34 years of doing this, you kind of know where to look for stories or issues or market developments that might not be getting enough attention that could be signals of things to come. Many years ago I wrote a book called, “The Message of the Markets,” and sometimes the markets themselves could be behaving strangely and might be indicative of some future event. I always look at that to see if there’s any inherent signal sending that’s coming from any particular market and then try to alert people to that.

Ira Apfel: You started as a production assistant back at the Financial News Network. Why did you get into television out of college?

Ron Insana: Beats the hell outta me. I was a film major in college. So it was not on my list of things to do. But coming out of film school in 1984, I was having a rough time finding a job on the entertainment side of the business, and a very good friend of mine from high school had started at Financial News Network about six months prior, and he was the assignment editor there. I called him up and interviewed for an entry level position and got a job. So FNN hired me my first week out of college. Freelance position, production assistant, \$50 a day no benefits. I had no idea what they did, I’d never studied economics, markets, business. Didn’t need that experience for the job that I had, which involved ripping wires and occasionally getting coffee.

Ira Apfel: How did you go from production assistant carrying coffee and tearing out wires to being a managing editor and then eventually an on-air presence?

Ron Insana: Very circuitous route, actually. I got laid off after four months at FNN. I’d gone back to the vitamin store where I worked in college, and four months after that my friend me and asked if I wanted his job as a producer, he was going over to Investors Business Daily. So, I took that gig. In May of 1985 the two anchors called in sick on the same day, and I was the producer at the time. I put myself on the air for two updates. And so, with no experience in broadcast journalism and no experience in economics, I was on the air not knowing what I was saying and not knowing what I was doing. But doing it full time.

Ira Apfel: That must’ve been terrifying.

Ron Insana: Part of it was, yeah. But it was a really interesting deep dive, because the people around me were talking in this language that I didn’t fully understand, and it became more and more intriguing over time as we were trying to translate the language of Wall Street to the language of Main Street. And that piqued my curiosity and so I became an instant student of the topic.

Ira Apfel: At AFP 2018 you’ll be moderating a panel about alternative intelligence, robotics, and blockchain. What do you think is different about this new technology?

Ron Insana: I’ll separate robotics out for a moment and talk more about blockchain and cryptocurrencies first. I’m not sure that these things are yet as transformational as some would suggest. Blockchain technology’s very interesting from the financial markets and financial industry perspective in that it allows you to have permission-transparent networks that create binding contracts that are legitimate and will be kind of rock solid in there construction.

Cryptocurrency to me is a by-product of that, and it may or may not have legs. I don't think that bitcoin and other currencies have the requisite characteristics of money. You know: unit of account, storehouse of value, medium of exchange... they haven't proven themselves to be reliable in that regard. The volatility's too great. The amount of illicit activity that goes on in the cryptocurrency world leaves a lot to be desired when it comes to considering these things as reliable forms of money.

Blockchain I think will probably transform the way in which financial transactions are done, but as soon as the Fed decides it's gonna launch a digital dollar, you can kiss cryptocurrencies goodbye. And that's the same for the European Union and for Switzerland which is now considering a cryptocurrency of its own, and other countries will do that. Governments rarely give up their ability to coin money. And so I suspect that, from a regulatory perspective, digital currencies and cryptocurrencies probably don't have a long shelf life, and I would dispute that bitcoin in particular is gonna be worth a million dollars per coin some day as some are suggesting.

So I'm skeptical about that and I think bitcoin, for now, is a trading vehicle. I think it's been a speculative bubble. I think that's fairly well proven at this juncture.

Now robotics, artificial intelligence, machine learning, and these new technological developments, I think the jury's out as to how they affect the economy overall. When you talk to the detractors, there are people who say that 45 percent of all low-skill jobs will be replaced by robots and then other, even skilled jobs, when it comes to like, asset management or other types of intellectual endeavors will be replaced by AI and machine learning.

I think that remains to be seen. The futurists that we've spoken to over the past couple of years say, just like at the beginning of the industrial revolution, or just like when the internet started, more jobs are created than you can dream of, because you can't think of what the spin off effects are of these new technologies. So, there are some human jobs that can't be replaced. There are some new jobs that will be created as we've seen in every revolutionary period. And some people will be displaced possibly permanently.

Ira Apfel: How do you see treasury and finance executives reacting to all the new technology?

Ron Insana: I'm not sure that the CFO function is really that much involved with it except for spending budgets for how they're going to use productivity enhancing developments like robotics, AI, and machine learning. On the other hand, with respect to blockchain, I think all CFOs, treasurers and other individuals are looking at how blockchain technology is gonna effect the flow of financial transactions and how much it'll reduce the cost.

And so I think every company has to look at that and look at its payment systems to determine whether or not it's gonna be useful and more efficient to employ blockchain, both in financial transactions and in contract terms. Because a lot of paper-work is going to be rendered obsolete by blockchain because you'll have the ability to create binding transparent contracts that everyone can see.

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ANDREW DEICHLER

Providing a Safe Haven

AFP Aware attendees to help Chicago residents in need



One of the most fulfilling and popular events at AFP's annual conference is the AFP Aware community service project, sponsored by BBVA Compass. Every year, AFP Aware gives back to the region where the conference is taking place by partnering with a local nonprofit organization.

AFP Aware is centered on three guiding principles: workplace, community and environment. The community service project will provide AFP 2018 attendees with an opportunity for personal growth, while making meaningful connections with other members.

"This year marks our ninth consecutive year of sponsoring AFP Aware," said Karen Grekstas, Executive Director of Treasury Management Solutions and Services for BBVA Compass. "We are very proud of the commitment we've been able to make to this special event."

AFP Aware's guiding principles align with BBVA Group and BBVA Compass' Corporate Responsibility principles. "We believe in creating opportunities for everyone," Grekstas added. "Everyone deserves a bright future and giving back to the community does help to make a brighter future for all, one kind act at a time." She invites attendees to bank it forward and join this year's AFP Community Aware events.

A Safe Haven Foundation

This year, AFP Aware is partnering with A Safe Haven Foundation (ASHF), which provides shelter and services to Chicago-area residents who are struggling with homelessness, addiction, abuse and other issues. The nearly 25-year-old nonprofit operates a network of over 36 multifamily locations for permanent and senior affordable housing, as well as a temporary housing program that includes meals, case management, drug and alcohol treatment, healthcare, and job training and placement.

ASHF is the brainchild of Neli Vazquez Rowland and her husband Brian Rowland. Following Brian's struggle with alcohol addiction, the couple decided to use their funds to open a small recovery home for individuals facing similar issues, and the organization has been growing ever since. In FY2017, ASHF served over 5,000 individuals.

"Since 1994, A Safe Haven has been on the tip of the spear and on the front lines of identifying the trends and in addressing and solving the complex issues and root causes of poverty, drug and alcohol and homelessness epidemics that we have seen grow by leaps and bounds over the last two decades," Vazquez Rowland said. "Since then, at A Safe Haven, we are humbled to be considered 'disruptive' as we lead the way to becoming one of the most robust, comprehensive and integrated and multi-disciplinary models in the country and a frequently recognized trailblazer and pioneer for converging the fields of social and economic development strategies. Today, we serve over 5,000 people a year, including mothers with children, youth, nonviolent ex-offenders and military veterans."

ASHF offers classes for GED test preparation, resume building, relapse prevention, financial and

computer literacy, health, and nutrition. The organization also has apprenticeships in welding, landscaping and culinary arts, as well as vocational training in housekeeping, security and customer service.

"They become certified in the field, and we have access to different partners that hire directly from us, or we provide them with employment opportunities within our organization to get them the work history they need to be more employable to the outside world," said Angela Lathen, executive assistant to the president at ASHF.

Additionally, ASHF is the only homeless shelter in Illinois that has a Veteran's Resource Center onsite. "We partner with the VRC to provide our veterans with onsite access to all the services they would get through the VA," Lathen said. "So it's really a one-stop shop for all of our clients; all of our services are in one building."

The offsite AFP Aware project will take place at ASHF's main building, which houses 400 of its clients. Volunteers will assist in painting hallways throughout the facility, as well as minor kitchen services, such as food prep, serving and clean up.

For the onsite project, volunteers will assemble 900 hygiene kits that will be given to homeless individuals throughout the greater Chicago area. The kits include soap, shampoo, deodorant, razors and other toiletries. Prior to creating the kits, volunteers will also be writing letters to ASHF clients to offer them some words of hope and inspiration.

"We look forward to sharing our vision, mission and unique model with

our guests as they come to work side by side with us to help amplify our individual and collective efforts on behalf of those we serve," Vazquez Rowland said. "Thanks again to AFP Aware for partnering with us to take the time to do well by doing good!"

PaintFest

As always, AFP Aware will also feature PaintFest, sponsored by BBVA Compass. Stop on by booth 1041 in the exhibit hall to paint pre-drawn murals provided by the Foundation for Hospital Art. The murals will be donated to children's hospitals across the country. The foundation's mission is to give comfort and hope to hospital patients, families and staff by providing them with murals at no cost.

