

Fall 2019 Contact Association for Financial Professionals' Quarterly Magazine Fall 2019 Association for Financial Professionals' Quarterly Magazine

Learning for LIFE

Treasury and finance professionals gather in Boston to renew their commitment to face the future

Fareed Zakaria on the changing global landscape

AFP Research: Liquidity and Electronic Payments

Federal Reserve, SEC urge corporates to prepare for Libor's end

The California Consumer Privacy Act deadline approaches



We'll focus on the day-to-day so you can focus on the days to come

Prioritizing your organization's key strategic objectives can be challenging while managing its daily banking activities. That's why trusted partners are critical. Rely on MUFG, one of the largest global financial groups, to support your organization's treasury, trust, and trade finance needs. Backed by a 360-year history and a commitment to innovation and long-term client relationships, we can help optimize your working capital and provide best-in-class asset servicing solutions. Let us focus on the details so you can focus on the vision.

Your trust, your future, our commitment

Learn more at mufgamericas.com/AFP



MUFG Union Bank, N.A.A member of MUFG, a global financial group















Superforecasting

When does a forecaster become a superforecaster? Bryan Lapidus

34 2019 AFP Liquidity Survey

Bank relationships are core to businesses' operating cash investment mix AFP Research

38 AFP 2019 Schedule at a Glance

42 **AFP** Aware

AFP Aware attendees can give back to the city of Boston through two community service projects Staff Writers

44

AFP 2019 Pinnacle Award

Baird, Expedia Group and Hyundai Capital America are finalists for the AFP 2019 Pinnacle Award Staff Writers

46

Navigating the Forces of Global Disruption

Fareed Zakaria of CNN discusses the geopolitical risks of today Andrew Deichler

49

Adapt and Thrive

Dismantle corporate silos through embedded process controls Royston Da Costa

52 Swipe Up

It is imperative for treasury leaders to reign in out-of-control card processing costs Anand Goel

56

Back in Style

Older FP&A topics are becoming interesting and exciting again Kirby Lunaer

Fulfill Your Potential

Three actionable steps for career success and personal growth John Engeman

63

Remember Your **Fundamentals**

FP&A professionals, don't forget your journal entries Karl Kern

66

Flipping the Swtich

Want to move from accounting to FP&A? Read this.

Nilly Essaides

70

2019 AFP Electronic Payments Survey

Check usage drops to a new low of 42 percent for B2B transactions AFP Research

74

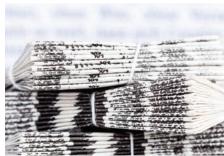
Introducing the Newest CTPs

Staff Writers

COLUMNS









4 From the President & CEO Jim Kaitz

8 Current Events The Fed and the SEC urge corporates to begin their post-Libor plans Andrew Deichler

12 Current Events

The CCPA effective date is approaching, and it probably affects your organization *John Hintze*

18 FP&A Foresights

FP&A has obligations to multiple parties, and it can't always say yes Anders Liu-Lindberg & Bryan Lapidus, FP&A

22 Payments Essentials

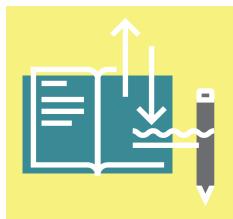
Many corporate treasury departments are seeing the appeal of real-time payments *John Hintze*

26 Risk Column

Intermediaries have several options when it comes to mitigating price risk *Ira Kawaller*

80 The Book End

What's Next Andrew Deichler



Take the AFP CE Recertification Quizzes

After you've finished reading this issue, head over to the CE quiz page and take the latest Exchange quiz. CE credit quizzes allow CTP, CCM, and FP&A holders to test their knowledge on timely industry topics. They are accepted as credits for recertification. An online format allows for automatic pass/fail notification.

Quizzes are valid for two years from the date the source material was originally published. You will have 90 days from the date of purchase to complete a quiz, although you should complete the quiz before the end of your reporting cycle.

Purchase a quiz at www.AFPonline.org/CEquiz



MoneyPort®: Powerful liquidity management for your enterprise

When your daily liquidity requirements are dynamic, you need a management tool just as dynamic. With MoneyPort, part of our full suite of liquidity custody products and services, you can easily monitor your short-term cash reserves, and control account activity and holdings online, 24/7.

Supporting a variety of global currencies, you'll have the analytics, research, trading, and alert tools you need all within your reach through MoneyPort. For more information, call us at 800-490-8262.

Learn more at mufgamericas.com/moneyport

MUFG Union Bank, N.A.A member of MUFG, a global financial group





JIM KAITZ, PRESIDENT & CEO

TO BE CONTINUED

Dear AFP Members.

ontinuous learning is a mindset that you hone over a lifetime. Everyone learns a bit differently, and it's only after you have that "aha moment" that you can truly embark on your lifelong journey of learning.

Having a continuous learning mindset is the key to doing our best work. According to author Josh Bersin, our job titles aren't as important as they once were. What matters more is what we know how to do, and how easily we can take on new roles and responsibilities.

People often confuse learning with education. Education is externally focused; it comes from someone "teaching" you. Learning, in contrast, is what you do for yourself. To truly be effective, financial professionals need to continuously grow their fluid intelligence—their ability to adapt and solve new problems.

Treasury and finance professionals are accustomed to adapting; they're frequently taking on new roles and responsibilities, often with less resources. As practitioners gradually embrace the digital revolution, and technologies such as artificial intelligence and machine learning, their path to career success will only grow.

At AFP, we also are continuing to grow, and that's why we recently opened our Singapore office. We recognized that the APAC region has an appetite for continuous learning, and we knew it was somewhere we needed to be.

I encourage you to never be satisfied when it comes to a continuous learning mindset. In this everchanging world, financial professionals are constantly being asked to adapt on what feels like a daily basis; however, if you commit to a growth mindset and continuous learning, then you are making an investment in yourself that is sure to pay dividends over the course of your career.

Sincerely,

Jim Kaitz

President and CEO

Raising deposits?

Let us connect you to motivated investors.

When you choose Fidelity Capital Markets as one of your certificate of deposit (CD) underwriters, we'll help you connect with an extensive retail investor platform, which allows customers to easily access and purchase your CDs directly on Fidelity.com's award-winning platform.*



Call 800.343.2670 or visit capitalmarkets.fidelity.com/CDUnderwriting



*Investor's Business Daily® Best Online Broker 2016, 2017, and 2018. Barron's Best Online Broker 2016, 2017. StockBrokers.com Best Online Broker 2018.

Kiplinger's Best Online Broker 2016, 2017.

The Fidelity Investments and pyramid design logo is a registered service mark of FMR LLC. Fidelity Capital Markets is a division of National Financial Services LLC, Member NYSE and SIPC. © 2019 FMR LLC. All rights reserved. 555140.27.0

AFP OFFICERS, COMMITTEES AND TASK FORCES



CHAIRMAN OF THE BOARD

Robert Whitaker CTP DHI

VICE CHAIRMAN OF THE BOARD

Terry Crawford, CTP AMC Entertainment Inc.

VICE CHAIRMAN OF THE BOARD

Jordan Krugman, CTP Invesco I td.

PAST CHAIRMAN OF THE BOARD

Jeff Johnson, CTP, CPA

PRESIDENT AND CHIEF EXECUTIVE OFFICER

James A. Kaitz

BOARD OF DIRECTORS

Irena Barisic, FP&A Brookings

Christopher Fulton, CTP Selendy & Gay, PLLC

Jonathan Hall, CTP YMCA, San Diego County

Michael High, FP&A, CMA Royal Dutch Shell

Ferdinand Jahnel, CTP Marsh & McLennan Companies, Inc.

Joan Piscitello, CTP Iowa State University

Fred Schacknies, CTP Hilton Worldwide, Inc.

Tamara Saront-Eisner, CTP Air Liquide

Matthew Skurbe, CTP The Blackstone Group L.P.

Gaileon Thompson, CTP, FP&A

Meredith Vance, CTP NTT DATA Services

AFP EXCHANGE EDITORIAL **ADVISORY BOARD**

CHAIRMAN

Suzanne S. Allen, CTP CompuDyne Corp.

MEMBERS

Nancy C. Griffin SunTrust Bank

Kari Kingori Laney College

Florie Petti PWC

Michele L. Scott, CTP International Paper Co.

Joseph Tinucci, AAP University of Colorado

Karen O. Trickle Journal Communications, Inc.

Fileen Zicchino Bank of American Merrill Lynch

COMMITTEES, PROJECTS, TASK FORCES

AUDIT COMMITTEE

Matthew Skurbe CTP The Blackstone Group L.P.

CERTIFICATION COMMITTEE

Terri K. Mimms, CTP, FP&A Purdue University

CTP BODY OF KNOWLEDGE COMMITTEE

Jim Gilligan, CTP, FP&A Great Plains Energy, Inc.

FP&A ADVISORY GROUP

Geetanjali Tandon Bayer

TREASURY ADVISORY GROUP

Sarah Schaus Allianz Life Insurance Company, N. A.

POLITICAL ACTION COMMITTEE

Jim Gilligan, CTP, FP&A Kansas City Power & Light Co.

Exchange

PRESIDENT AND CHIEF EXECUTIVE OFFICER James A. Kaitz

EDITORIAL MANAGER

Andrew Deichler

SENIOR PRODUCTION DESIGNER Amy B. Cooley

CONTRIBUTING AFP WRITERS

Bryan Lapidus, FP&A

ADVERTISING

Kevin Boyle Sales Executive

CUSTOMER SERVICE

customerservice@AFPonline.org

AFP EXCHANGE

4520 East-West Highway, Suite 800 Bethesda, MD 20814 T: 301.907.2862 F: 301.907.2864 www.AFPonline.org

Exchange@AFPonline.org

ABOUT AFP®

Headquartered outside of Washington, D.C. and located regionally in Singapore, the Association for Financial Professionals (AFP) is the professional society committed to advancing the success of treasury and finance members and their organizations. AFP established and administers the Certified Treasury Professional and Certified Corporate FP&A Professional credentials, which set standards of excellence in treasury and finance. Each year, AFP hosts the largest networking conference worldwide for more than 7,000 corporate financial professionals.

AFP EXCHANGE, Fall 2019 (ISSN 1528-4077), is published quarterly at \$90 per year for nonmembers by the Association for Financial Professionals, 4520 East-West Highway, Suite 800, Bethesda, MD 20814. Periodicals postage at Bethesda, MD, and additional mailing offices.
POSTMASTER: Send address changes to AFP Exchange 4520 East-West Highway, Suite 800, Bethesda, MD 20814.

FOLLOW US ON













Use ICS® as a Cash Management Tool

With the Insured Cash Sweep® service, you don't have to sacrifice safety for yield. You can earn a return, preserve daily liquidity, and enjoy access to multi-million-dollar FDIC insurance coverage for large cash balances.

Visit InsuredCashSweep.com/AFP to learn more.

Placement of funds through the ICS service is subject to the terms, conditions, and disclosures in the service agreements, including the Deposit Placement Agreement ("DPA"). Limits and customer eligibility criteria apply. In the ICS savings option, program withdrawals are limited to six per month. Although funds are placed at destination banks in amounts that do not exceed the FDIC standard maximum deposit insurance amount ("SMDIA"), a depositor's balances at the relationship institution that places the funds may exceed the SMDIA (e.g., before ICS settlement for a deposit or after ICS settlement for a withdrawal) or be ineligible for FDIC insurance (if the relationship institution is not a bank). As stated in the DPA, the depositor is responsible for making any necessary arrangements to protect such balances consistent with applicable law. If the depositor is subject to restrictions on placement of its funds, the depositor is responsible for determining whether its use of ICS satisfies those restrictions. ICS and Insured Cash Sweep are registered service marks of Promontory Interfinancial Network, LLC.

CURRENT EVENTS



"Because these contracts didn't take into account an end for Libor, if the rate went away, it could be devastating to the financial system."

orporate treasury departments still have time to prepare for the transition away from the London Interbank Offered Rate (Libor), but time is running out. That was the view from both a June meeting at the U.S. Chamber of Commerce and a July warning issued by the U.S. Securities and Exchange Commission (SEC).

David Bowman, special adviser of the Board of Governors of the Federal Reserve, stressed to attendees of the Chamber event that corporates need to begin working on their transition plan now. The crux of the problem, he explained, is that many of the existing contracts out there were poorly structured because people didn't think Libor could ever stop. "Because these contracts didn't take into account an end for Libor, if the rate went away, it could be devastating to the financial system," he said.

The Alternative Reference Rates Committee (ARRC), which has been working diligently to help prepare businesses for this massive change, is nearly at the point where it is ready to work on the implementation of a new rate, said Tom Wipf, Vice Chairman, Institutional

Securities, Morgan Stanley and Chair of the ARRC. With the prep work finished, he also urged companies to begin to consider moving on from Libor, describing the time period between the meeting and the end of 2021 as "the blink of an eve."