SAVOR... Chicago

AFP Aware also aims to be environmentally conscious, partnering with vendors that provide eco-friendly services. This year's exclusive caterer at AFP 2018 is SAVOR... Chicago, which serves organic and locally sourced food. The caterer has created a 2.5-acre rooftop garden at the West Building of the McCormick Place convention center where seasonal harvests such as beets, kale and carrots are grown.

Wellness Zone

Last but not least, AFP 2018 will also feature the Wellness Zone, as part of an effort to help attendees maintain their work-life balance. Stop by booth 1247 in the exhibit hall for some tips on eating healthy with a busy schedule, relieving stress in the workplace and boosting your energy throughout the workday.

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- Build models to make decisions
- Respond to real-world scenarios
- Apply your models to finance functions



For more information and to register for one of the community service events, visit www.AFP2018.org

See the Full List of Workshops at www.AFP2018.org/Precons



STAFF WRITERS

AFP 2018 Pinnacle Award

Uber, OpenText and BMC Software named 2018 Pinnacle finalists

BMC Software, OpenText and Uber Technologies were named finalists for AFP's 2018 Pinnacle Award. Sponsored by MUFG, the Pinnacle Award, established in 1997, recognizes excellence in treasury and finance.

Finalists were selected by a jury of treasury and finance professionals. Decisions were based on the entrants' innovative solutions, which helped their treasury and finance operations run more efficiently and effectively. The AFP Pinnacle grand prize winner will be announced on November 4 at AFP 2018 in Chicago.

"AFP is proud to honor the 2018 Pinnacle Award finalists," Jim Kaitz, AFP president and CEO said. "The treasury and finance teams at BMC Software, OpenText and Uber truly set the global standard for their peers and their profession with innovative solutions that serve their organizations as well as their customers."

MUFG will make a \$10,000 donation to a charity of the winner's choice. Ranjana Clark, Chief Transformation Officer, Head of Transaction Banking Americas, and Bay Area President for MUFG and Jim Kaitz, will host the award ceremony at AFP 2018.

"MUFG is proud to sponsor the Pinnacle Awards to acknowledge innovation and achievements among treasury and finance professionals within the industry," said Ms. Clark. "MUFG supports the AFP's ongoing commitment to education and recognizing excellence in treasury and finance as exemplified by these Pinnacle Award finalists."

“AFP is proud to honor the 2018 Pinnacle Award finalists. The treasury and finance teams at BMC Software, OpenText and Uber truly set the global standard for their peers and their profession with innovative solutions that serve their organizations as well as their customers.”

Finalist submissions

BMC Software's entry focused on financial planning and analysis. The software maker wanted to increase sales of new software licenses and maintenance contracts. To better measure progress and help the sales team increase revenue and cross-selling opportunities, the finance team created a new metric—New Bookings vs. Renewal Bookings. The home-grown solution, called bSMART, leverages Tableau and demonstrates how BMC's finance team partners with the business to drive revenue.

OpenText's submission centered on treasury management. The company has grown rapidly through acquisitions, leading to more than 400 bank accounts in over 120 banks—many not fully integrated into the global treasury center. Moreover, manual processes dominated. In response, the treasury team launched a process that automated payments, statements and cash management; rationalized banks and accounts; and created a global cross-currency pooling structure to improve liquidity management.

Uber's submission enhanced payments for its drivers. Uber previously paid drivers once a week via ACH, which was inconvenient for users. Its new “Instant Pay” process works on demand, every day via debit card. The new process pays drivers before riders' funds are deposited—a conscious choice by the company to place employees above the bottom line.

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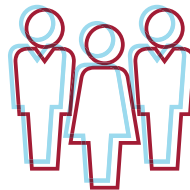
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Know Your OPTIONS

Amended derivative accounting affords benefits for forward and option hedgers

IRA G. KAWALLER

KEY TAKEAWAYS:

- Early adoption of the amended guidance for derivatives and hedging transactions may create some attractive consequences for companies that use derivatives.
- The amended guidance allows for “component hedging” in connection with commodity exposures.
- Rather than realizing “excluded items” in earnings on a market basis, entities are now free to report these effects in earnings during the horizon of the hedge, on any rational basis.



As a rule, economic considerations should drive the decision to hedge—or how much to hedge—but accounting considerations inevitably come into play because of the way the hedging activity is reflected on financial statements.

Whenever new or amended accounting guidance comes along, the new rules may justify rethinking business strategies. A case in point arises in response to the amended guidance for derivatives and hedging transactions, ASU 2017-12. Though released in August of last year with implementation not mandated until after 2018, early adoption of the guidance is permitted and easy to institute; and early adoption may create some attractive consequences for companies that use derivatives (or contemplate using them) in connection with managing interest rate risk, currency exchange rate risk, or risks associated with commodity purchases or sales.

The new opportunities that this article addresses derive from the revised treatment relating forward points and option time values. These rules have wide applicability to virtually any hedging entity that uses forwards, futures or options in their hedging programs.

Background

When hedgers use futures or forward contracts, the typical economic objective would be to lock in a price or rate relating to a future transaction, where, otherwise, the price would be uncertain. The accounting requirements for hedge accounting, however, reflect somewhat of a different orientation: Rather than considering effectiveness on the basis of satisfying this economic objective, the prerequisites for hedge accounting require that derivative gains or losses must closely offset the earnings impacts of the risks being hedged. In fact, these two objectives are different. Locking in a price isn't necessarily the same thing as offsetting a given exposure.

The following example illustrates the issue: Suppose a company needs to buy widgets in the future. Assume today's spot price for widgets is \$100 and the forward price (appropriate for the intended purchase date) is \$110. If the purchase occurs as expected, buying the forward contract would lock in an effective price of \$110, irrespective of where the spot price for widgets happens to go. Two caveats: (1) the forward contract terminates at its maturity when the then-prevailing forward price will necessarily converge to the spot price, and (2) the risk being hedged bears no basis risk (i.e., the deliverable asset underlying the forward contract is identical to the source of the exposure.)

SCENARIO 1 –

Widget prices rise to \$125: In this case, the widget buyer pays the market price, \$125, to buy the physical widgets from the supplier, but the forward contract price rises from \$110 to \$125 for an offsetting gain of \$15. Combining these effects yields an effective price of \$110 ($= \$125 - \15) for the widgets.

SCENARIO 2 –

Widget prices fall to \$75: Again, the widget buyer pays the market price—this time \$75—but this time, the forward price falls from \$110 to \$75 for a loss of \$35. Combining the purchase price of \$75 with the loss of \$35 again yields the same effective price of \$110 ($= \$75 + \35).

It should be clear that the same effective price will be realized under any price scenario, subject, again, to the two previously stated caveats.

The problem for financial reporters is that the “offsets” that FASB seems to be requiring aren’t satisfied. The change in the spot rates (i.e., the risk being hedged) is \$25 in both scenarios shown, but the hedge results are \$15 and \$35, respectively. Both ratios ($\$15/\25 and $\$35/\25) fall considerably outside the traditional 80 percent to 125 percent boundary conditions required to authorize hedge accounting.

FASB squares this circle with a band-aid that permits forward points to be excluded from the assessment of hedge effectiveness. Excluding the starting forward points (valued at \$10) from the forward contract allows us to view the derivative’s gain or loss as being \$25 in both scenarios—precisely equal to the spot price change. With this perspective, we can now assert that the hedge offset is “perfect.” It’s perfect, however, only because of a semantic election that allows us to assert that the derivative is offsetting a particular risk exposure, even when it really isn’t.

An analogous pair of examples could be constructed for an option hedge. In these cases, though, the unequal offsets derive from option time values rather than forward points. Thus, if the option and the exposure share the same underlying spot prices, the allowance to exclude option time values again allows us to conclude that such hedges could be perfect in an accounting sense.

One critical difference between a forward hedge and a purchased option hedge is that with forward hedges, the forward points could be either beneficial or adverse, depending on whether the entity is buying the forward or selling it and whether the forward price is at a discount to the spot price or at a premium.

- Buying a forward at a premium is adverse in that the hedge serves to raise ex post purchase prices.
- Buying a forward at a discount is beneficial in that the hedge serves to lower ex post purchase prices.
- Selling a forward at a premium is beneficial in that the hedge serves to raise the effective sales prices.
- Selling a forward at a discount is adverse in that the hedge serves to lower the ex post sales prices.

The notion that it’s expensive to hedge with forward contracts is patently wrong in half of the possible applications! In those cases, the market effectively pays the hedging entity to lock in a price. It’s different for purchased option hedges. With a purchased option hedge, the hedger realizes (or should) that the decay of the option’s time value will always foster explicit costs independent from any value changes relating to the risks being hedged.

What’s new?

Two things relevant to forward hedges and purchased option hedges have changed in the amended guidance.