SOFR

Participants in several different panels throughout the Chamber event agreed that the Secured Overnight Financing Rate (SOFR) is the only viable alternative to Libor. "The \$200 trillion-plus on Libor will move somewhere," Wipf said. "So we have to think about where the safest place it is for it to land. [The ARRC thinks] the safest is overnight SOFR."

Unfortunately, the market as a whole is still apprehensive about SOFR. Ann Battle, assistant general counsel for the International Swaps and Derivatives Association (ISDA), who also participated on the AFP 2018 panel with Bowman, called on market participants to educate themselves on the rate, as there's really only so much trade associations and regulators can do. "We've given the market the tools they need, now the market needs to learn how to use SOFR," she said.

The goal of SOFR is to be a durable, IOSCO compliant rate, Wipf said. The ARRC sees SOFR is the key pillar that could support the vast majority of current market activity. "We don't want to do this again," he said. "We want to do it once and do it right."

However, the ARRC isn't going to be the one to move U.S. companies onto the new rate. Bowman, who participated in a Libor panel discussion at AFP 2018, stressed that the transition from Libor to SOFR needs to be decided by businesses. "Ultimately, we can't dictate what prices you pay for your contracts or what rates you use in your contracts," he said. "So this transition ultimately has to be up to the private sector. So we're giving you one path that you can choose to go down if you're going to transition."

CURRENT EVENTS continued

An attendee asked Bowman and Wipf about how corporate treasurers are going to handle the spread between Libor and SOFR. He specifically wanted to know whether the Fed would be offering some sort of independent benchmark that would help to mediate this spread. "If we're all going to the banks individually, it is going to be a tough challenge," he said. "It would help a lot if there was an independent benchmark that we could look to and tell our boards, 'We were at Libor plus 125 and now we're at SOFR plus 140; here's the independent view that the spread is reasonable.""

Bowman responded that it wouldn't really be the Fed's place to establish a benchmark. "I don't think the ARRC or the Fed can say, 'This is a fair price.' That needs to be settled in the market," he said. "But I agree that it's an issue for corporate treasurers who might say, 'I'm used to Libor and I think I know what a fair spread is, but don't know what a fair spread is now with SOFR. I don't want to have to go to my board after the fact and say that it should have been 30 and I got 25 or 40.""

Tess Virmani, associate general counsel and senior vice president of public policy for the Loan Syndications and Trading Association (LSTA), noted that what many stakeholders desire is a forward-looking term rate. However, that may not actually be attainable without first moving to a rate like SOFR. "It's starting to dawn on people that if everyone in the cash markets waits on a forward-looking term rate, we have a problem there," she said. "If we wait, we may not get that rate."

Battle agreed. "The reality is, you don't get a forward-looking rate based on SOFR until you have a robust market based on SOFR," she said. "The derivatives market has to be based on SOFR for there to be a forward-looking term rate."

Making the transition

Jennifer Earyes, CTP, director of corporate development for Navient, and a member of AFP's Treasury Advisory Group who will also discuss Libor at AFP 2019, provided some insights on how legacy loan contracts will transfer from Libor to SOFR. Navient provides student loans, and consumers likely aren't following the Libor transition the way corporates are. Thus, consumers need to be educated by anyone who lends to them.

However, the uncertain future of benchmark rates creates new problems. Contract fallback language may state that if Libor becomes unavailable, then the lender will be able to select a comparable rate. "Off the bat, that sounds great, until you realize that we don't know

when this is going to happen," Earyes said. "And so we need to coordinate and we need more folks at the table who are nonbank lenders who are participating in that kind of market to bring voices and perspectives that are not present right now."

Earyes advises companies who provide loans to educate their frontline employees on this transition. "Are your call centers prepared to explain this quickly and simply to a borrower in a way that they realize that they are not being harmed?" she asked. "Are they understanding that authorities are compelling us to consider a world where Libor does not exist?"



SEC warning

In a joint statement, the staffs of the Division of Corporation Finance, the Division of Investment Management, the Division of Trading and Markets, and the Office of the Chief Accountant of the SEC warned of the potential impacts if Libor either stops publication in 2022 or is degraded to the point where it is no longer seen as a benchmark rate. As a result, the SEC urges regulators and market participants to implement alternative reference rates ahead of deadline to stave off any market disruptions.

The SEC added that the risks posed to public companies will be exacerbated if the necessary prep work for an orderly transition isn't completed in a timely fashion. As such, the Commission said it is "actively monitoring" how market participants address these risks.

Existing contracts

Market participants need to identify existing contracts that extend past 2021 to determine their exposure to Libor. Many contracts have interest rate provisions referencing the rate that didn't take into account its potential discontinuation when they were drafted. As a result, there may be discrepancies over how contracts should be interpreted. Conversely, even if contractual interpretation is clear, the adjustment still may not be consistent with expectations of affected parties.

Since these types of issues can be difficult to fix. the SEC recommends market participants get to work now. For example, corporates should do their best to determine what effect a Libor discontinuation would have on the operation of existing contracts, what alternative rate might replace Libor in such contracts, and whether said alternative rate might introduce new risks altogether.

Lawton B. Way, partner with Hunton Andrews Kurth LLP, noted that many businesses are not addressing these contracts now because they feel they still have plenty of time. He encourages them to do so, because 2022 is coming fast. "I don't think many companies are actually doing this," he said. "The window has been out there for a while, but I don't think companies are acting very quickly to take these projects on."

New contracts

For new contracts, the SEC recommends participants reference an alternative reference rate to Libor, such as SOFR. If they still opt to use Libor, then it would be wise to include effective fallback language in the event that Libor does go away. Fortunately, this does seem to be happening overall. "New contracts are generally picking up the language of what to do if Libor goes away," Way said. "But contracts that are older than a couple years likely don't have that in."

Other business risks

The SEC noted that an impact assessment of Libor's end extends beyond mitigation efforts related to contracts; there may be other consequences on corporates' strategy, products, processes, and information systems. For example, treasury teams should ensure that their systems are set up to incorporate new instruments and rates with features that differ from Libor. Depending on the corporate's market exposure to Libor, it may be necessary to establish a task force to assess the potential impact.

Division-Specific Guidance

The SEC also offered specific guidance on how the Libor transition could impact groups regulated by the four divisions.

- Division of Corporation Finance: Investors need to be kept in the loop about the discontinuation of Libor, and that includes disclosing risk factors, management's discussion and analysis, board risk oversight, and financial statements.
- Office of the Chief Accountant: Moving to a new benchmark rate can severely impact financial reporting and accounting for debt instruments, hedging activities, inputs used in valuation models, and potential income tax consequences. Constituents are urged to participate in the standard-setting process with the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB).
- Division of Investment Management: If Libor is discontinued, it could affect floating rate debt, bank loans, Libor-linked derivatives, and certain assetbacked securities.
- Division of Trading and Markets: The end of Libor may also impact broker-dealers, central counterparties and exchanges. These entities should assess and respond accordingly.

Next Steps

The SEC welcomes comments from market participants on Libor discontinuation. Corporates may find it beneficial to share the issues and challenges they are facing with the agency.

Way noted that many corporates may be waiting to act because they want to see if the market comes to a consensus on what to do about Libor. "That's slowly emerging but I don't think it's emerged yet," he said. "There's been a lot of talk [from regulators] that 'the end is near,' but we're not seeing a lot of action yet. But we're encouraging people to start taking inventory of their contracts, to identify which ones you're going to need to amend or renegotiate."



AFP 2019 has multiple sessions on **Libor** in the **Treasury Management** track.



headquartered in the Golden State—have a lot of work ahead of them if they want to avoid potentially major disruptions to their businesses.

Looming deadline

First, a couple key factors that treasury and finance professionals need to understand about the CCPA. For one, U.S. companies with employees or sales in Europe that have already complied with the European Union's General Data Protection Regulation (GDPR)—effective since May 25, 2018—may believe its more expansive framework means that they are in compliance with CCPA. To a large degree it does, but companies must nevertheless understand and accommodate the differences.

continued on page 14



IS YOUR COMPANY'S PENSION PLAN ON THE RIGHT PATH? We can provide a road map to help your company reach its pension destination.

Pacific Life is organized under a mutual holding company structure and operates for the benefit of its policyholders and contract owners. Pacific Life counts more than half of the 100 largest U.S. companies as its clients.

Our consultative approach combined with our suite of Pension Risk-Transfer solutions can help you map the journey.

Let's talk. Contact our Pension Risk-Transfer team for a one-on-one consultation. (877) 536-4382, Option 1

www.PacificLifePRT.com

Pacific Life is a product provider. It is not a fiduciary and therefore does not give advice or make recommendations regarding insurance or investment products. Pacific Life, its affiliates, its distributors, and respective representatives do not provide any employer-sponsored qualified plan administrative services or impartial advice about investments and do not act in a fiduciary capacity for any plan.

Pacific Life refers to Pacific Life Insurance Company (Newport Beach, CA). Insurance products are issued by Pacific Life in all states except in New York. Guarantees are backed by the financial strength and claims-paying ability of the issuing insurance company.



CURRENT EVENTS continued



"The most important driver for most companies is that partners won't do business with them if they can't document their compliance."

And two, U.S. companies outside the state, even many smaller ones, must comply with the California law if they collect data on customers who live in the country's most populous state and one of the world's largest economies—a strong likelihood in today's digital age.

Complicating matters further, the CCPA's effective date is Jan. 1, 2020, but there are still upward of a dozen amendments that have yet to be finalized and may significantly change the law's requirements. For example, it is still unclear whether a company's employees will be included in the definition of a consumer and what that means in terms of data requirements. In another instance, the CCPA says companies cannot receive monetary or "valuable consideration" from third parties using their data, but it does not define the latter.

Even if those amendments are resolved by October—a guestimate by sources familiar with the issue—there's little time for companies to adapt their systems, although the state's attorney general has agreed to delay enforcement for six months.

The findings of a March survey by Compliance Week and TrustArc. a privacy compliance and security company, were grim. It found that 45.6 percent of surveyed compliance professionals said their companies were working on preliminary plans, while 26 percent said they hadn't started at all, and 13 percent said they had plans but implementation had yet to start. Only 15 percent said their plans were "well underway."

Late to the game?

Many companies have no doubt made significant progress since March. However, for those that have yet to deal with GDPR or industry-sector privacy requirements, such as the healthcare industry's Health Insurance Portability and Accountability Act (HIPAA) or the financial industry's Graham-Leach-Bliley Act, the task is daunting. Rich Vestuto, managing director of Deloitte Risk and Financial Advisory, noted that customer data can reside hidden away and vulnerable on a server somewhere within a company's four walls, and it may have been sent to any number of third parties.

"Is the company using an outside benefits company or human-resources provider, or an email marketing or affinity program?" Vestuto asked. "It really takes a team to go in and put together an attack plan, to interview people, talk to IT and the different businesses, and try to build a map of where everything is and where there may be sensitive data."

Vestuto said that means interviewing anybody who might have some kind of "input, some premier knowledge" about what is happening to the company's data. In an airline, for example, it would be important to talk to the division handling its affinity program about the type of data they have and whether there currently are restrictions for handling it. Reviewing any contracts with third parties is also key, making sure there is a clause ensuring those parties protect the data.

Vestuto added that companies that have yet to start that process are "already late to the game," and if they haven't implemented a similar program for other regulations, "Then they're way behind."

Those companies had best catch up, even if the steep fines for CCPA infractions are delayed, because noncompliance could severely impact their businesses. "The most important driver for most companies," said Dave Deasy, SVP of marketing at TrustArc. "is that their customers and vendor partners won't do business with them if they can't document their compliance."

continued on page 16



Create a new reality

No matter what is in store for you today or tomorrow, ION Treasury is the partner for you.

ION offers distinct treasury management systems from core to enterprise, from on-premises to cloud.

So no matter where you're headed, we'll get you there.









ITS



IT2



Openlink



Reval



Treasura



Wallstreet Suite

treasury.iongroup.com treasury@iongroup.com



CURRENT EVENTS continued

Deasy added that 68 percent of respondents called vendor and other third-party expectations their biggest reasons for complying with CCPA, and a similar percentage pointed to fines and class-action lawsuits.

Vestuto noted that a string of other states appear to be following closely behind with similar but nevertheless different requirements. Nevada's privacy rules go into effect in October, and Maine, Washington and New York are also mulling new requirements.

"It really takes a team to go in and put together an attack plan, to interview people, talk to IT and the different businesses. and try to build a map of where everything is and where there may be

Time to prepare

sensitive data."

It appears unlikely that the CCPA effective date will be delayed, given the rash of data breaches at name-brand companies, including Equifax, Marriott International, Uber and Yahoo. Capital One recently announced a hacker gaining access to 100 million customer accounts and credit card applications.

In addition to keeping customer data secure, companies will have to be able to respond to consumer rights requests. Vestuto said that CCPA is somewhat narrower in terms of requirements and at first blush appears to omit the GDPR's requirement to keep an inventory of data. However, if a customer requests to see all the data a company has about him or her or to delete that data-both consumer rights under CCPA—the company will have to have ready access to that data.

Similarly, GDPR's privacy-by-design provision requires companies building new systems and processes and making changes to them to consider privacy requirements throughout that lifecycle, and CCPA does not.

"On the other hand, if I don't do something related to the changing processes, my data inventory and data-privacy programs get stale very rapidly." Vestuto said. "So we recommend to clients that, even though there's no explicit regulatory requirement, it's prudent from an operational standpoint to

Deasy said CCPA is impacting all industries, but in particular sectors such financial services, telecom and utilities, since they tend to be U.S.-centric and don't have the GDPR head start.

Companies collecting large volumes of personal information and sharing it with third parties are particularly at risk, Vestuto noted. He added that technology companies, especially those in social networking, are the "prototypical" example of organizations that will be impacted by CCPA and must be prepared to follow through on subject rights requests.

"However, they're more mature in terms of data privacy than many other companies," he said. "Companies such as consumer products may not be nearly as sophisticated."



AFP 2019 has multiple sessions on the management of data in the Payments track.





Elevate your opportunities by actively segmenting your cash.

Our active approach to cash management provides new thinking across the short-term investment horizon. With more than \$100 billion in liquidity assets, we bring a custom perspective backed by deep expertise into view with our global liquidity-dedicated portfolio management and research teams. Let us help you take advantage of all the opportunities in liquidity, including money market funds, ETFs and short-term fixed income.

Advance your operating, core and excess cash segments by investment horizon and liquidity needs. Contact Invesco today.

invesco.com/cash (800) 659-1005

¹ Data as of June 30, 2019.



FP&A can't always give business partners what they want

FP&A is a maturing discipline with multiple stakeholders around the company. Because of that fact, it can sometimes draw us into conflicting stances. It is easy to organize our thinking around what is in the best interest of our stakeholders, but FP&A has obligations to multiple parties: itself, the finance organization, the business partners, the business owners, and society as a whole (honor the public trust).

Yet, when trying to execute on this in real life, things become difficult. It's easy to say yes to our stakeholders but very difficult to say no. In this case we quickly start to doubt our relationships with our stakeholders. Can we still work together afterward? Will they still like me? Am I a good business partner if they see me and finance as the "department of no?"

Previously, we wrote that FP&A's mission is to drive the right strategic choices in the company.

Living up to that mission requires taking a stand; if your business partners understand that, they should also see that is critical to your role to provide an effective challenge. Maintaining your integrity and ethical conduct requires that you say no even when the easiest solution is just to say yes. A defined and easy-to-communicate framework for how we act as FP&A professionals would facilitate this.

A framework for doing the right thing

AFP has created Standards of Ethical Conduct as part of the Certified Corporate FP&A Professional certification, and they define three areas of relevant ethics: competence, confidentiality and integrity. To help you define what this could mean for your own FP&A department, this article dives one level deeper to provide tangible examples for the practitioner.

STANDARDS OF ETHICAL CONDUCT	TANGIBLE ACTIONS
Competence	
Continue to acquire an appropriate level of professional knowledge and skills in finance.	 Have or gain adequate financial knowledge through education or on-the-job training to administer FP&A responsibilities. Have or gain business and operational experience with a goal of becoming a well-rounded professional. Have a plan for the continual growth of your career, including finance, business, technology, and leadership. Leaders: ensure staff have the time and resources for continual growth. Be curious, questioning, and open to change, as well as contrary information.
Perform professional duties in good faith and in accordance with technical, legal and regulatory practices, as well as the letter and spirit of the law in the field of finance.	 Know the legal, regulatory and compliance constructs around your business to ensure your company operates within those limits. Create processes that are transparent and fair in the execution of FP&A actions.
Confidentiality	
Maintain confidential information acquired in the course of professional activities and only disclose such information when legally obligated to do so.	 Ensure access controls are in place for data. Invite the right people to meetings; know whom to include and exclude, and know who are employees versus third-party stakeholders (contractors, consultants, etc.).
Refrain from using or appearing to use confidential information for unethical or illegal advantage either personally or through third parties.	 Do not act for personal gain using material, non-public information. FP&A reports to the CFO with purview over the entire company; beware of "capture" by the business unit where decentralized FP&A benefits a single unit at the expense of the larger enterprise.
Integrity	
Practice honesty and standards of professional care in all dealings without engaging in any activity that would prejudice the ability to carry out professional responsibilities competently and fairly. Avoid conflicts of interest or the appearance thereof.	 Support your company's code of conduct, and interpret FP&A ethics within this larger framework. Surface contradictory or negative information when relevant, not avoiding conflict. The winning results are the best answers for the company and the public, regardless of where they come from.
Refrain from abusing the financial systems and markets.	Honestly and candidly report information; do not distort the truth to make the numbers fit.
Disclose fully all relevant information that could reasonably be expected to influence business dealings.	 Prepare our colleagues with the fullest, best and most relevant information. Clearly articulate assumptions, estimates, and unknowns. Beware of cognitive biases that may lead to incorrect conclusions or steer conversations. Represent data accurately, paying careful attention to scales and inclusion/exclusion of outliers.

FP&A FORESIGHTS continued

The simplest standard is still remarkably effective: "How would I feel if this action were on the front page of a news website?" By using this guide, in conjunction with the FP&A Maturity Model, we are providing resources for you to build a dynamic FP&A team and career.

Ready to say no now?

We're committed to helping FP&A professionals succeed in their careers both now and in the future, and we know how difficult it can be to say no. However, we hope you're now better equipped to deal with the difficult issues. We hope that you're able to reach a point where your stakeholders trust your no as much as they trust your yes. Then saying no becomes the easiest thing in the world!

Anders Liu-Lindberg is the senior finance business partner at Maersk, supporting their largest product, the trade lanes between Asia and Europe. He's also the co-founder of the Business Partnering Institute. Bryan Lapidus, FP&A, is the director of the FP&A Practice for AFP.



The AFP Guide to **The FP&A Maturity Model** is available for download at: **www.AFPonline.org/publications**



© 2019 BOK Financial Corporation. Services provided by BOKF, NA. Member FDIC. BOKF, NA is the banking subsidiary of BOK Financial Corporation.

Success Begins with Certification.

"

FP&A is really about being at the forefront of strategic planning and financial modeling; things that have really been extremely rewarding for me.

Megan Yeager, FP&ADirector of Financial Planning & Analysis. *Sentara Healthcare*



TAKE YOUR CAREER TO NEW HEIGHTS.

Earn your FP&A Credential. fpacert.org/fpasuccess

Golng omewhere

RTP starts to snowball as corporates favor its speed and security

JOHN HINTZE

he arrival of widespread payments settled in real time appears inevitable in the United States, and support of the primary initiative to achieve that goal looks to be snowballing.

Early adopters

Uber, Amazon and other companies conducting business over the internet provide their services in real time, but the associated payments can take several hours and more often a day or longer to catch up.

"It becomes dissatisfying when you can do everything online in real time, but the payments can't move as quickly," said Thomas Spataro, CTP, U.S. treasurer at Computershare, the largest stock transfer agent that provides corporate trust, stock transfer and employee share plan services globally. The company makes 50 million payments a year and also receives millions of payments.

"The first time we did an RTP payment, it literally took a few seconds to move between two banks—I couldn't even get over to other the desk fast enough—it was already on the screen when I arrived. We knew it was there, our balances were updated, and it was great having that finality."

Spataro has been working closely with his company's banks to implement real-time payments using The Clearing House's Real-Time-Payments (RTP) network, which settles payments in real time. The network was launched in autumn 2017 and has gained significant traction this year.

"The first time we did an RTP payment, it literally took a few seconds to move between two banks—I couldn't even get over to other the desk fast enough—it was already on the screen when I arrived," said Spataro, who will discuss using RTP in a session at AFP 2019. "We knew it was there, our balances were updated, and it was great having that finality."

Also working closely with its banks on RTP solutions has been Conduent, a New Jersey-based provider of digital platforms that facilitate transaction-intensive functions including accounts payable (A/P) and accounts receivable (A/R). Its clients include corporates, financial institutions and governments. Sandra Williams, general manager of banking, insurance and capital markets, said that Conduent anticipates soon launching RTP pilots in three of its key verticals: transportation, government and insurance.

"Our initial uses cases will be transforming paper to digital, reducing fraud and improving timeliness and compliance," Williams said.

RTP makes progress

RTP reached a milestone earlier this year when its 16th largest bank, HSBC, connected directly to the RTP Switch, in total representing 51 percent of demand deposit account (DDA) balances in the U.S. The much smaller Avidia Bank, with \$1.6 billion in assets, is offering RTP capabilities through PayFi, said James Colassano, SVP, product development and strategy at TCH. Other third parties servicing regional banks, including FIS, Jack Henry, Finastra, and BNY Mellon, are either connected to RTP or planning to implement it, he said, adding that TCH expects the number of banks directly connecting to the RTP Switch to nearly double by year-end.

Reaching as many banks as possible is critical to assure RTP users that payments will, in fact, arrive and settle in real time. Recognizing the need for such a payment system, the Federal Reserve requested comment last October on the actions it could take. In a letter to senators dated July 26, 2019, Fed Chairman Jerome Powell said the Fed is "seriously considering" proceeding with a 24/7/365 payment service and expanding the hours of its settlement service to match. Less than two weeks later, the Fed revealed that it is developing a round-the-clock, real-time payment and settlement service. Dubbed the FedNowSM Service, it will likely make its debut in 2023 or 2024.

continued on page 24

Fearless Girl is Reinventing Investing



Sculpture by Kristen Visbal

We ignited a global conversation about the power of women in leadership with Fearless Girl, and called on companies to take action. 577 companies have now added women to their boards as a result.¹ And our work continues.

Learn more about our Global Cash business, managing \$336 billion² in money market funds and short-term fixed income strategies, at **ssga.com/cash**

- State Street Global Advisors Asset Stewardship Team, August 2019.
- 2 State Street Global Advisors as of June 30, 2019.

 @2019 State Street Corporation. All Rights Reserved.

 ID46606-2377341.4.1.GBL.RTL 0919 Exp. Date: 09/30/2020



PAYMENTS continued

Whether the Fed's system ultimately supports RTP or competes against it, RTP offers attractive features, including its credit push system that requests payer approval, whether from a consumer or corporate, before the payment is made.

payments, often cash based and somewhat urgent. Gig economy workers, for example, like to be paid for their work soon after it is completed, and Colassano noted that RTP is being used to pay entertainers or staff at sporting events. In the last year, Colassano

"When we pull money from an account using RTP, it's final," Spataro said. "Now we can confidently do the transactions on the business end without having any issues."

Spataro said that the requestfor-payment approach will be very helpful when collecting outstanding payments, invoices and payments for products that require timely funds transfers to finalize or clear up a transaction. Today, some transactions can be reversed after the transaction has happened, and if they are tied to securities then it can cause a lot of work and cost between the financial institutions.

"When we pull money from an account using RTP, it's final," Spataro said. "Now we can confidently do the transactions on the business end without having any issues."

Williams also favored RTP's instant settlement, irrevocability and request-for-payment systems, and she pointed to its sophisticated messaging, something other payment methods do not offer. For example, she said that the messaging capability will facilitate A/P and A/R functions, especially for smaller businesses' B2B transactions.

"Our clients will be able to take advantage of discounts more easily and manage their cash better," Williams said. "We see a lot of the costly and risky payables transactions disappearing."

The use cases for RTP early on were mainly low-volume, irregular

said, members of the RTP corporate advisory council organized by TCH have focused more on the control that the payment system provides and the potential for higher-volume payments.

Getting ahead

Spataro said Computershare has also recognized the potential for higher-volume RTP payments, so it has sought to "get ahead of that trend" by working with its banks to implement RTP in their payment applications. The intent is to ensure that the reference information for RTP payments in their BAI files—the format for performing electronic cash-management-balance reporting—is recognized by Computershare's systems.

"One thing we don't want is for payments coming through our systems at high volume to cause a lot of issues for us," he said.

To facilitate adoption of RTP among an increasingly long list of payment methods, BNY Mellon and other large banks are working on solutions that avoid requiring corporates to adopt a new format and connectivity method. Carl Slabicki, product-group manager for immediate payments at BNY Mellon and also an AFP 2019

speaker, said his bank is working to provide corporate customers with a menu of payment options they can quickly choose from.