First is the allowance to define “component hedges” in connection with commodity exposures. Critically, in order to hedge a component of a commodity price risk, that component must be explicitly identified in the purchase or sale order. Thus, if you are able to structure purchase or sales contracts tied to the same underlying price referenced by the hedging derivative, the new guidance allows us to consider this hedge to be “perfect.” Without this liberalization, many entities that have tried to hedge the full price risk of commodity exposures—which is the legacy requirement for commodity hedges—have found the variability of the basis implicit in those commodity prices to be so excessive as to rule out hedge accounting altogether. Those

proscriptions could be substantially curtailed; but, as mentioned above, qualifying for this new treatment requires contractually setting these commodity prices in a manner that specifically ties them, formulaically, to the underlying price variable specified in the hedging derivative.

The second issue has to do with the accounting treatment for items that have been excluded from the assessment of hedge effectiveness – i.e., forward points and option time values. Under the prior guidance, if those items were explicitly identified as being excluded from the assessment of hedge effectiveness—which often was the only way to assure that hedge accounting wouldn’t be prematurely terminated—changes in market values of those excluded elements would be reported in current earnings. This treatment necessarily fosters some degree of unintended and undesirable earnings volatility. For forward hedges, this effect would generally be slight, as forward point amounts are typically inconsequential. For option hedges, on the other hand, the size of the excluded items’ earnings effects could be much more substantial.

The big accounting rule change in this area is that rather than realizing these effects on a market basis throughout the holding period of the derivative, reporting entities are now free to report these effects in earnings during the horizon of the hedge, on any “rational” basis. That means that companies will now be able to allocate these effects linearly, smoothing out some measure of income volatility.

Hedging anticipated debt issuances

As attractive as this new ratable method may be, in certain cases, it might be preferable to avoid this treatment and apply an alternative method for some cash flow hedges with options. Specifically, in certain cases, FASB allows hedgers to defer earnings recognition of time value effects if the terminal value method is used for assessing hedge effectiveness. If the entity qualifies for and applies this treatment, the full gain or loss of the derivative would be posted to other comprehensive income, with reclassification of those effects, in certain cases, over a period well beyond the date the hedge terminates.

One of the most attractive situations for this treatment applies to hedges for anticipated


issuance of debt. Consider, for example, the case of a company that intended to issue five-year fixed-rate, say, in the next four months. Here, the company would be exposed to the risk of rising interest rates between now and the issue date. While the most popular hedge for this exposure would likely be a forward starting swap, a swaption might be a particularly interesting alternative.

In this context, a swaption is simply an option to enter into a pay-fixed/receive-variable swap contract. It would serve to assure that the effective funding costs be limited to some worst-case (maximum) fixed interest rate, dictated by the swaption’s strike price. Although the entity may elect to exclude the swaption’s time value and realize this cost during the period preceding the funding, a more appropriate choice would be to apply the terminal value method for assessing hedge effectiveness, in which case the full gain or loss of the swaption would initially be recorded in OCI, but the reclassification process would occur over the entire funding horizon. Spreading these costs over the longer period (via the terminal value method), as opposed to the shorter period (via the time value exclusion method) would likely make this strategy much more palatable.

Conclusion

As a rule, economic considerations should drive the decision to hedge—or how much to hedge—but accounting considerations inevitably come into play because of the way the hedging activity is reflected on financial statements. The most recent changes allow many hedging situations to show lower income volatility than the presentation dictated by the pre-amendment rules. These changes would likely be seen as resulting in an earnings presentation that more closely reflected the intended economics of the hedging activity than that which arose under the pre-amended guidance. The changes should also motivate many who may have shied away from hedging with derivatives (or hedging with particular types of derivatives) to give those situations a second look.

Ira Kawaller is a managing director at HedgeStar, a consulting firm that specializes in derivative-related strategies, financial reporting, and expert witness services.



5 Keys to Creating a Data Life Cycle Approach to FP&A

DOUGLAS S. YEUNG, CPA

It is hard to believe, but there was a time when FP&A professionals complained about the lack of data with which to perform detailed analysis of their businesses.

Fast forward 10 years. Companies are collecting more and more data through improved financial systems, data warehouses, and a general shift into e-commerce where all sorts of data are captured through direct interactions with customers. But how can FP&A professionals take advantage of this trend to play a strategic and integral role in their businesses' growth?

Asking the above question means re-thinking the role of FP&A in an organization beyond financial metrics, and affirming that FP&A personnel have the skills and acumen to help define overall business direction and new growth opportunities.

By applying the data life cycle framework, a response to this new abundance of data can be framed by asking these questions:

What kind of data is most relevant to the business?

For FP&A professionals, the primary source of data are financial data focusing on P&Ls and balance sheets. However, as data become more voluminous and diverse, the first step is to identify and agree with your business the ones that are most important, such as key performance indicators (KPIs) or metrics you include on your balanced scorecard.

How to access the data?

Most FP&A professionals can obtain financial data through enterprise resource planning systems (ERPs) such as Oracle Financials and SAP. However, to analyze revenue or cost drivers, you may need to access data stored in enterprise data warehouses, and extract business intelligence via software tools like IBM Cognos, Oracle Business Intelligence Suites and Microsoft SQL/Power Pivot.

How to analyze the data?

With the data in hand, linking revenue and cost drivers to actual financial performance is the next, and likely the biggest, challenge. This is where FP&A can add strategic value to the business - while data retrieved can be analyzed from an operational perspective, interpreted as KPIs, and can provide valuable information to the business, the same data can also be used to identify inefficiencies that affect financial performance.

How to present the data?

After collection and analysis, it is crucial to present your findings in a concise and understandable way. Data visualization helps audiences understand your message in a simple way, and can prompt discussion and actions, such as changes in the field, new areas for funding, or a move toward certain products or a new geography. The ability to lay it out clearly for your audience is crucial to your success.

How to track the data?

FP&A should also track the data and provide feedback to the business on performance. Initial metrics identified should be reviewed and refined as the business changes, so that the business and finance can fine-tune their focus on what actually drives performance.

So what are some concrete steps that FP&A professionals and their teams can initiate immediately?

Staff your team accordingly:

Traditional FP&A functions are usually comprised of accounting professionals, with strong background in accounting and controllership. FP&A managers usually focus on developing their staff in business acumen, financial analysis, and business partnering skills. However, given the more intensive use of data, FP&A professionals must further their skills in data analytics and visualization also. Furthermore, besides focusing on candidates with strong financial acumen, managers should also consider candidates with programming, data analysis, and strong statistical skills with curiosity in developing the business acumen needed to interface with other teams.

Upgrade your team's data analytical skills:

While it is ideal to have a mix of data analysts and financial analysts in the FP&A team, that transformation will take a longer time. As you ramp up, training for your existing team members will be crucial to success. Developing the skillsets can take either more of a generalist or specialized approach. FP&A teams traditionally are organized either by function (e.g. revenue analysis, cost analysis, etc.) or by product or geographic regions. Therefore, you can arrange for specialization in different data tools, e.g. Tableau/dashboards, data retrieval/SQL, or hard skills like Excel models and database programming. Not only will it elevate your team's analytical capabilities, but it will also serve as additional development opportunities for retention and career development.

Develop a "scorecard" mindset:

If business acumen was important before, it is even more important now. Your team has to understand the financial implications of actions taken by business leaders, speak the same language, and have the same level of understanding about core business drivers. Being able to understand and participate in discussions that involve non-financial KPIs for the business, and also demonstrate an understanding of how those indicators can affect the bottom line, are where FP&A professionals can shine. In practice, it means taking additional steps to analyze the operational KPIs in relation to revenue or cost, or finding relationships of drivers within your P&L. For example, how do you segment your revenue by customer demographics and relate online spending to revenue generated by that consumer segment? The abundance of data now should enable FP&A professionals to develop more strategic insights.

Lead discussions through data visualization:

One unique FP&A value proposition is the ability to link up and look at all parts of the business holistically. The importance of data visualization means that FP&A professionals will also have to develop skills in presenting that holistic view to clients in a concise and engaging manner. Data visualization is not about PowerPoint skills, but the ability to strip down information into simple but meaningful forms that prompt the right questions and decisions.

Establish regular reviews to improve performance tracking:

Businesses are never static, and even though the strategic direction of the company should not change regularly, an evolving business environment means the team will have to adjust tactics dynamically. FP&A can take the lead in conducting regular reviews and identifying areas of improvement by assessing different metrics and providing feedback to the business.

So, how should FP&A managers approach the above needs? One approach is to convene a task force with members from finance and the business to establish the basic framework of what to track and how to measure performance. Prioritizing time and resources for this exercise will always be a challenge, so senior management support is crucial.

Another focus area is in training, so that the FP&A team is equipped with the skillset to take advantage of this shift. FPA& managers can also improve the reach and productivity of the finance team, and make it more scalable, by taking a systems focused approach instead of focusing on just increasing headcount.

Finally, the most important aspect is to develop a strategic mindset among the entire FP&A team. The FP&A team should not look at the business just from a finance standpoint; instead, FP&A professionals will have to reinvent ourselves as part of the business team, with the ability to understand key business drivers, and become owners of the business as much as being stewards of the company's financial well-being.

Douglas S. Yeung, CPA, is the founder of Epiteelligence Consulting in Singapore.



DATA vs. Information

How effective is
data visualization?

RANDALL BOLTEN

KEY TAKEAWAYS:

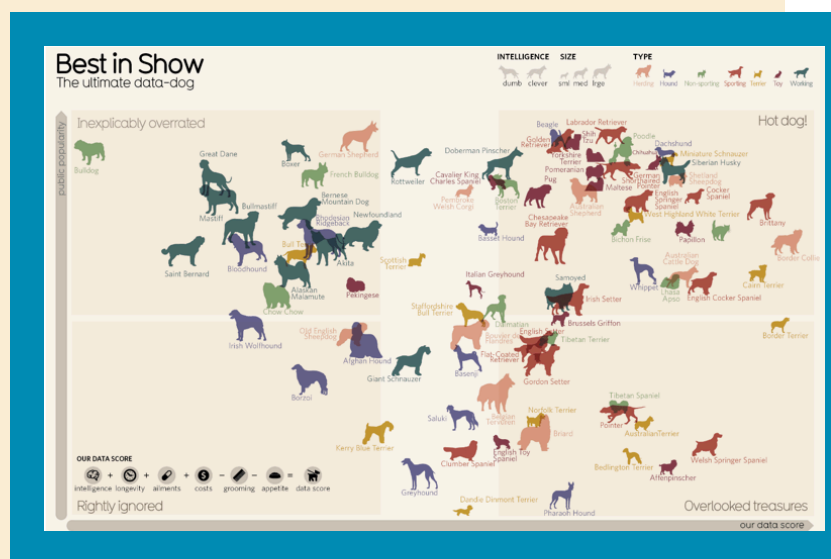
- Decision-makers may not be absorbing the information we present them with as easily as we think they are.
- Presenting a large amount of data can get in the way of making a point strongly.
- There is a difference between data and *information*.



A tale of two graphs

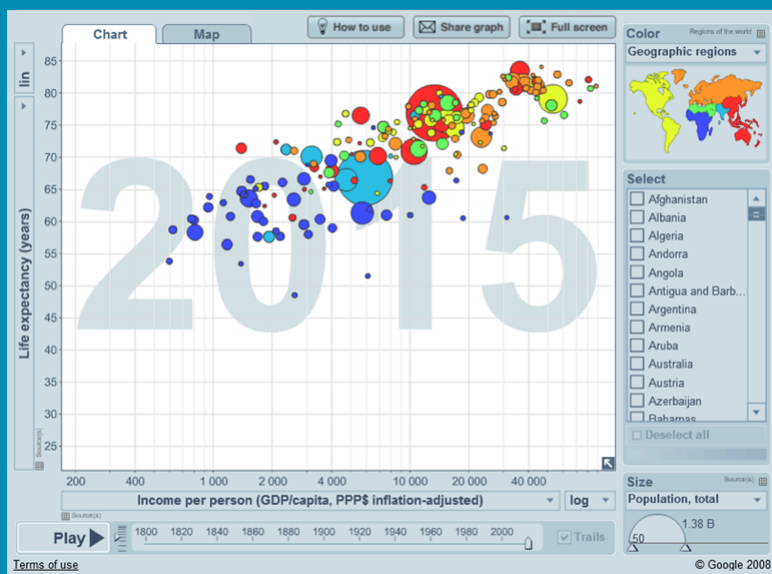
To illustrate my point, let's take a look at two graphs. The first graph below, called "Best in Show," is one of numerous imaginative, gorgeous, graphs found on "Information Is Beautiful," a website created by David McCandless, a leading apostle of data visualization.

This is a sort of “Gartner Magic Quadrant” for dog breeds. Each breed is positioned along the vertical axis in accordance with the breed’s popularity, and along the horizontal axis in accordance with its “datadog score,” a metric that is basically a weighted average of attributes such as lifespan, intelligence, and cost of ownership. Each data point indicates



the breed's size (by the element's size), type (its color), and intelligence (left- or right-facing). And each quadrant has a clever name (e.g., "overlooked treasures," for dogs in the lower-right-hand quadrant).

Next is a graph from the Gapminder, a Swedish website focused on informing people—and correcting misconceptions—about world development. This graph has been famously featured in a TED Talk and a much shorter BBC presentation by Hans Rosling, one of Gapminder’s founders, who unfortunately passed away in the last year.



This graph shows each country's per-capita GDP along the horizontal axis and its citizens' life expectancy along the vertical axis. This type of graph is called a bubble graph – basically a scatter graph where each data point is sized in proportion to some metric, such as (in our example) each country's population.

What did you absorb?

Now, here's your audience participation exercise. Do this first for one of the above two graphs, and then repeat the exercise for the other:

- Study the graph carefully, focusing on what you think the graph's key takeaways are, or should be. Take as long as you want.
- Cover the graph (or turn away from your screen/monitor).
- Write down the key things you learned about the information you were presented.

What did you just learn? My sense is that if you're a reasonably astute observer, you learned from the Gapminder graph that there is a clear correlation between per-capita income and life expectancy. You might also notice fairly close regional groupings—for example, most of the African countries (the blue bubbles) are at the low end for both income and life expectancy, while the European countries (the orange bubbles) are at the high end.

By comparison, the takeaways from the Best in Show graph are much less global, and much more likely to differ from one observer to the next. You could certainly look along the edges to see which dog breeds were most popular along the top, or which were the best dogs—or at least the best dogs based on the presenter's datadog score metric—down the right side. But how easy or hard would it be to learn from this graph which of the sporting dogs you might want to buy? Or where your own particular favorite dog breed fits in? Did you understand how each dog breed was scored? Did you agree with that approach? For my money, this presentation cries out instead for a table with each breed attribute as a column, so you could easily find or rank the breeds—a spreadsheet with filtering turned on (to use the Excel terminology) would do this nicely.

There's no question that each of these graphs was carefully thought out, with the graphs created by a skilled, imaginative professional. Each took an immense amount of work to produce, I'm sure. Even so, consider each of the design and layout choices—such as color, data point size, supporting elements, type size, etc. How much does each of these choices make it easier to grasp the graph's main points? Or harder? Can presenting a lot of data get in the way of making a point strongly?

This whole conversation illustrates the difference between data and information. Data visualization is an immensely powerful tool, but a few wrong choices by the information presenter can not only cause a graphical presentation to be less effective than a well-designed table, but perhaps even cause the audience to question the presenter's agenda.

Randall Bolten is chief executive officer of Lucidity and author of "Painting with Numbers."



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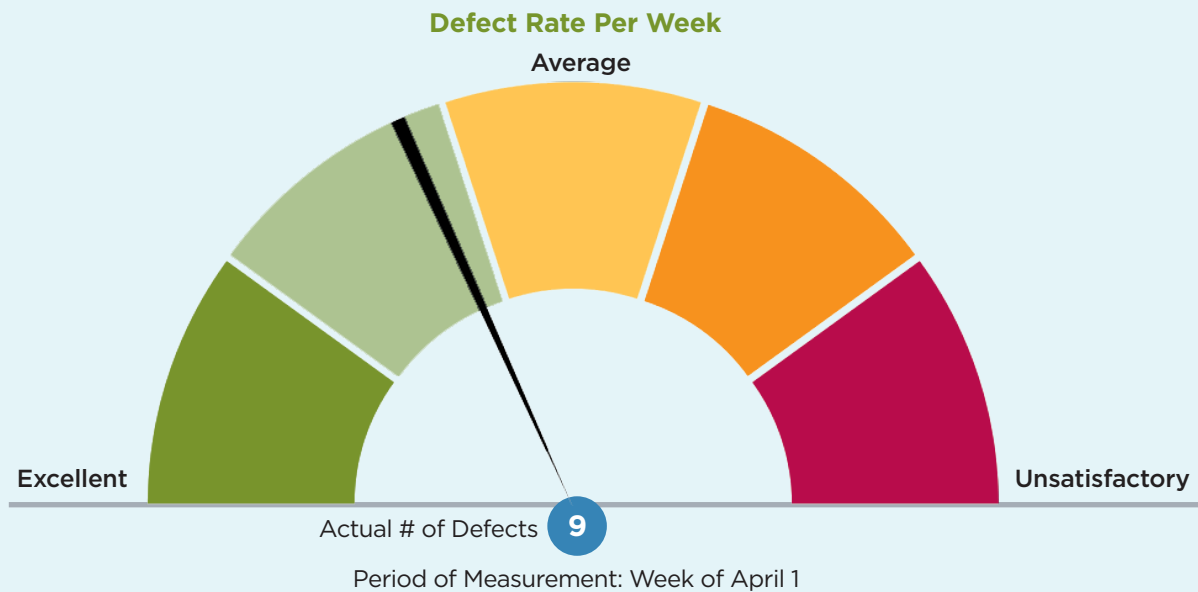
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BRYAN LAPIDUS, FP&A

En-Gauge

Four steps to building a gauge diagram in Excel



Among the different ways to chart and visualize data, gauge indicators are a useful way to show how a single measure compares against a set standard. Excel does not offer a ready-made gauge chart, so here is how you can make one yourself.