"We've added the ability to enter RTPs online, so they can use our online corporate cash-management portal to enter, approve and get reporting on RTPs, so if they already use the portal to access wires and ACH, now RTP is there as well," Slabicki said. "And we're also exposing it as an API for clients who want to integrate it with a local system, like an ERP system, treasury workstation, or accounts-payable platform."

Slabicki added that BNY has a number of clients now set up online to do one-off payments through the portal, and the bank is actively working with several of them to do vendor payments and B2C disbursements such as dividend payments, insurance claim payments, interest payments, and refunds.

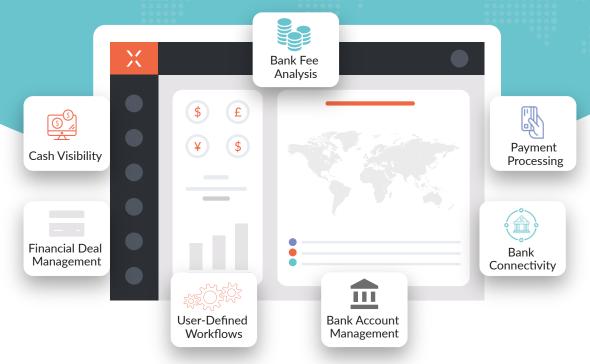
TCH's advisory committee comprises mainly very large companies, but if RTP really does begin to snowball, smaller companies should start considering how to receive those payments 24/7/365, even if they're not yet ready to send them.

"If you have a TMS [provider], you should be talking to them to see how they can help," Spataro said. "And you should also be talking to your banks to see how this is going to work with everything you do."



AFP 2019 has multiple sessions on real-time and faster payments in the Payments track.

Faster implementations. More visibility. Increased control. Better treasury management.



TreasuryXpress is putting an end to "treasury blind-spots". Built on digital Cloud technology, our on-demand treasury management software takes you beyond the limits of spreadsheets and legacy TMS technology easily, economically, and securely.

We help treasury teams overcome the risks and inefficiencies of disparate systems and manual spreadsheets, so they can achieve full cash visibility and control across their entire treasury and payment operations.

To learn how we have helped 160+ treasury teams worldwide achieve automated cash visibility and management, email us at hello@treasuryxpress.com.

Visit us at Booth #1115 during the AFP Annual Conference







A primer on hedging by intermediaries

IRA KAWALLER

firm that buys from a supplier and then turns around and sells to a customer is functioning as an intermediary. In some cases, as with energy providers, the identical product serves as both the input and the output, but in more general cases, the intermediary would likely modify the input, somewhat, to accommodate the specific needs of the end-customer. This article looks at the way firms of this type should be thinking about and managing the price risks that are inherent in their structures.

Mitigating price risk

First, consider the least risky way of managing this business. With this orientation, management would explicitly link purchases and sales in order to realize a known profit margin, deal by deal. To affect



this outcome, the firm would price sales based on the cost of associated purchases, or vice versa. Effectively, this approach would coincidently pair transactions as closely as possible. The approach would apply whenever suppliers and customers were willing to accommodate to the same delivery schedules. Put another way, this risk-averse orientation would work equally well whether intended delivery dates were imminent or deferred.

Typically, the firm would maintain ongoing and current knowledge about the prices available from suppliers, such that the company could quote a price to the customer with an acceptable markup. But suppose suppliers sell exclusively in the spot market (i.e., for immediate delivery), while a customer wants to set a price for a delivery six months in the future. Hedging solves this

problem. The firm would be able to price this sale to the customer by entering into a derivative contract to lock in the prospective costs of the related inputs. The sales price would be determined on the basis of the pricing of the derivative at a level that assured the desired profit. The hedge would thus serve to preserve the low-risk orientation that was originally intended. Importantly, to the extent that the purchases and sales are not entered contemporaneously as described above, the firm would necessarily be introducing price risk into the business model.

Rather than setting the prices of inputs and outputs simultaneously, suppose the firm purchased inventory without coincidentally arranging to sell those inputs. This firm would be exposed to the risk of prices falling, which would adversely affect inventory values, the value of any firm commitments

to buy inventory, and revenues derived from prospective sales based on prospective market conditions. At the other extreme, another firm might commit to fixed-price sales without pre-arranging the price of the required inputs to satisfy those sales, expecting to buy those inputs at future dates. In this instance, the firm would risk rising prices during the intervening period.

Suppose the spot price of copper was \$2.65 per pound and the forward price for delivery six months hence was \$2.67, it would only make sense to buy in the forward market (without a corresponding sale), if management believes that the spot market price would rise even higher than \$2.67 by the forward value date.

Turning to the firm with the appetite to take on more price risk, the idea would be to arrange trades in a manner that reflected the firm's price forecasts. For example, suppose the firm thought that prices were likely to rise for the foreseeable future. With this view, it would be reasonable for that firm to build up inventories. Alternatively, firms could enter into forward purchases (i.e., firm commitments), but these trades would only make sense if the firm's price expectation exceeded the implicit forecast that are inherently built into the forward purchase prices. Forward prices dictated by the forward purchase contracts would be (or should be) of critical concern. For example, suppose the spot price of copper was \$2.65 per pound and the forward price for delivery six months hence was \$2.67, it would only make sense to buy in the forward market (without a corresponding sale), if management believes that the spot market price would rise even higher than \$2.67 by the forward value date.

The alternative view of prices falling presents a more challenging managerial situation. The operating assumption is that declining prices would affect prospective input costs and prospective prices on yet-tobe priced future sales, as well as inventory prices. Here, it's critical to compartmentalize inventory or firm purchase commitments that have been paired with contracted forward deliveries to clients, versus unallocated inventories or commitments. The profit margin on the paired transactions would have already been secured, such that for all practical purposes, these paired transactions would not be subject to price risk. Additionally, new pairings of inputs and outputs would also be largely immunized from the expected price effects, as the purchase and sale exposures could reasonably be expected to be offsetting-i.e., price fluctuations could be passed through to the end customer. Thus, the only bona fide price exposure to declining prices would apply to unallocated inventories and firm commitments.

Unless such inventories can be drawn down prior to the feared price moves, the only real alternative would be to hedge the unpaired inventory and firm commitments. Typical strategies would include:

- Using short futures or receive-fixed swaps to lock in prices
- Buying put options or floors to limit downside risk, leaving the opportunity to enjoy the benefit of appreciating prices if the expected forecast doesn't pan out
- Entering into collars (also known as fences in some markets) to fix inventory values within some best/worst-case set of boundary price conditions.

The structure of the forward pricing curve is key. In many markets, consensus market forecasts can be discerned from these curves. When forward prices are rising with ever-increasing terms—a situation identified as contango—it's a reflection of a forecast for rising prices. On the other hand, when forward prices are falling with ever-increasing terms—a situation called backwardation—it's a reflection of a forecast

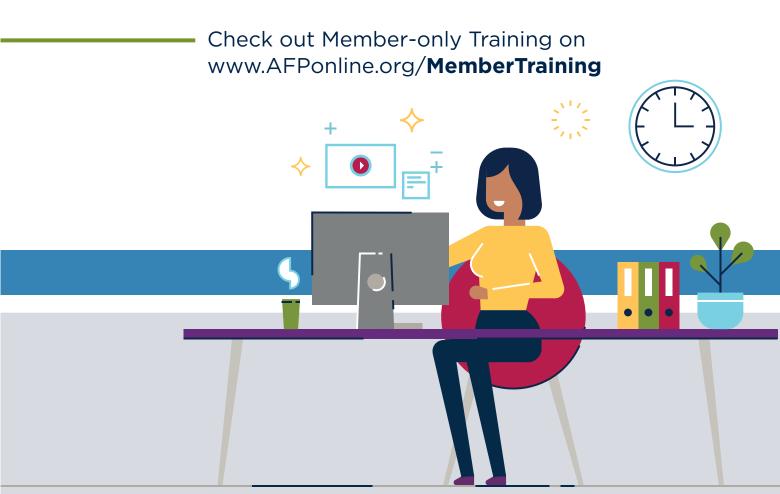
continued on page 30



AFP MEMBER BENEFIT

Learn a lot in a little amount of time with AFP Mini-Courses.

- Checklist for Preventing Card Fraud
- How to Respond to Cybercrime
- The 3 Phases of Extract-Transform-Load



for falling prices. In any case, whatever the shape of the forward curve, management should assess whether the implicit forecast is consistent with the firm's own views, or not. and hedge, or not, accordingly.

Sometimes pairing purchases and sales via hedging would lock in seemingly unattractive margins. In those cases, management might find itself between a rock and a hard place: they must either lock in the lessthan-desirable spread now, or leave the transactions unpaired and hope that the outcome evolves more favorably. However, it's important to note that with unpaired transactions, margins could actually become even narrower, or possibly negative.

Of course, the flip side is that sometimes the forward curve allows for locking in better-than-hoped-for margins. Here again, management is confronted with the choice of securing those spreads now, or not—hoping that by not hedging, even more attractive margins will ultimately be realized.

Accounting Concerns

Moving to the issue of accounting, we now consider two cases: where the default accounting is used (i.e., not hedge accounting), and when hedge accounting is used. In both cases, the assumption is that the economic objective of the derivative is to hedge inventory values.

Generally, accounting rules require inventories to be reported on the balance at the "lower-of-cost-or-market." That is, when prices rise, the carrying value remains on the balance sheet at historical costs; but when prices fall, the carrying value of inventories would have to be marked down, and the corresponding journal entry would foster a current period loss on the income statement.

The treatment of the derivative contract under the default accounting system (i.e., not applying hedge accounting) is straightforward: the contract is carried on the balance sheet at its market value, and all gains or losses (including settlements paid or received during the period) are reported in current earnings. This treatment necessarily results in an asymmetric accounting treatment when prices are falling versus when prices are rising. When prices are falling, the derivative will generate an offsetting gain; but coincidently, the inventory will be written down, fostering an offsetting loss that's also reported in current earnings.

In contrast, with rising prices, no analogous offset occurs. That is, the derivative will generate a loss in current earnings, but the inventory carrying value on the balance sheet remains unchanged. Economically, the hedge would still work, but the loss derived from the derivative would be immediate (i.e., in the current period), while the earnings from the appreciated inventory (assuming no price reversal occurs) would be realized when the inventory is released, and the sales reflecting this appreciated value occur—often in another accounting period.

A careful reader might observe that in the first price scenario, the accounting outcome achieves what hedge accounting promises the concurrent earnings recognition from the hedged item and the hedging derivative. The problem is that you cannot count on that outcome. Specifically, it will not happen when prices rise. Hence the justification for applying hedge accounting.

If special hedge accounting prerequisites are satisfied for hedging inventories, fair value hedge accounting would be the proper methodology to follow, and inventory would be the designated hedged item. Under this treatment, the derivative results are treated identically to the default treatment. The changed treatment has to do with the accounting treatment for the inventory. Under fair value hedge accounting treatment, the asymmetric treatment of inventories is superseded by symmetric treatment, whereby the carrying value of the inventories would be adjusted up (with appreciated values) and down (with depreciated values). In this way, derivative results and hedged item results are paired and coincidently reported in earnings in every period, under all pricing scenarios.

Hedge accounting, unfortunately, is not without its challenges—particularly inventory hedges. For accounting under the fair value method to reflect the intended economic outcomes appropriately, the

inventory management system must be able to differentiate between allocated and unallocated inventory positions. Derivative positions in excess of the volume of unallocated inventories could not appropriately be considered hedging contracts in an economic sense, in that no price risk would exist for allocated inventories. That said, accounting rules would allow for hedge designation for any volume at or below existing total inventories (and firm commitments). Beyond that, it should also be appreciated that fair value hedging will do nothing to alleviate the ambiguities of the gross profit calculation attributed to the method of inventory accounting that is applied, independent of any hedge accounting concerns.

Hedge accounting also requires identification of specific units of inventory being hedged. With goods entering and exiting from the inventory, this tracking could end up being difficult. It may also be somewhat nonsensical if the physical attributes of the "new" and the "old" inventory are identical, but the hedge accounting rules don't create a carveout for this situation. More to the point, hedge accounting rules do not allow for inventory substitution, such that if any inventory that had been tagged as contributing to the defined hedged item happen to get released from the inventory, the hedge relationship would need to be terminated and new documentation would be required that specifically designates new elements of the inventory as the new hedged item.

A Further Consideration

Many firms might be tempted to represent their hedges as cash flow hedges of prospective sales, rather than fair value hedges of inventories. This choice may seem to be reasonable and/or appropriate, if the inventory tracking process seems unduly onerous. This orientation recognizes that the same instrument (e.g., futures, swaps, put options, etc.) could economically solve either of the respective price risks, but it erroneously assumes that one type of hedge accounting is as good as another.

Hedge accounting, unfortunately, is not without its challenges—particularly inventory hedges. For accounting under the fair value method to reflect the intended economic outcomes appropriately, the inventory management system must be able to differentiate between allocated and unallocated inventory positions.

Cash flow hedge accounting defers the earnings recognition on the derivative until the date at which the hedged sales are posted. This treatment fails to offset the immediate earnings resulting from a downward adjustment to the carrying value of the inventory in periods when prices fall. Thus, the "solution" of simply deferring the earnings recognition for the derivatives is half-baked. As long as the price sensitivity of inventories is the true economic exposure under consideration, defining the hedged item as inventory and applying fair value hedge accounting is the better way to go.

Critically, this caveat is not meant to suggest that cash flow hedge accounting should never be used by intermediaries. Rather, it would be appropriate whenever purchase prices have been established, but related sales prices remain uncertain, or vice versa. These conditions, however, would be independent of inventory earnings impacts, and these are cases where the cash flow hedging would properly be applied.

Ira Kawaller is the principal and founder of Derivatives Litigation Services LLC.



When does a forecaster become a SUPERforecaster?

BRYAN LAPIDUS, FP&A

AFP held its first virtual roundtable book review on August 20, in which three expert practitioners discussed what they learned from the book, "Superforecasting: The Art and Science of Prediction," by Philip Tetlock and Dan Gardner. Key takeaways for each panelist are below.

Background on the book

In the summer of 2010, two U.S. intelligence officials from IARPA visited Berkeley, to meet Tetlock and a colleague, Barbara Mellers. The intelligence community offered to sponsor a massive tournament to see who could invent the best methods for creating the sorts of forecasts that intelligence analysis makes every day. Will the president of Tunisia flee to a cushy exile next month? Will an outbreak of H5N1 in China kill more than 10 people in the next six months? Will the euro fall below \$1.20 in the next twelve months?

A total of five teams ended up competing. Over four years, IARPA posed nearly 500 questions about world affairs, gathering over one million individual judgments about the future. In year one, the authors' team beat the official control

group by 60 percent, and by 78 percent in year two. The team beat university-affiliated competitors from Michigan and MIT by 30-70 percent and outperformed professional intelligence analysis with access to classified data.

Tetlock studied the individuals who consistently stood above the crowd as measured by the accuracy of their predictions and learned that there are few common behaviors and thought processes from these superforecasters.

- Panelist: Gaileon Thompson, CTP, FP&A, SVP, Global Consumer O&T Finance, Citi
- Key point: "Being a subject matter expert does not make you a better forecaster. Distilling what you know versus don't know, making intelligent assumptions, and looking at problems objectively makes you good."
- Implication for FP&A: "I felt like this section had FP&A written all over it. We are estimating things that are not always available. It is not about the amazing models and the amazing big data you have, but how you use it that counts."

"Being a subject matter expert does not make you a better forecaster. Distilling what you know versus don't know, making intelligent assumptions, and looking at problems objectively makes you good."

• From the book:

- "What [physicist Enrico] Fermi understood is that by breaking down the question, we can better separate the knowable and the unknowable...we have brought our guessing process out into the light of day where we can inspect it." (Page 111)
- "It is natural to be drawn to the inside view [about a problem]. It's usually concrete and filled with engaging detail we can use to craft a story about what's going on. The outside view [the base rate of facts about the broader question,] is typically abstract, bare, and doesn't lend itself so readily to storytelling." (Page 118)
- "When we make estimates, we tend to start with some number and adjust [called the anchoring effect], typically we under adjust, which means a bad anchor can easily produce a bad estimate...So a forecaster who starts by diving into the inside view risk being swayed by a number that may have little or no meaning. But if she starts with the outside view, her analysis will begin with anchor that is meaningful. And a better anchor is a distinct advantage."(Page 120)
- **Panelist:** Geetanjali Tandon, Digital & IT Transformation Finance Lead, Bayer Crop Science
- **Key point:** "Give the goal, not the how.' Not everyone has the answer to how something will get done; there is experimentation and exploration along the way."
- Implication for FP&A: "This approach summarizes the agile methodology, so how will finance adapt to this way of doing things? How will we support them without bogging them down with asking what the exact budget is they will need because it fits into our model."

• From the book:

 "'We let our people know what we want them to accomplish. But...we do not tell them how to achieve those goals,' - William Coyne, SVP of research and development at 3M (page 225)

- Panelist: Mike Powers, Financial Controller, Abt Associates
- Key point: "A strong leader might try to drive a particular outcome, but the benefits of group dynamics can be employed to include viewpoints that help the broader group achieve a better outcome."

• Implications for FP&A:

- "You can create a group and employ strategies to get to a better decision. Sometimes you need to have a super questioner."
- "Often, you may be the only finance person in the room and you wonder, 'Should I raise my hand when I don't really know the full dynamics, when I have not fully bought into the great idea?' Yes!" - Geetanjali Tandon

• From the book:

- Be cooperative but not deferential. Consensus is not always good; disagreement is not always bad. If you happen to agree, don't take that as proof that you are right. Never stop doubting. Pointed questions are as essential to a team as vitamins are to a body. (Page 199)
- Combining uniform perspectives only produces more of the same, while slight variation will produce slight improvement. It is the diversity of the perspectives that makes the magic work. (Page 209)

Final thought:

The book describes superforecasters as having a sense of probability. No event outcome is ever 100 percent certain, and so they revisit forecasts as new information becomes available; they have intellectual humility about their certitude and match open-mindedness with curiosity and grit.

"If you have to plan for a future beyond the forecasting horizon, plan for surprise. [P]lan for adaptability and resilience. Imagine a scenario in which reality gives you a smack in the ear...then assume reality gives you a kick in the shin. 'Plans are useless,' [General and President Dwight] Eisenhower said about preparing for battle, 'but planning is indispensable." (Page 244)



Geetanjali Tandon will speak at AFP 2019, facilitating the FP&A roundtable, "Executing on FP&A." Mike Powers will also present at AFP 2019, leading the session, "Speedy Metrics" about determining the right business metrics and quickly creating graphical interpretations of them.

LIQUIDITY MANAGEMENT



Bank relationships determine where companies put their cash

AFP RESEARCH

ank relationships are core to businesses' operating cash investment mix, according to the 2019
Association for Financial Professionals Liquidity Survey, underwritten by State Street Global Advisors.
In a survey of nearly 500 corporate treasury and finance professionals conducted in March, 93 percent of respondents consider the overall relationship with their banks to be a determinant when deciding where to place their organizations' cash and short-term investments. The continued dominance of banking relationships highlights the key recurring investment themes of safety, liquidity and yield.

Fully 68 percent of respondents indicate that the credit quality of a bank also is a deciding factor when determining where to invest. Organizations that are privately held, non-investment grade and net debtors are more reliant on their banks than are other companies.

"Banks are financial professionals' key partners and that relationship is a major determinant in deciding where to place operating cash," said AFP president and chief executive officer, Jim Kaitz. "However, our research does show that bank deposits have gradually declined year over year. It will be interesting to see if practitioners will continue to emphasize bank relationships in an uncertain interest-rate environment."

Large cash balances remain

Sixty-one percent of treasury and finance professionals report that their organizations will maintain current levels of cash balances within the U.S. over the next 12 months. A larger share of survey respondents indicates their organizations are likely to see cash balances increase over the next year rather than decrease; 20 percent of respondents anticipate their organizations will grow cash balances within the U.S. and 19 percent expect their companies' U.S. cash balances will contract.

In comparison, in 2018, 61 percent of survey respondents reported cash balances at their organizations would remain unchanged over the ensuing 12 months while 25 percent anticipated an increase. Two-thirds of organizations anticipate their cash balances being held outside the U.S. will be unchanged while 16 percent expect an increase.

"We continue to see high cash balances acting as a buffer in the face of market uncertainty," said Barry F.X. Smith, COO of State Street Global Advisors Global Institutional Group. "Cash management is increasingly being used by investment professionals as part of a broader corporate strategy."

Real-time liquidity?

Looking forward, as real-time payments take shape, treasury departments will need to consider sourcing liquidity in real time. Fully 39 percent of survey respondents expect the money market industry to provide liquidity 24/7 while 19 percent do not.

Nearly three-fourths of financial professionals participating in the survey (74 percent) indicate they would consider real-time money market fund options as a fit within their organizations' investment policy and 59 percent would consider real-time investment sweep. Real-time earnings credit rate would be suitable for 35 percent of organizations.

Expectations that the Money Market Industry Would Provide 24/7 Liquidity

(Percentage Distribution of Organizations)

	ANNUAL REVENUE ANNUAL REVENUE								
	ALL RESPONSES	LESS THAN \$1 BILLION	AT LEAST \$1 BILLION	NET BORROWER	NET INVESTOR	INVESTMENT GRADE	NON-INVESTMENT GRADE	PUBLICLY OWNED	PRIVATELY HELD
YES	39%	53%	45%	46%	51%	48%	48%	46%	53%
NO	19%	20%	26%	23%	23%	22%	23%	23%	22%
UNSURI	E 42%	27%	30%	31%	26%	30%	29%	31%	24%

Vehicles Under Consideration Assuming the Options fit with Investment Policy

(Percent of Organizations)

	ALL RESPONSES	ANNUAL REVENUE LESS THAN \$1 BILLION	ANNUAL REVENUE AT LEAST \$1 BILLION	NET BORROWER	NET INVESTOR	INVESTMENT GRADE	NON-INVESTMENT GRADE	PUBLICLY OWNED
REAL TIME MONEY MARKET FUND	74%	73%	74%	73%	74%	75%	73%	67%
REAL TIME INVESTMENT SWEEP	59%	55%	62%	59%	60%	63%	52%	61%
REAL TIME EARNINGS CREDIT RATE	E 35%	38%	33%	36%	34%	35%	36%	35%
REAL TIME INVESTMENT OPTIONS "TO FOLLOW THE SUN"	16%	13%	19%	21%	11%	11%	27%	28%

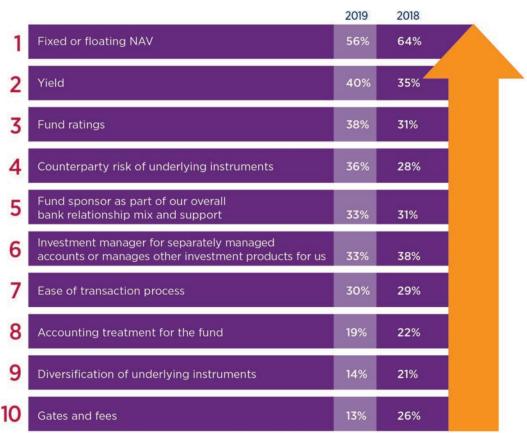
LIQUIDITY MANAGEMENT continued

Retreat to yield

The 2019 AFP Liquidity Survey also revealed a shift toward yield for money market funds. Although a fixed or floating net asset value (NAV) was still the most popular reason for choosing a money fund at 56 percent, yield ranked second (40 percent), followed by fund ratings (38 percent). This is a shift from last year when yield was ranked third after the "relationship value from the investment manager." It appears that the valuation of money market funds and bank deposits are not equally measured when interest rates have risen, everything else being equal.

Importance of Primary Drivers in Selection of Money Market Fund

(Ranked on a Scale from 1-10, where 1 is Most Important and 10 Least Important)

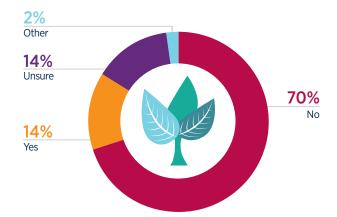


ESG investment parameters off to a slow start

Only 14 percent of survey respondents consider ESG investment parameters when managing operating cash. Meanwhile, 70 percent do not consider ESG at all and 14 percent are unsure. Net investors (19 percent) and larger organizations with annual revenue of at least \$1 billion (17 percent) are more likely to consider ESG as a parameter than are other organizations.

ESG (environmental, social and governance) Investment Parameters in Operating Cash

(Percentage Distribution of Organizations)



Safety first

Despite a strong U.S. economy, treasury and finance professionals continue to be apprehensive about drawing down on their organizations' short-term cash and investments. Safety remains the most important short-term investment objective for treasurers when it comes to their organizations' cash liquidity needs; 64 percent of respondents cite safety as their most valued short-term investment objective.

Objectives of Cash Investment Policy

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



It is encouraging to note that the share of survey participants highlighting liquidity as a priority—33 percent—is the highest percentage since AFP began conducting its liquidity survey. This group of practitioners is more inclined than they have been in the past to invest their organizations' cash and short-term investments in vehicles other than bank products, with government/Treasury money market mutual funds, Treasury bills, commercial paper and prime funds being the likely alternatives.