The approach we will use is to overlay two graphs on top of each other. Newer versions of Excel make this easy through the Combo Chart feature. Older versions require you to graph both sets of data, then manually change one. Note that the directions below are designed for recent versions of Windows-based Excel. This can be performed in older versions and in an Apple environment by adapting the instructions.

“Excel does not offer a ready-made gauge chart, so here is how you can make one yourself.”

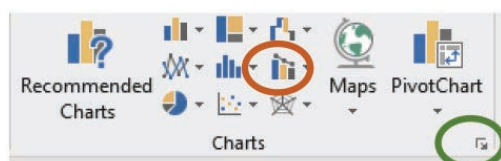
Start by creating the following data table. All numbers are typed except one formula:
D5=200-D4-D3. Highlight the **green** sections:

	A	B	C	D	E	F
1	Slice name	Slice descriptor	Data table		Slice descriptor	Slice name
2			Donut	Needle		
3					Invisible slice; places the needle on a scale from 1-100	
4	"Donut" Point 1	% of visible slice	20	36		"Needle" Point 1
5	"Donut" Point 2	"	20	1	The needle	"Needle" Point 2
6	"Donut" Point 3	"	20	162	Invisible. Remainder of the pie. Formula D5=200-D4-D3	"Needle" Point 3
7	"Donut" Point 4	"	20		leave blank	"Needle" Point 4
8	"Donut" Point 5	"	20		leave blank	"Needle" Point 5
9	"Donut" Point 6	% of invisible slice	100		leave blank	"Needle" Point 6

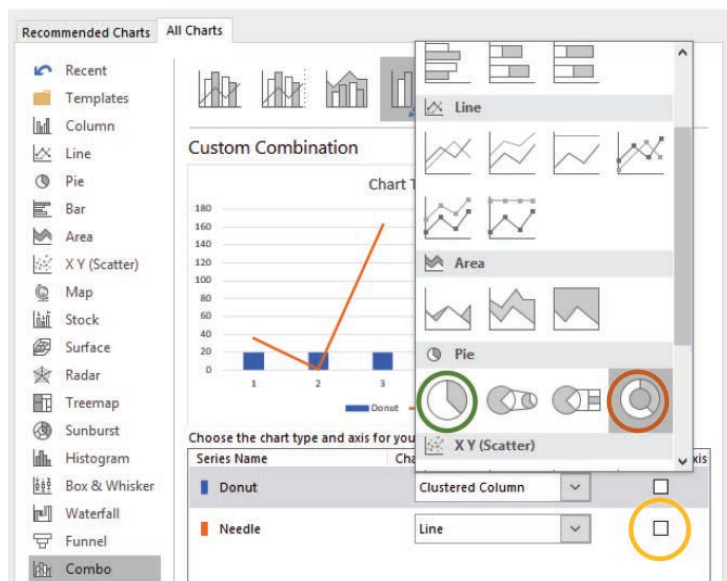
Create the base graph

Create a Combo graph. A combo graph is exactly as named—a combination of two graphs overlapping to present one image.

- With the blue table highlighted, click menu ribbon **Insert** and choose the combo icon from the Charts list [red circle in image below] and **Create Custom Combo**; alternatively, open the entire charts mini tab [green circle below], click the **All Charts** tab, and then select the last choice, **Combo**.



- Select **Series Name** Donut. Select **Chart Type** dropdown and choose the fourth option under Pie, the donut [red circle below].
- Select **Series Name** Needle. Select **Chart Type** dropdown and choose the first option under Pie, the donut [green circle below]. Then put the Needle on the secondary axis by clicking the box under the heading, **Secondary Axis**. [yellow circle below]
- Click OK



If you have an older version of Excel that does not offer the “Combo Graph” option, or simply do not want use the Combo option, you can do this manually.

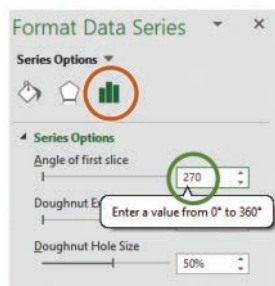
- With the blue table highlighted, click menu ribbon **Insert** and choose the **Donut** option from the **All Charts** list.
- Click on the ribbon menu **Design**, then **Change Chart Type**, and select the first **Pie** option

Create the Needle

The “needle” is the dynamic part of the gauge. From the needle column of the data table, the first number represents the proportional scale of 0-99 where you would like needle to land, and will be colored with No Fill. It is the key variable in this table, and it places the needle itself, which is the second number in the table. The third number represents the remainder of the pie that makes it a full circle, and should also be invisible.

While going through the steps, it is helpful to have open the menu ribbon **Format**, and then monitor the **Current Selection** dropdown on the far-left side because it will identify the Slice Name as identified in the data table. Steps:

- Right Click on the graph and choose **Format Series data** to open the formatting window pane on the right side of your screen (older versions: pop-up window)
- Make the first slice invisible. Change the Series Option to “Needle” either through the **Format Data Series** pane or ribbon bar / Format or the **Current Selection** drop down. Click Ctrl + right arrow to select “Needle” Point 1; change the fill to **No Fill**.
- Color the Needle. Click Ctrl + right arrow to select “Needle” Point 2, change the fill to **Solid Fill** and choose black (or other).
- Color the remainder invisible. Click Ctrl + right arrow to select “Needle” Point 3, change the fill to **No Fill**.
- Rotate pie to put to the starting slice at the right point on the circle. With any part of the Needle selected, in the Format Data Point pane, change the **Angle of first slice** to 270 degrees under the 3 bars icon [red circle image above].



Older versions: right click and in the pop-up window, change the **Plot Series** to **Secondary Axis** and Angle of first slice to 270 here.

Create the background and the gauge

The “donut” is the static, background part of the gauge. The donut chart defaults to a full 360 degree circle; we need to make a few modifications to hide half of it.

Make half of the chart invisible. From the data table, note that the invisible slice is equal to 100, or half of the sum of the visible slice. Excel will assign this to 50 percent of the donut. We need to color that invisible and make it disappear.

- Right Click on the graph and choose **Format Series Data** to open the formatting window
- Change the Series Option to “donut” either through ribbon bar **Format** then **Format Data Series** pane, or the **Current Selection** drop down. Click Ctrl + right arrow to select “donut” Point 1; change the fill to **No Fill**.

Color the slices. With the remaining slices, Ctrl + right arrow to select the next slide, then click **Solid Fill** from the formatting window, and choose the color you want. In the Format / Current Selection drop down, you will see the highlighted “donut” Point 2, Point 3, etc. To go back to a previous slice, click Ctrl + left arrow.

Rotate pie to put to the starting slice at the right point on the circle. With any part of the donut selected, in the Format Data Point pane, change the **Angle of first slice** to 270 degrees under the 3 bars icon.

Using the gauge

This gauge is designed to be used on a 0-99 scale, where zero is on the left and 99 is on the right. For example, assume that your company tracks defects on a process, has 9 in one week, and has established the following scale rating scale:

Excellent	0	5
	6	10
Average	11	15
	16	20
Bad	21	25

To normalize the 9 defects on this chart on a scale, use the total errors divided by range of the scale, or $9/(25-0) = 36$ percent. The gauge is set up with actual numbers, not percentages, so multiply this by 100 to convert to a whole number.

This number should be linked to the data table cell D3!