Full results are available at: www.AFPonline.org/liquidity



THE VEGAS SPOTLIGHT IS ALL YOURS.

CALL FOR SPEAKERS NOW OPEN Learn more AFP2020.org

/1FP 2020
LAS VEGAS | OCTOBER 18-21

SATURDAY OCTORED 19			
SATURDAY, OCTOBE	R 19		
8 a.m5 p.m.	Registration	BCEC/North Lobby	
10 a.m5 p.m.	Satellite Registration	Boston Park Plaza Hotel	
8:30 a.m4:30 p.m.	CTP Exam Review Course/Day 1 of 3	Room 158	
8:30 a.m4:30 p.m.	Pre-Conference Workshops		
1-5 p.m.	AFP Executive Institute Lounge —Sponsored by PNC	Room 255	
1-4 p.m.	Speaker Ready Room	Room 203	
SUNDAY, OCTOBER	20		
7:30 a.m-6:30 p.m.	Registration	BCEC/North Lobby	
7:30 a.m4 p.m.	Satellite Registration	Boston Park Plaza Hotel	
8-8:30 a.m.	Annual Meeting	Room 155	
8 a.m3:30 p.m.	Pre-Conference Workshops		
8 a.m4 p.m.	Speaker Ready Room	Room 203	
8 a.m4 p.m.	AFP Executive Institute Lounge — Sponsored by PNC	Room 255	
8 a.m3:30 p.m.	CTP Exam Review Course/Day 2 of 3	Room 158	
12:45-1:15 p.m.	Executive Coaching —Sponsored by RTP	Room 256	
1-1:30 p.m.	Speaker Orientation	Room 204AB	
1:30-3 p.m.	FP&A Symposium: Career Pathing	Room 210B	
1:30-3 p.m.	Payments Symposium — Sponsored by Nacha	Room 159	
1:30-3 p.m.	Executive Roundtable — Sponsored by RTP	Room 251	
3-4 p.m.	AFP 2019 Attendee Orientation	Room 204AB	
3-4 p.m.	AFP Executive Reception — Sponsored by Chatham Financial	Room 256	
4-4:30 p.m.	Sunday Keynote Doors Open	Ballroom	
4:30-6 p.m.	Sunday Keynote featuring Robin Roberts	Ballroom	
6-7:30 p.m.	Exhibit Hall Grand Opening Reception	Halls AB	
6-7:30 p.m.	AFP Canadian Reception —Sponsored by Citi Canada	Booth 2500	
6-7:30 p.m.	LinkedIn Corner & Headshot Lounge — Sponsored by BB&T	Booth 108	
6-7:30 p.m.	Golf Simulator — Sponsored by DadeSystems	Booth 534	
7:30-9:30 p.m.	AFP 2019 Kick-Off Party	Jillian's Lucky Strike & Loretta's Last Call	

Program as of September 16, 2019. Please see the AFP 2019 App for updates.

MONDAY, OCTOBER	21	
7:30 a.m5 p.m.	Registration	BCEC/North Lobby
7:30 a.m5 p.m.	AFP Executive Institute Lounge — Sponsored by PNC	Room 255
7:30 a.m5 p.m.	Speaker Ready Room	Room 203
7:30-8:30 a.m.	Attendee Breakfast	Hall B
8-9:30 a.m.	Payments Breakfast — Sponsored by Bottomline Technologies, Discover Financial Services, Fiserv, Nacha and	Room 156ABC
8-9:30 a.m.	AFP Executive Breakfast —Sponsored by RBC	Room 258ABC
8:30-9:30 a.m.	Concurrent Educational Sessions	
8:30-9:30 a.m.	FP&A Roundtable: Executing on M&A	Room 209
8:30 a.m-5 p.m.	Exhibit Hall Open	Halls AB
8:30 a.m5 p.m.	Golf Simulator — Sponsored by DadeSystems	Booth 534
8:30 a.m5 p.m.	LinkedIn Corner & Headshot Lounge — Sponsored by BB&T	Booth 108
8:30 a.m5 p.m.	CTP Exam Review Course/Day 3 of 3	Room 158
8:30 a.m5:30 p.m.	AFP Conversations Podcast — Sponsored by Santander	NE Lobby B1 (outside of Room 155)
9:30-10:30 a.m.	Exhibit Hall Refreshment Break — Sponsored by Priority Commercial Payments	Halls AB
9:45-10:15 a.m.	Executive Coaching — Sponsored by RTP	Room 256
9:50-10:20 a.m.	Learning Lounge Sessions 1 and 2 — Sponsored by SunTrust	Booths 2944 and 2854
9:50-10:20 a.m.	MindShift Stage Presentation	Booth 2500
10:30-11:45 a.m.	Concurrent Educational Sessions	
10:30-11:45 a.m.	AFP Executive Institute Session — Sponsored by PNC	Room 253ABC
11:45 a.m1 p.m.	Attendee Lunch	Hall B
12- 1:30 p.m.	Industry Roundtables Luncheon Banking, Insurance, Retail, Manufacturing — Sponsored by Fifth Third Bank	Rooms 160C, 161, 162A, 162B
12-1:30 p.m.	AFP Executive Institute Luncheon — Sponsored by PNC	Room 258ABC
12-1:30 p.m.	FP&A Luncheon — Sponsored by Adaptive Insights, Host Analytics, OneStream Software, Anaplan and Vena Solution	Room 210B
12:30-1:45 p.m.	Exhibit Hall Dessert Reception — Sponsored by Priority Commercial Payments	Halls AB

AFP 2019 MONDAY, OCTOBER 21 CONTINUED ON NEXT PAGE

MONDAY, OCTOBER	21 CONTINUED	
1:15-1:45 p.m.	Learning Lounge Sessions 3 and 4 — Sponsored by SunTrust	Booths 2944 and 2854
1:15-1:45 p.m.	MindShift Stage Presentation	Booth 2500
2-3 p.m.	AFP Executive Institute Session — Sponsored by PNC	Room 253ABC
2-3 p.m.	Concurrent Educational Sessions	
2-3 p.m.	Payments Roundtable: Accounts Payable — Sponsored by Tradeshift	Room 159
2-3 p.m.	Industry Roundtables Government, Energy & Utilities, Healthcare & Se Education & Non-Governmental Organizations — Sponsored by Fifth Third Bank	Rooms 160C, 161, 162A, 162B rvices,
3-3:45 p.m.	Exhibit Hall Refreshment Break —Sponsored by Priority Commercial Payments	Halls AB
3:30-3:45 p.m.	MindShift Keynote Doors Open	Ballroom
3:45-5 p.m.	MindShift Keynote featuring Rana el Kaliouby, PhD — Sponsored by Capital One Commercial Banki	
5-6 p.m.	FP&A Reception — Sponsored by Adaptive Insights, Host Analytics, OneStream Software, Anaplar	Northwest Lobby Bump out (outside Room 207) and Vena Solutions
5-6 p.m.	Payments Mixer — Sponsored by Bottomline Technologies, Discover Financial Services, Fiserv and Nacha	Room 160C
TUESDAY, OCTOBER	22	
		
7:30 a.m3 p.m.	Registration	BCEC/North Lobby
		BCEC/North Lobby Room 255
7:30 a.m3 p.m.	Registration AFP Executive Institute Lounge	-
7:30 a.m3 p.m. 7:30 a.m3 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC	Room 255
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room	Room 255 Room 203
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast	Room 255 Room 203 Hall B NE Lobby B1
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155)
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator — Sponsored by DadeSystems LinkedIn Corner & Headshot Lounge	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB Booth 534
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator — Sponsored by DadeSystems LinkedIn Corner & Headshot Lounge — Sponsored by BB&T	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB Booth 534
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator — Sponsored by DadeSystems LinkedIn Corner & Headshot Lounge — Sponsored by BB&T Concurrent Educational Sessions AFP Executive Institute Session	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB Booth 534 Booth 108
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30-9:30 a.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator — Sponsored by DadeSystems LinkedIn Corner & Headshot Lounge — Sponsored by BB&T Concurrent Educational Sessions AFP Executive Institute Session — Sponsored by PNC Payments Roundtable: Accounts Receivable	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB Booth 534 Booth 108 Room 253ABC
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30-9:30 a.m. 8:30-9:30 a.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator — Sponsored by DadeSystems LinkedIn Corner & Headshot Lounge — Sponsored by BB&T Concurrent Educational Sessions AFP Executive Institute Session — Sponsored by PNC Payments Roundtable: Accounts Receivable — Sponsored by Transfermate	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB Booth 534 Booth 108 Room 253ABC Room 159
7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30 a.m3 p.m. 7:30-8:30 a.m. 8 a.m5 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30 a.m5:30 p.m. 8:30-9:30 a.m. 8:30-9:30 a.m. 9:30-10:30 a.m.	Registration AFP Executive Institute Lounge — Sponsored by PNC Speaker Ready Room Attendee Breakfast AFP Conversations Podcast — Sponsored by Santander Exhibit Hall Open Golf Simulator — Sponsored by DadeSystems LinkedIn Corner & Headshot Lounge — Sponsored by BB&T Concurrent Educational Sessions AFP Executive Institute Session — Sponsored by PNC Payments Roundtable: Accounts Receivable — Sponsored by Transfermate Exhibit Hall Refreshment Break Executive Coaching	Room 255 Room 203 Hall B NE Lobby B1 (outside Room 155) Halls AB Booth 534 Booth 108 Room 253ABC Room 159 Halls AB

TUESDAY, OCTOBER	R 22 CONTINUED	
9:50-10:20 a.m.	MindShift Stage Presentation	Booth 2500
10:30-11:45 a.m.	Concurrent Educational Sessions	
10:30-11:45 a.m.	AFP Executive Institute Session — Sponsored by PNC	Room 253ABC
11:45 a.m1 p.m.	Attendee Lunch	Hall B
12-1:30 p.m.	AFP Executive Institute Luncheon — Sponsored by PNC	Room 258ABC
12-1:30 p.m.	Certification Luncheon — Sponsored by PNC	Ballroom
1-1:45 p.m.	Exhibit Hall Dessert Reception	Halls AB
1-1:30 p.m.	Learning Lounge Sessions 7 and 8 — Sponsored by SunTrust	Booths 2944 and 2854
1-1:30 p.m.	MindShift Stage Presentation	Booth 2500
1:45-3 p.m.	Concurrent Educational Sessions	
1:45-3 p.m.	Executive Roundtable — Sponsored by RTP	Room 251
3-3:15 p.m.	Tuesday Keynote Doors Open	Ballroom
3:15-4:30 p.m.	Tuesday Keynote featuring Fareed Zakaria	Ballroom
4:30-5:30 p.m.	Exhibit Hall Closing Reception	Halls AB
WEDNESDAY, OCTO	PBER 23	
7:30-8:30 a.m.	Attendee Breakfast	Hall B
7:30-10 a.m.	Speaker Ready Room	Room 203
8-9:30 a.m.	Registration	BCEC/North Lobby
8:30-9:30 a.m.	Concurrent Educational Sessions	
8:30-9:30 a.m.	FP&A Roundtable: Up the Technology Ladder — Sponsored by IBM	Room 209
9:30-10 a.m.	Attendee Refreshment Break	Concurrent Education Session Hallways
10-11 a.m.	Concurrent Educational Sessions	

RECERTIFICATION CREDITS



CTP/CCM, AND FP&A RECERTIFICATION CREDITS

Credit is earned at the rate of one recertification credit for every 50 minutes of treasury/cash management, finance or accounting-related session time, including questions and answers. CPE credit is also available. See the AFP 2019 App for details.



REPORTING CTP/CCM, AND FP&A CREDITS



Session credits are uploaded to your Online Recertification Credit Tracking record after AFP 2019 when you submit session evaluations through the AFP 2019 app. All credits will be uploaded by December 31, 2019.

FOLLOW THESE STEPS IN THE AFP 2019 APP:

>Log in >Click on the Schedule icon on the home screen >Click on the session you are attending >Scroll down >Click on the session survey and complete

Paper evaluation forms will no longer be distributed for sessions. If you participate in sessions, but do not wish to submit credits through the AFP 2019 App, you will need to manually enter the information into your Online Recertification record at www.AFPonline.org/recert



AFP Aware

Giving back to Boston

STAFF WRITERS

AFP understands the importance of providing our members with opportunities for both professional and personal growth while making meaningful connections with members. AFP Aware lets Conference attendees give back to the community while enhancing the wellbeing of others. See what we have in store for you at AFP 2019

We are pleased to announce that BBVA is sponsoring this year's AFP Aware Community Service Day. "This year marks our tenth consecutive year of sponsoring AFP Aware," said Karen Grekstas, Executive Director of Treasury Management Solutions and Services for BBVA USA. "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 USA's 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.