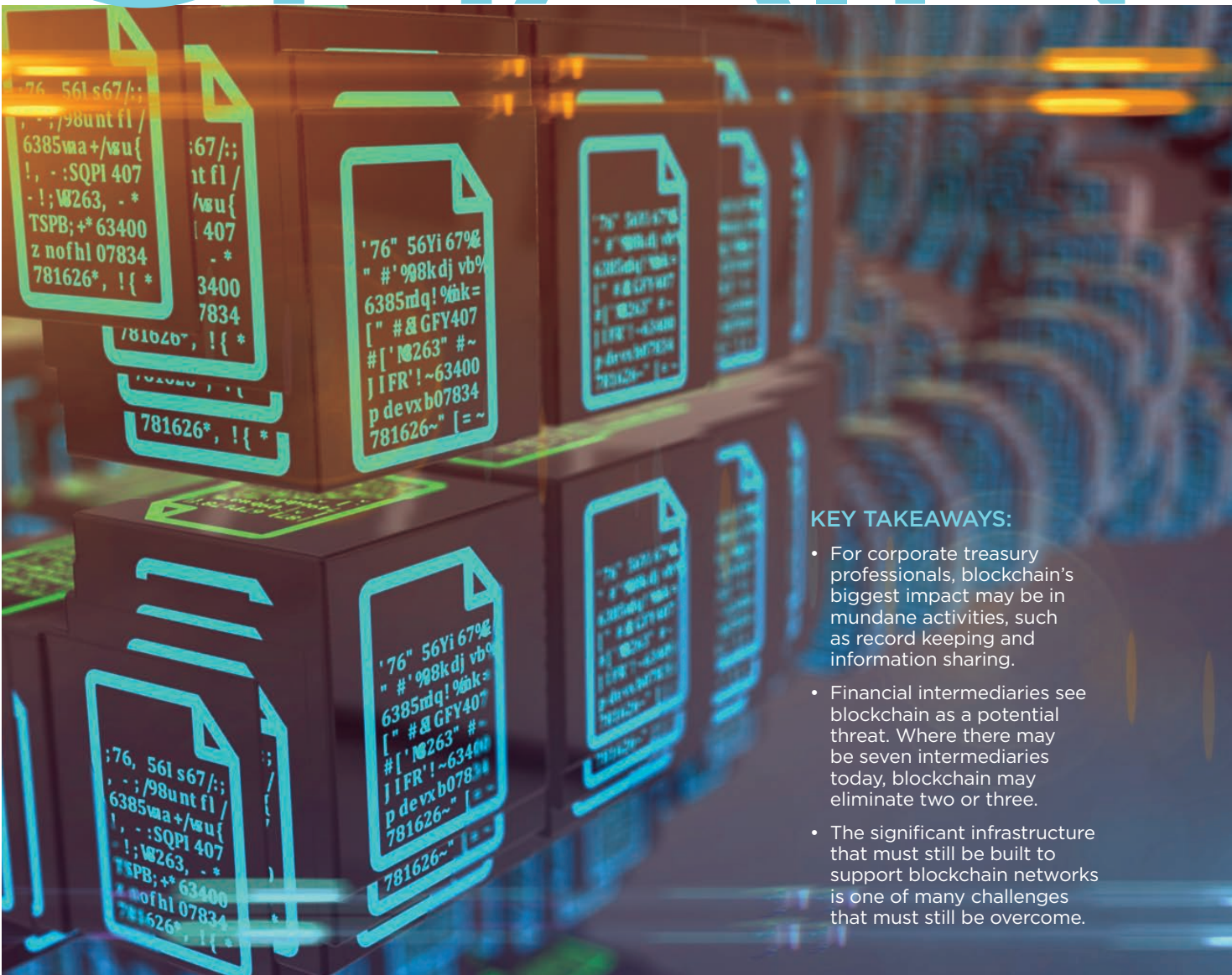
Add embellishments

Add a title: Click on the menu ribbon **Design** and select the first option under **Quick Layout**.

Add specific data elements: Move the chart where you would like it on the worksheet. Right click on a blank part of the chart and select Format Chart Area; choose No Fill to reveal the cells and grid underneath the chart. You can put specific data elements in the cells underneath the table and they will show through. If you do this, I recommend that you also turn off the border (Format, Border, No Fill).

Add titles to the table as you would for any chart, and use **Page Layout, Print Area** to define which segment of the spreadsheet will be printed.

Never Break the CHAIN



KEY TAKEAWAYS:

- For corporate treasury professionals, blockchain's biggest impact may be in mundane activities, such as record keeping and information sharing.
- Financial intermediaries see blockchain as a potential threat. Where there may be seven intermediaries today, blockchain may eliminate two or three.
- The significant infrastructure that must still be built to support blockchain networks is one of many challenges that must still be overcome.

Over the last year, cryptocurrencies have taken a wild ride on the valuation train, while gurus have continued to speculate that the blockchain technology that supports those currencies will revamp payment systems and even the capital markets. But for corporate treasury professionals, the biggest impact may be in more mundane activities, such as record keeping and information sharing.

Bitcoin's price, which was under \$1,000 per coin at the start of 2017, leaped to more than \$17,000 by December, fell under \$7,000 in early April, and by May 7 was nearly \$9,400. But cryptocurrencies are just one use of blockchain technology, which provides participants in a network with access to the same and supposedly immutable version of data via a shared ledger.

Blockchain's impact

Financial institutions have been testing blockchain for a few years in areas including international payments and syndicated loans, and corporates too have been testing the technology. The applications the latter have explored may be less headline-grabbing than those involving the transfer—and possible loss—of money. As companies explore its possibilities, however, the technology may impact them more profoundly, facilitating access to critical information and making the organizations more efficient. The extent of those benefits remains unclear, but according to IT services giant Cognizant Technology Solutions, the technology is poised to have a major impact on many organizations in the long run.



“We ran a survey last year of more than 3,000 participants across a wide variety of industries—more than half were banks—and more than 85 percent agreed their companies would be impacted by blockchain.”

“No one knows who the winners will be in terms of today’s initiatives.”

“We ran a survey last year of more than 3,000 participants across a wide variety of industries—more than half were banks—and more than 85 percent agreed their companies would be impacted by blockchain,” said Lata Varghese, head of blockchain and distributed-ledger-technology (DLT) consulting at Cognizant.

The financial industry has been at the forefront of exploratory efforts through initiatives such as R3, which has sought to apply DLT to complex transactions. In part, that’s been driven by self-preservation. Varghese noted that sending a payment to buy stocks typically passes through seven or more intermediaries, including the broker, and clearing and settlement agents. Using a single distributed ledger to share data is much more efficient than passing it from one organization’s ledger to the next. And it should also be more secure if that data is encrypted, so that a change to one block of data necessitates changing the subsequent ones, and the chain is monitored by members of the blockchain network.

“[Financial] intermediaries are seeing a potential threat, and where there may be seven intermediaries

today, blockchain may eliminate two or three,” Varghese said. “And those that remain will probably use this technology to get more efficient.

Corporates, which use SWIFT indirectly through their banks and in some cases connect to SWIFT directly or through a service bureau, will benefit from more efficient, less costly payments. Meanwhile, Credit Suisse and other banks are exploring the application of blockchain technology to debt issues, and earlier this year, the State of Delaware began analyzing its application to stock ledgers, initiatives that will enable corporates to better communicate with investors.

Putting the technology to work

Perhaps the biggest impact blockchain technology will have on corporates, however, will stem from initiatives they are pursuing. Cognizant notes a wide range of nonfinancial companies exploring ways to put the technology to work. Varghese said their initiatives, as well as those pursued by financial institutions, remain in the pilot stage, and scaling them for wider use will likely remain elusive until various legal and technical issues are resolved.

Nevertheless, according to Cognizant, industry leaders such as Walmart and BHP Billiton, the world’s largest mining company, are starting to use blockchain technology to monitor their supply chains, creating auditable records and proving authenticity. Meanwhile, Cargill announced late last year that its network of farms will use a blockchain-based system to enable consumers to view the histories of the turkeys they buy. Cargill has also joined major cotton producers including Calcot, Parkdale Mills and Olam International, to form a blockchain consortium to create a supply chain and trading ecosystem.

The list of corporates exploring blockchain possibilities is continuing to grow, and Cognizant sees several areas where applying the technology could provide significant benefits, including triple-entry bookkeeping, a managerial accounting platform for subsidiaries, and monitoring the supply chain.

Last fall, Equidato Technologies launched SophiaTX, an open-source platform for developers to apply blockchain technology to core business software, such as enterprise resource planning (ERP) applications and related applications including treasury management systems (TMS). Equidato’s executives declined a recent request to update the platform’s progress.

Destination unknown

It is still too early to know which blockchain initiatives will prevail. The significant infrastructure that must still be built to support blockchain networks is one of many challenges that must still be overcome, Varghese noted. “Today, it’s still difficult to make a business case to invest in the technology, if the benefits won’t arrive for several years,” she said. “No one knows who the winners will be in terms of today’s initiatives.”

Nevertheless, Varghese added, companies are starting to make serious investments in the technology, often for strategic reasons, and they will have a bigger influence on how networks are formed and network rules are written. In Cognizant’s view, she added, the risk of doing nothing in the space is greater than failing on the first attempt, given the extent to which the new technology is likely to change businesses.

“People are actually leaning in and seeking to use the technology for what it is best suited for, and as the technology gets hardened, we will definitely see more adoption of it and possibly some entirely new business models,” she said.

Autonomous Learning

Powering business growth with the alternative AI

CAMERON KOO

KEY TAKEAWAYS:

- Organizations use solutions built on machine learning and deep learning to drive automation, lower costs, increase efficiency and optimize outcomes.
- Autonomous learning automates the process of reading and comprehension of textual data. It enables humans to interact with machines to get the relevant information in a fraction of the time.
- Autonomous learning allows the finance department to complement quantitative forecasting with qualitative analysis and insight into underlying context behind the number.

As FP&A professionals, we are constantly diving into data to develop insights. We need to be aware of current and emerging tools as they get more sophisticated and powerful, so we can become more efficient in our work. Artificial intelligence (AI) is really a set of various tools, and their applicability to a specific task relates to the type of data you want to analyze.

The data world is divided into two camps—structured data, which is stored in structured and ordered databases (think rows and columns), and unstructured data, such as texts, emails, videos and websites. Different data calls for different AI tools. In recent years, machine learning (ML) and deep learning (DL) have gathered significant coverage, especially for finance, because of the applicability to create predictive models based on structured data. ML and DL use statistical science and probability on historical data. They're great for processing structured datasets to find trends and create forecasts.

Autonomous learning complements ML and DL in analyzing dynamic unstructured text. It uses symbolic logic to analyze textual data and discover relevant subjects and relationships based on context. The use cases for finance to consider autonomous learning may not have been fully explored.

ML and DL

Organizations use solutions built on ML and DL to drive automation, lower costs, increase efficiency and optimize outcomes. ML and DL apply statistical science and probability on large datasets to find hidden insights using curve-fitting algorithms, regression and conditional probability. AI solutions built on ML and DL are highly effective with structured datasets (e.g., transactions, traffic patterns, etc.). Some common applications of ML and DL include SPAM email filtering, product recommendation engines, supply chain management and sales forecasting.

ML and DL, however, are not perfect solutions. ML and DL models are costly to build and maintain. They require large amounts of historical data on a narrow problem domain and pre-defined variables. Models are not interchangeable. A model built for one domain cannot be reused for another without retraining. Moreover, ML and DL does not work when presented with new and unknown information. For this reason, ML and DL produce limited results with dynamic unstructured datasets like natural language communications (e.g. email, IM chat logs).

The need for an unstructured data AI

Today, over 80 percent of an organization's data assets consist of unstructured textual data and it is projected to grow exponentially as a result of digital transformation. Text drives nearly every business

function in an organization. It connects business processes, enables team collaboration and exists as documents that articulate opinions, customer feedback, industry news and trends, competitive intelligence, risk, policy, regulation, etc. Organizations need a method to automate reading and comprehension so that business teams can get timely and precise information.

Autonomous learning automates the process of reading and comprehension of textual data. It enables humans to interact with machines to get the relevant information in a fraction of the time. Autonomous learning uses symbolic logic to discover and map subjects, concepts, relationships and context on-the-fly. The acquired knowledge is continuously accumulated into an ever-growing knowledgebase for reference and inference. It is scalable and lightweight and has no dependency on big data or historical data.

By automating reading and comprehension of unstructured text, autonomous learning enables an organization to achieve end-to-end visibility into its operations. It allows the finance department to complement quantitative forecasting with qualitative analysis and insight into underlying context behind the number. Finance can draw upon the collective knowledge embedded in textual data with the same efficacy as quantitative analysis.

Here is a sample list of the type of textual information that autonomous learning can read and analyze:

SEC filings (e.g., 10Ks, 10Qs, 8K, S-1, S-4,)	International, federal, and state laws and regulations (GDPR, tariff bills, SEC regs)
Transcripts of investor calls and stock analyst reports	Legal filings and court rulings
Social media (e.g., Twitter, Instagram, Facebook, comments)	Transcripts of C-Span
University and think-tank research (e.g., medical journals, research papers)	Articles of news sources (e.g., Wall Street Journal, New York Times, industry news)
Press releases	Government and NGO research (e.g., World Bank outlook, Census research)
Business communications (e.g., email, project collaboration notes, chat logs, agreements, work product)	Customer communications e.g. help desk tickets, email, survey responses, call center transcripts)



Below are a few examples of use cases in which the basic research tool can be applied across various uses for different purposes.

Forecasting and variance from forecasts:

Discover and qualify market signals that relate to business drivers

- A consumer goods company wants to know whether the recent “slime” craze among children is before or after its peak in order to determine whether to make more glue (a key ingredient).
- How will recent changes in the tariff outlook impact interest rates, and therefore net interest rates for banks? Scan the proposed NAFTA legislation, trade-deals, and FOMC minutes.
- If Medicare and Social Security run out of funds earlier than anticipated, what is the impact on life expectancy, housing defaults and therefore insurance claims?
- Link internal operations to external events to help explain variance.

Risk and opportunity analysis:

Qualify signals and measure their progression over time across different information mediums

- News reports of a geopolitical event where your company is considering a planned expansion.
- A new regulator is being considered for a key government post that oversees your industry; what is her track record on matters related to your company? Scan government and committee records.
- Small startups are entering your market space.
- Develop scenarios to stress test your business.

Peer monitoring:

Analyze information streams of competing firms for insights into activity and changes to strategy

- Major competitors are getting a lift from a new area of growth or increasing/decreasing investments in geographies. Scan 10Ks, press releases, analyst reports.
- Peers are expecting to be impacted by market forces and lowering income forecast.

Investment analysis:

Identify and qualify externalities and reconcile variance in expectations

- Test validity of investment thesis and assumptions before launching services in a new market.
- Research suppliers and partners for potential financial, legal or market issues that would impair their ability to fulfill their commitments or maintain services (overlaps with risk management).
- In investor relations, fully understand the impact of your company in the marketplace.

Organizations have invested a significant amount of resources in business transformation and digital transformation, but if they only focus on structured data and related tools, they will be missing critical elements. Natural language tools are advancing rapidly and finding utility inside finance to develop a fuller picture of the company’s relationship to the marketplace.

Cameron Koo is Head of Growth, Business Development & Partnership for SiteFocus.

KEY TAKEAWAYS:

- Lack of standardization is why cash application is a purely transaction-based process.
- Accounts receivable can leverage process automation and artificial intelligence to improve straight-through processing.
- Integrated Receivables allows different A/R processes like credit, collections, deductions, cash application, billing, and invoicing to collaborate.

3 Strikes, You're AUTOMATED

Rescuing lockbox processing
and credit-to-cash with RPA,
AI and Integrated Receivables

RIDDHIMA BATTÀ

As businesses experience high growth, it's important to ask whether their current A/R processes are scalable. Cash application does not add any value to the bottom line, but continues to drain resources with growing business size.

Cash application

The fundamental goal of cash application in accounts receivable (A/R) is to efficiently process the incoming payments and post cash. Companies struggle with applying payments due to inconsistent channels, formats and data with payments and remittances.

Lack of standardization is why cash application is a purely transaction-based process involving:

- Remittance aggregation from sources such as checks, email, web portals, EDI
- Payment remittance linking
- Invoice payment matching
- Deduction coding for short payments

Despite high manual effort and low strategic importance of cash application, most decision-makers across companies prefer automating higher-order functions such as credit and collection.

A survey by NACHA and CRF revealed the payments mix for B2B companies has undergone a drastic shift, in which e-payments are on the rise. However, cash application teams have yet to ride this wave of changing trends as most companies are stuck with traditional lockbox solutions.

Figure 1
Strategic Importance of Credit-to-Cash Processes



Manual Effort Invested in Credit-to-Cash Processes



Figure 2: Payment Mix Check, ACH credit, ACH debit, Credit card, Debit card, Wire, Cash

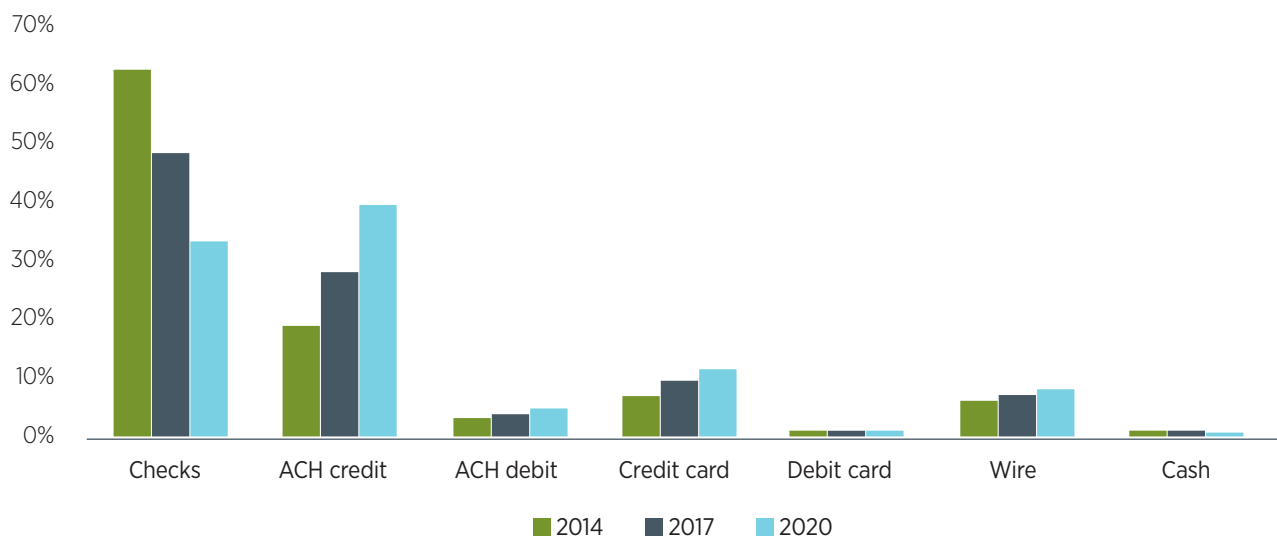
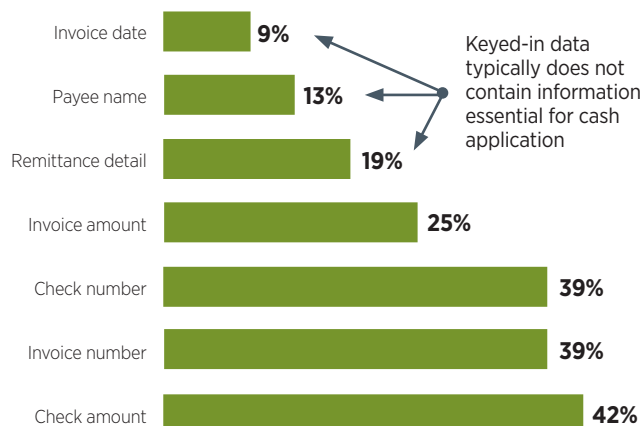


Figure 2: Source: Payment Trends, Preferences & What Works for Credit-Receivables Professionals, NACHA-CRF Survey

Figure 3


Source: Q3, 4, 5, *Current Trends in the Practice of Lockbox Usage*, Credit Research Foundation

Pain points of traditional lockbox solutions

Incomplete support for processing checks and high lockbox fees:

High volume of checks necessitates costly lockbox services. Banks charge capture, keystroke and transmission costs. Consequently, companies could end up paying \$1 to \$3 per check. This directly impacts bottom line.