OFFSITE PROJECT: Love Your Block

Sponsored by BBVA

In 2015, the city of Boston kicked off the Love Your Block program thanks to Cities of Service. Love Your Block is now a permanent Boston program that includes mini-grants, neighborhood cleanups, and community tool sheds. The Office of Civic Engagement continues to urge Bostonians to revitalize their neighborhoods, one block at a time.

Volunteers will participate in a clean-up and beautification project at a local elementary school. Projects include creating learning gardens, painting blacktops, and adding playground benches.

Registration is required. Transportation to and from the school, breakfast, and lunch will be provided.

SUNDAY, OCTOBER 20th

, , , , , , , , , , , , , , , , , , , ,		
BREAKFAST	8:30-9 a.m.	Room 211
OFFSITE PROJECT	9-11 a.m.	Sarah Greenwood School
LUNCH	11 a.m12:30 p.m.	Room 211



ONSITE PROJECT: Pine Street Inn

Sponsored by BBVA

2019 is Pine Street Inn's fiftieth year serving the community. Their goal is to move men and women out of homelessness as quickly as possible. Services provided include shelter, outreach, facilitating moves to permanent housing, and workforce development. Their outreach teams have never missed a day or night supporting homeless men and women on the streets.

Volunteers will assemble hygiene kits and utensil packs that will be given to homeless individuals in the local area. The hygiene kits contain personal toiletry items vital for daily living. The utensil packs are an important part of meal service, both at the shelters and on the streets.

Registration is required. Breakfast and lunch will be provided.

SUNDAY, OCTOBER 20th

BREAKFAST	8:30-9 a.m.	Room 211
ONSITE PROJECT	9-11 a.m.	Room 212
LUNCH	11 a.m12:30 p.m.	Room 211

PaintFest

Sponsored by BBVA

For the tenth year in a row, PaintFest will be featured at the AFP conference. Make sure to visit the PaintFest booth #755 to paint pre-drawn murals provided by the Foundation for Hospital Art. The murals will be donated to healthcare facilities across the country. The Foundation for Hospital Art's mission is to give comfort and hope to those who suffer in hospitals by providing them with murals at no cost in order to soften the experience for patients, families, and hospital staff.

Paintfest (Booth 755)

SUNDAY	6-7:30 p.m.
MONDAY	8:30 a.m5 p.m.
TUESDAY	8:30 a.m1 p.m.



Sponsored by Basware

This year we're offering something cute and fluffy to brighten your day. Introducing our new AFP Puppy Park! Did you know dogs help humans reduce stress? Studies show that playing with or petting an animal can increase levels of stress-reducing hormones and decrease production of stress hormones.

We have partnered with **Great Dog Rescue New England** to have adoptable dogs available during our show. (Please note adoptions are only possible for attendees living in New England States - MA, NH, VT, ME, CT, RI.)

Stop by the AFP Puppy Park located in the North Lobby adjacent to registration to find a little puppy love.

AFP Puppy Park (North Lobby)

SUNDAY	1-5 p.m.	
MONDAY	9 a.m1 p.m.	
TUESDAY	12-4 p.m.	



STAFF WRITERS

AFP 2019 Pinnacle Award

Baird, Expedia Group and Hyundai Capital America named finalists

Baird, Expedia Group and Hyundai Capital America are finalists for the AFP 2019 Pinnacle Award. Sponsored by MUFG, the Pinnacle Award was established in 1997 to recognize excellence in treasury and finance.

Finalists were selected by a jury of treasury and finance professional peers. Decisions were based on innovative solutions that progress the efficiency and effectiveness of their organization's treasury and financial operations.

"The teams at Baird, Expedia Group and Hyundai Capital America exemplify innovation with solutions that not only advance their organization but the treasury and finance profession as a whole," said Jim Kaitz, president and CEO of AFP. "AFP is proud to recognize the 2019 Pinnacle Award finalists."

MUFG will make a \$10,000 donation to a charity of the winner's choice. Ranjana Clark, Head of Transaction Banking Americas and Bay Area President for MUFG will host the award ceremony before the opening keynote on Sunday, October 20 at AFP 2019.

"MUFG is pleased to sponsor the Pinnacle Award to recognize the innovation and achievements of treasury and finance professionals, and their impact within the industry," said Ms. Clark. "MUFG shares the AFP's commitment to education and honoring excellence in treasury and finance that these Pinnacle Award finalists demonstrate."

"The teams at Baird, Expedia Group and Hyundai Capital America exemplify innovation with solutions that not only advance their organization but the treasury and finance profession as a whole. AFP is proud to recognize the 2019 Pinnacle Award finalists."

Pinnacle submissions

Baird's submission focused on intelligent automation. To overcome the labor-intensive process of the settlement cycle for \$208B in client accounts, Baird combined a multitenant software-as-a-service (SaaS) treasury management system (TMS), application programming interface (API) technology and the principles of robotic process automation (RPA). APIs were key as they allowed the TMS to speak with the front and back office systems to validate the record. In addition, Baird now has an API web server that is being used for applications across the company to support the business.

Expedia Group's submission demonstrates the benefits of developing a quality benchmarking system. Expedia Group created a transformation layer to cleanse and transform data for subsequent loading into Power BI, which served as the melting pot of intelligence of all data sources. The output from Power BI translated to a powerful dashboard for the team to validate past decisions and uncover areas of opportunity. This new process allows Expedia Group to evaluate the economic benefits of the decisions it is making, and as a result, the organization has seen a sharp increase in productivity, business insights and improved bottom-line metrics.

Hyundai Capital America's (HCA) submission highlights its decision to implement a new capital structure that could be agile and competitive in support of subscription ownership. HCA dramatically reduced its leverage and projected a strengthened financial profile, thereby reducing borrowing costs. The rating agency implied rating for HCA's capital adequacy improved by four full notches. The transformed funding flexibility has enabled the front-end of HCA's business to pursue new and innovative products.

The AFP Pinnacle Award annually recognizes leading finance groups for innovation, collaboration and results.

NAVIGATING the FORCES of GLOBAL DISRUPTION

Fareed Zakaria discusses the rapidly changing global landscape

ANDREW DEICHLER



areed Zakaria, best-selling author, host of Fareed Zakaria GPS for CNN
Worldwide, and columnist for The Washington Post, recently joined the
AFP Conversations podcast. In an in-depth interview, we discussed the
geopolitical risks of today and how they mirror key developments throughout human
history. Because Zakaria is so thoughtful about geopolitical affairs—and because he is
universally regarded as unbiased, objective and diplomatic—he was invited to speak at
AFP 2019 this October in Boston.

The following are four key takeaways from our interview.

Overcoming the risks of today will take strong leadership, much like in the past.

"I'm an optimist, because I tend to look back historically and we've seen these moments in the past, and we've seen democracies come through them and adjust, making necessary reforms and even maybe dialing back a little bit. But it's not inevitable. We did get through the rise of populism and anti-immigrant feelings and the assaults on democracy in the 1920s and 1930s, but it took a great depression, a World War and extraordinary political leadership from people like Franklin Roosevelt. It tells me that it could have gone another way and it could go another way. So I mean, we're not going to combat these forces just automatically. There will have to be active leadership that takes us there."

We are living in a "Post-American World." This is not due to the decline of America, but the rise of everywhere else.

"There may have been a point at which you could have said that the west should have in some way kept all the intellectual property to itself and ensured that the rest of the world never advanced. But that's not really plausible and it's also important to understand that would've meant a very much smaller and a more stagnant world economy.

"By opening up the world and allowing for a kind of single system in which everybody participates, we've massively expanded the global economy. We've massively expanded the opportunities for everybody. And most American companies still employ millions and millions of people. But I think about 50 percent of the profits of America's 500 largest companies come from overseas markets. So I don't think you can stop it. It is a process that has enormous opportunities, but real challenges.

"So if you look at Americans with college degrees, who live in and around one of the 30 metro centers in America which are the real centers of economic activity and whose work in some way involves some skill, they're doing fantastically. But if you don't have a college degree, if you live in the rural part of the country and you don't have any specific skills, you're in a tough place, because what you do can be done by somebody in China at 10 percent of the price or it can be done by a machine. So you have to ask yourself, how do you do something that can't be done by somebody in China and can't be done by a machine?"

"If you go to a country like India now, and you say, 'I'm a Western company and I want to do business there,' the first question you have to ask yourself is, 'What are you bringing to the table?'"

> Due to the rise of other nations, the nature of competition between global companies has changed.

> "In the first phase [of globalization], the American companies did fantastically, because they had two things—capital and knowhow. They were the players that could come into a market and provide enormous amounts of capital. That was on a scale unimaginable in China or India. And they understood that they had much more sophisticated systems of corporate management, sales, marketing, etc. They had more computers in their supply chain, so everything worked better, and more efficiently.

"If you go to a country like India now, and you say, 'I'm a Western company and I want to do business there,' the first question you have to ask yourself is, 'What are you bringing to the table?' There are now billions and billions of dollars of private capital in India. The Indian companies operate at global levels of efficiency. And they obviously have much more sophisticated knowledge of the local market. So you have to ask a question that you didn't have to ask 20 years ago.

"What do you bring to the table? How are you adding value? What is it that distinguishes you? Now, if you're a Facebook, you have an answer to that. If you're an Amazon, maybe you have an answer. But there is an Indian competitor called Flipkart, which is giving Amazon a real run for its money. If you're Google, you have an answer to this question, but if you are a real estate company that is used to coming into these places and saying, 'Look, I've got a lot of capital so I can dominate this new market,' that's not going to be so easy. And that has been the experience."

Competition between nations, particularly China and the United States, has far-reaching implications.

"We're now entering a different world. We are entering a post-American world in which the rise of China and the rise of other countries is reshaping the balance and stability of many key parts of the world. I'll give you one example of that. You see the way in which the rise of China is now producing a reaction in America, that is epitomized by the Huawei ban. Now, if this goes through—and I'm not sure it will—but if we continue down this path, where the United States government is essentially trying to kill Huawei, the Chinese are going to decide that they have to develop an indigenous self-reliant technological capacity around software and hardware, the chips in particular.

"In turn, that will mean that countries will have to ask themselves, 'Do you want to be in a situation where the Chinese or the American government could cripple you technologically by forcing their companies not to do business with you? And would you want to double that risk by having both Chinese and American components in your system, in your supply chain?' So then you're going to start seeing the bifurcation of the world into almost two technology zones. A bipolar world of technology. That's a very different world than we've had for the last 30 years. And these kinds of issues, I think, are going to become much larger."

For more insights, the full interview is available on the AFP Conversations podcast. And don't miss Fareed Zakaria's keynote presentation, Navigating the Forces of Global Disruption, at AFP 2019.

Adaptand Adaptand Adaptand

Dismantle corporate silos through embedded process controls



he rapid growth of globalization brings equally rapid regulatory changes that compel international organizations to keep their ears to the ground and adapt. The onus of adaptation lies on treasury to comply with global audits. As regulatory audits are sent down the pipeline, proper process controls need to be in place, allowing treasurers to ensure that all subsidiaries abide by regulatory statute while simultaneously providing the central treasury with valuable systemic visibility.

Treasury departments need to implement process controls to ensure that their subsidiaries abide by regulations and provide visibility to the central treasury.

For companies expanding internationally, there are a number of regulations that treasurers need to keep their eyes on.

Basel III: The introduction of Basel III has had wide ranging implications for the way in which liquidity is viewed by financial institutions—and consequently on the pricing and services offered to corporate customers. Implementation began in 2013 and was completed in January 2019.

Money market fund regulation: European money market funds were required to comply with new rules by January 2019. While fund managers have been busy converting CNAV funds to the new LVNAV model, treasurers have had plenty to do to prepare for the changes, such as updating investment policies, engaging with auditors and checking that their cash and treasury management systems can accommodate the new products.

PSD2: One of the most significant implications of the second payment services directive (PSD2) is the move towards open banking. This paves the way for the use of application programming interfaces (APIs), to give third-party providers access to clients' bank data in order to provide related services.

IFRS (International Financial Reporting Standards) 9: IFRS 9 Financial Instruments became mandatory from January 2018, with significant implications for the accounting of financial instruments—not the least of which was removing the 80-125 percent rule for hedge effectiveness testing. Compared to IAS 39, IFRS 9 has the potential to make hedge accounting more achievable, while reducing the associated back office complexity.

IFRS 16: Meanwhile, treasurers also need to be aware of the implications of the new lease accounting standard, which came into force in January 2019. Under IFRS 16, lessees "will now be required to recognize most leases on their balance sheet," while accounting for lessors remains substantially unchanged.

Know-your-customer (KYC) compliance is a major burden for corporations around the world. With banks increasingly alert to the risk of fines, simply opening a bank account is a process that can sometimes take months to achieve. Likewise, even established relationships can come with regular requests for KYC information.