Despite spending fortunes, companies are far from achieving end-to-end automation due to following inefficiencies:

- **Incomplete remittance information:** Suppliers availing lockbox services have their banks consolidate checks into lockbox files. However, in most cases, the header information available in the payment file is not sufficient for posting cash. The lockbox data does not consist of all the necessary payment details and analysts end up filling-in the missing data by manually re-working check images.
- **No deduction coding:** Lockbox files do not consist of deduction information such as discounts. Analysts have to identify and map the invoices with corresponding reason codes.
- **No direct posting into the ERP:** Analysts need to reconfigure the incompatible lockbox file formats and handle exceptions before posting to ERP.

No support for e-payments: Bank lockboxes do not support remittance reconciliation for e-payments. Given the rise of e-payments, manual processing is a costly and inefficient affair, with ripple effects visible across credit-to-cash cycle.

Processing e-payments is complicated due to:

- Decoupled payment and remittance
- Multiple remittance sources (email, web-portals, fax) and formats (.txt, .csv, BAI2, .pdf)

A/R teams reduced into transaction management: Low-value, manual tasks involved in cash application reduce A/R

teams to doing back office, clerical work instead of focusing on customer engagement to improve repeat business and unlock latent business opportunities.

It is beyond the point where companies are able to debate whether or not to automate cash application. It is a low-hanging fruit that warrants automation to stay up-to-date with the dynamic payments landscape.

Process automation and AI for cash application

Process automation is the use of robots mimicking human actions to perform well-defined functions. It is best-suited for performing repetitive tasks by following a fixed set of rules. However, it is based on strict compliance of orders and highly structured input, eliminating scope of learning.

Artificial intelligence (AI) is the ability of computers to learn, reason, think and perform tasks requiring complex decision-making. AI can perform tasks by analyzing humans, evolve with experience and looking for better ways to execute and handle newer inputs based on experience.

A/R can leverage process automation to improve straight-through processing by:

Invoice matching using non-standardized data: AI could match payment and remittances with open invoices using non-standardized data like:

- Invoice number/account invoice references
- Truncated invoice numbers
- Alternate references like purchase order numbers, BOL numbers
- Alternate payers in case of a complex parent-child structure.

AI-enabled OCR capture: AI-enabled OCR captures remittance information from check stubs using template-free technology. AI not only reads data but understands it as an analyst would, distinguishing different fields such as the invoice number, due date and purchase order number. Eventually, the accuracy increases with self-learning.

Eliminating repetitive exceptions in cash posting:

Approximately 80 percent of cash posting exceptions are repetitive in nature because customers repeatedly send remittances with the same inconsistencies. AI-based solutions learn the pattern in which analysts handle exceptions, and auto-resolve them without any analyst input for similar exceptions.

Integrated receivables

Integrated Receivables is a platform that allows different A/R processes like credit, collections, deductions, cash application, billing, and invoicing to collaborate. To leverage the most from a unified A/R process, the following needs to be optimized.

A Shared Service Experts' Vision with Integrated Receivables

*Ellen Farish,
Senior Operations
Manager, Shared
Financial Services,
Southwire*

Two ways of realizing the Integrated Receivables vision are:

Improved, seamless cross-department collaboration is achieved by:

- Transparency—effective and timely sharing of information across departments
- Visibility of accounts across geographies and departments
- End-to-end transaction tracking
- Better collaboration across A/R teams and more informed discussions with customers.

The path to better cash management is:

- Bridge the gap between suppliers' understanding of their customers and the reality
- Improved company image with intelligent customer interactions and well-informed decision-making
- Enhanced customer experience with fewer touchpoints with customers.

Integrated Receivables allows businesses to achieve a bird's eye view of customers, optimize A/R operations at a transaction level, and better profile customers to unlock business opportunities with stronger customer relationships.

Core transaction management: In the current scheme of things, analysts spend the majority of their time in low-value work. These low-value activities need to be automated, enabling analysts to focus on strategic tasks, such as researching invalid deductions, controlling credit risk and reducing critically delinquent accounts, rather than just chasing payments long after the transaction happened.

Human decision-making: AI processes large data sets and provides analysts with simplified metrics for better decision-making. Examples of AI facilitating human decision-making are:

- **Blocked order prediction:** AI predicts the likelihood of orders getting blocked by monitoring the credit limit and past purchase patterns of customers. Based on this, analysts take proactive action to update credit limits or communicate with customers preemptively.
- **Payment date prediction:** Traditional collections management relies on skill and speed of individual collectors and kicks into action after a customer has gone past-due. AI helps collections become proactive by predicting payment dates of an invoice.
- **Dispute validity prediction:** A/R teams often struggle with deductions paradox where they are not able to prioritize their efforts without knowing the validity of each deduction—which remains unknown until research is complete. By studying past resolution patterns, current deduction characteristics and applying machine-learning algorithms, AI is able to predict which deductions are invalid, saving time and productivity lost in researching valid deductions, reducing instances of false-positives and saving dollars written off for invalid deductions.

Structured internal collaboration

- **Centralized repository:** A centralized repository for documentations across processes such as claims, BOL, POD, remittances, credit applications and deal sheets gives stakeholders like collectors, brokers and deductions analysts quick and easy access.
- **Standardized workflow:** Workflows for cross-department collaboration are predefined for use cases such as blocked order resolution, identifying disputes and dunning customers.
- **Manager approval escalation:** For high-priority tasks, such as approving the credit limit for critical accounts, it is escalated to the manager/director from analysts, within the system.

Simpler external collaboration

- **Automated mass correspondence:** Emails are sent to customers en masse instead of manually being sent.
- **Predefined templates:** Denial packages and dunning templates are built-in with necessary backup documentation, ready to be sent to customers/vendors.

AI provides finance executives with comprehensive process visibility, driven by real-time integrated data. Advanced reporting enables a consolidated overview of statistics and simplifies decision-making. AI positions management officials to drive next-level process transformation versus policing metrics and process owners.

Riddhima Batta is product marketing manager for HighRadius Corporation.



Reporting for Duty

IRA APFEL

In a presidency filled with ideas that are, shall we say, interesting, President Donald Trump recently made one of his most intriguing suggestions yet.

President Trump wrote in a Tweet—where else?—that the Securities and Exchange Commission should consider reducing reporting requirements for public companies from quarterly to a semi-annual basis.

That deafening noise you heard was the sound of finance employees across America cheering the prospect of filling out less regulatory paperwork, writing fewer MD&A's, and preparing for fewer earnings calls with investors.

The suggestion does seem to have merit. Finance staff at publicly traded companies really do get caught up writing mandated reports every three months;

reducing this requirement by half could liberate them to spend more time providing forward-looking guidance. This would also benefit shareholders, in theory, since more strategic guidance could improve company performance.

Reducing the burden of regulatory reporting for publicly traded companies also could make stock prices less beholden to market whims and impulsive buying and selling, since investors would have fewer opportunities to make gut-reactions to reports.

In fact, no less an expert than Warren Buffett called for the elimination of quarterly report.

But critics say, "Not so fast." Actually, they want it not so slow.

Business columnist Barry Ritholtz put it best in a recent column for Bloomberg: "Want to end corporate short-termism and all the heavy

breathing that comes with quarterly earnings reporting? Then report results daily."

Daily? Yup. That gulping noise you heard was the sound of finance employees across America swallowing hard at the prospect of publicly reporting financial information every day.

Will the SEC acquiesce to President Trump? Who knows?

But that doesn't mean finance teams should ignore his suggestion. Rather, you and your colleagues should treat the President's Tweet as a starting point for a philosophical discussion. Whether or not your company is public, how often should you report earnings and revenue? Why? And, to whom? Does it even matter?

The Tweet may not become reality, but thoughtful debate over reporting definitely should be.

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