AML (Anti Money Laundering): Regulatory authorities cracking down on terrorist funding and other illicit uses of funds has resulted in this regulation.

BEPS (Base Erosion and Profit Sharing): The final Base Erosion and Profit Sharing (BEPS) Action Points were published in 2015. The objectives of the rules include preventing companies from moving profits to different jurisdictions for tax purposes. The action points include several areas which may have implications for transfer pricing, country-by-country reporting, intercompany loans and inhouse banking.

GDPR: While not aimed specifically at financial services, the EU General Data Protection Regulation (GDPR) adopted last year has had significant consequences. The regulation, which introduced strict rules for data privacy and security—and hefty fines for noncompliance—has implications for treasurers as well as their providers.

SOC1/SOC2 (Service Organizational

Control): According to the American Institute of Certified Public Accountants (AICPA), SOC reports are internal control reports on the services provided by a service organization. They offer valuable information that users need to assess and address the risks associated with an outsourced service.

In other words, Statement on Standards for Attestation Engagements (SSAE) 18 is used to regulate how companies conduct business. More specifically, it defines how companies report on compliance controls. These reports are called SOC 1, SOC 2 and SOC 3.

- SOC 1 is a control report for service organizations, which pertains to internal control over financial reports.
- SOC 2 is a report that evaluates the business information system that relates to security, availability, processing integrity, confidentiality, and privacy.
- SOC 3 is a general use report and does not provide the same examination details as the SOC 1 and SOC 2. The SOC 3 report is primarily used as marketing material.

FATCA: The Foreign Account Tax Compliance Act (FATCA), which was passed as part of the HIRE Act, generally requires that foreign financial institutions and certain other nonfinancial foreign entities report on the foreign assets held by their U.S. account holders or be subject to withholding on withholdable payments. The HIRE Act also contained legislation requiring U.S. persons to report, depending on the value, their foreign financial accounts and foreign assets. Care should be taken when dealing with countries on their blacklist.

Demise of Libor: With Libor expected to be phased out by 2021, structural changes in capital markets are requiring treasury departments to reevaluate their debt and derivative structures. While the valuation of derivatives has traditionally relied upon a discount curve "derived from the Libor rates and their underlying swaps, futures etc.," the reduced liquidity in Libor is necessitating a change to discount curves based off overnight indices such as SONIA (in the UK), SOFR (in the U.S.) and EONIA (in the EU).

Implementing process controls

As we will discuss in our AFP 2019 session, treasury departments need to implement process controls to ensure that their subsidiaries abide by regulations and provide visibility to the central treasury. There are a number of tools that can be used today if you have a SaaS treasury management system, including some of the standard traditional ones used by most companies. Treasury policy requires visibility of the following areas in our TMS solution:

- Bank accounts
- Facilities
- User access
- Cash balances
- Foreign exchange deals (internal and external)
- Intercompany loans
- Counterparty exposure
- Market Data.

Treasury should also complete reviews in three key areas.

Treasury policy: The policy should be reviewed regularly and signed off by local treasurers.

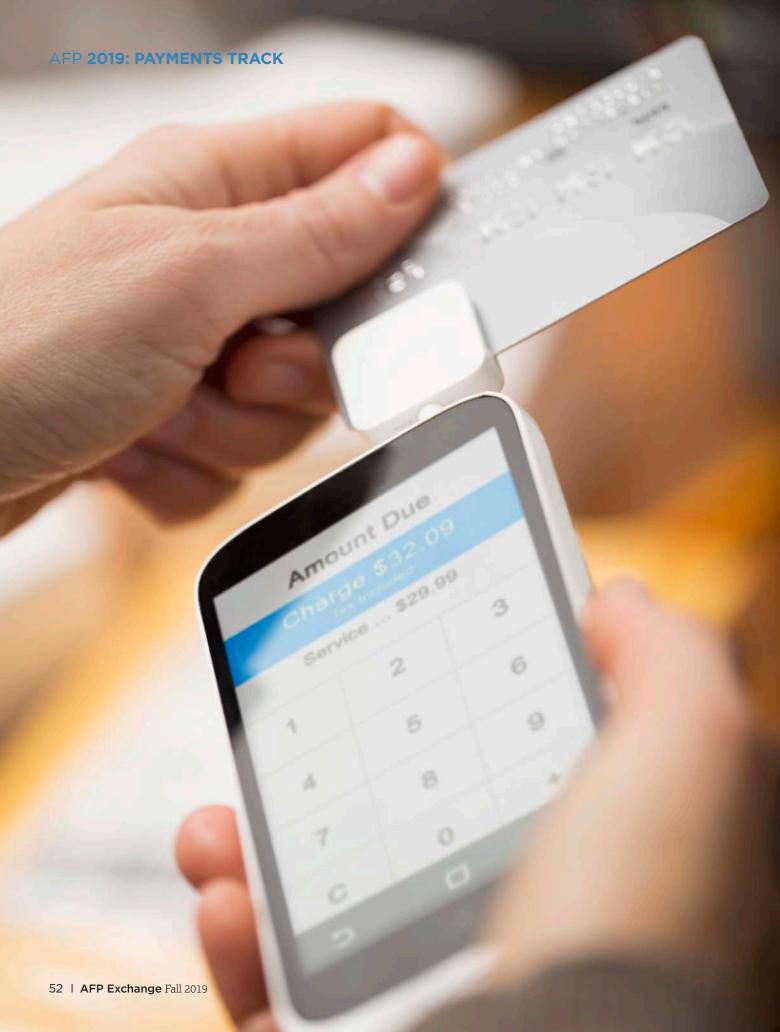
Internal audit: Regular reviews of internal audit requirements are needed to ensure that treasury processes are robust and suitably controlled. If a TMS is involved, consider what processes could be automated

Treasury procedures: Regularly review your procedures, and the use of technology to simplify the requirements from your subsidiaries, where possible. Ensure they are compliant and are updated.

We will go into even more detail in our session at AFP 2019, examining the intricacies of financial audits and highlighting how key controls will solidify company-wide compliance. I hope to see you all there.



Royston Da Costa is assistant group treasurer for Ferguson, Plc. Don't miss his AFP 2019 session, Dismantling Corporate Silos Through Embedded Process Controls in the Treasury Management track.



Some merchants will see their swipe costs increase by up to five percent from 2018 to 2019 simply due to fee increases. This is not to mention the additional costs created by upgrading POS systems and payment terminals, adding a security solution and implementing omnichannel strategies.

ANAND GOEL

Reducing payment fees isn't just a fad

U.S. merchants will spend over \$90 billion in credit card processing or swipe fees in 2019. For many organizations, swipe fees represent one of their top five operating costs. Swipe fees continue to grow, not only due to an increase in card sales, but also due to increases in interchange and network fees. Just this spring, Visa and MasterCard announced significant increases in certain interchange categories and cross-border fees. Some merchants will see their swipe costs increase by up to five percent from 2018 to 2019 simply due to fee increases. This is not to mention the additional costs created by upgrading POS systems and payment terminals, adding a security solution (e.g. encryption, tokenization, fraud) and implementing omnichannel strategies (e.g., endless aisle, global tokens).

AFP 2019: PAYMENTS TRACK continued

It has become imperative for treasury leaders to reign in out-of-control card processing costs. Passive management of this expense category isn't an option for organizations seeking efficiencies and competitive advantage. Managing swipe fees is a process like any other process inside a company. And like any process, it can be made more efficient by measuring and optimizing all the components in the (payments) value chain. Our guidance below relies upon 200-plus consulting engagements with merchants processing \$100 million or more in card sales per year.

Interchange fees - Optimize and negotiate

For most organizations, interchange fees or fees paid to card issuers, comprise the single largest component (about 85 percent) of the total cost of processing card transactions. If the cost of card acceptance is 2.00 percent, then about 1.70 percent goes to the bank that issued the card.

Interchange revenues pay for the cost of money (the bank provides an interest free loan, to a person's credit limit, if the card balance is paid in full), rewards programs, internal costs including fraud, and profit. There are two ways to measure and optimize interchange. First, merchants should measure their downgrade ratio, or percentage of sales receiving suboptimal interchange rates. Any given retail or e-commerce transaction is subject to four or more different published interchange rates, based on submission timeliness and data elements sent with authorization and settlement records.

For instance, if the POS entry mode or transaction amount do not match in the authorization request and settlement file, then the transaction will downgrade and be subject to higher interchange fees. The target downgrade ratio for merchants is 2.0 percent or less—anything above requires attention. Fixing downgrades could save hundreds of thousands to millions of dollars in unnecessary costs.

A second way to measure and optimize interchange is to negotiate custom or lower interchange rates with Visa, MasterCard, Discover and PIN debit networks. There are many merchants who have VPP (Visa Partner Program) and MPP (MasterCard Partner Program) incentive agreements, along with agreements with Interlink, Maestro, NYCE, Pulse, STAR, and other PIN debit networks. Merchants with significant card sales, generally billions of dollars per year or millions of transactions, have the ability to negotiate either lower interchange rates and/or quarterly rebates for credit, signature debit and PIN/PINless debit sales.

Critical to these negotiations is a merchant's sophistication (e.g., understanding of similar agreements in the industry), a merchant's own card volume growth potential and a merchant's ability to shift volume amongst different debit networks. This last element can play an

outsize role if a merchant or its processor can route debit transactions to the lowest cost or preferred network. Of course, merchants can also negotiate with American Express. Instead of negotiating interchange, merchants are negotiating discount rates. Similarly, critical to negotiating with American Express is the merchant's sophistication, their AmEx card volume growth potential and AmEx's pricing competitiveness.

Network fees - Audit and optimize

The second largest expense of card processing is network fees, which comprise about 10 percent of the total cost of card payments. These fees serve as revenue for Visa, MasterCard and Discover. They are charged both as a percentage of sale and per transaction.

There are two opportunities to optimize these fees. First, merchants should audit them to ensure that they aren't artificially inflated by their processor and merchants are in fact, paying published network fees. Some acquirers and ISOs/resellers tend to markup network fees for interchange pass-through merchants. This practice is unethical, perhaps illegal, but it does occur in the marketplace. In the last two years, two class action lawsuits have been settled against Mercury Payment Systems and North American Bancard/ Global Payments for such practices. A merchant should validate every network fee and seek clarification from their processor of any ambiguous charges. Merchants are eligible for refunds for inflated fees and overcharges.

The next opportunity to reduce network fees is to eliminate any transaction integrity fees. Visa and MasterCard's additional fees ranging from \$0.055 to \$0.20 per transaction when an authorization doesn't have a corresponding settlement transaction, or when a settled transaction doesn't have a corresponding authorization. The industry best practice is 1. to always authorize every transaction and 2. reverse or partially-reverse any authorizations that will not be settled. To validate a card, merchants should utilize zero-dollar authorizations.

Acquiring and gateway fees - Benchmark and negotiate

The final component and expense of card processing is acquiring and gateway fees that comprise about 5 percent of the total cost of card payments. Acquiring and gateway services may come from one or two providers. In either case, all acquiring and gateway fees are negotiable. The best practice is to perform a merchant services RFP every three to four years to not only benchmark fees in the marketplace, but also to learn about the latest payments products and solutions. We have dealt with many merchants who have had the same acquiring

When negotiating with acquirers, it is helpful to know what your peers are paying for the same type of services. However, this type of information is not readily available and may require the use of a specialized consultant or consulting firm. Such third parties have exposure to broader data sets and industry insights that can prove valuable. If a merchant does not have internal resources, outside consulting experience could prove to be highly beneficial in all of the initiatives outlined above.

Payments analytics

Benchmarking, negotiating and optimizing interchange, network, acquiring and gateway fees shouldn't be just a one-time exercise. It should be an ongoing process that is regularly monitored, measured and optimized. A time and cost-effective way to achieve this goal is to implement payment analytics. This is a systematic approach of consuming and analyzing data, whether daily, weekly or at minimum, on a monthly basis. There are so many nuances and variables that impact the cost of card payments that a structured analysis is warranted. As you know, it is hard to improve a process if it cannot be analyzed.

AFP 2019

Bringing all of these elements together at AFP 2019 in Boston, an educational session titled 'Reducing Payment Fees Isn't Just a Fad' will delve into best practices used by Tiffany & Co and Kering Americas (parent of luxury brands like Gucci, Saint Laurent, Bottega Veneta, Balenciaga, Alexander McQueen and Brioni). I'll be moderating this session, and you'll hear from treasury leaders of these iconic, global brands as they share their framework and journey on optimizing payments. They will share their perspective on many topics, including merchant services RFPs, consolidating providers, interchange optimization, alternative payments, reconciliation, and BIN analysis to better understand customers.

Remember, the payments optimization journey isn't complete for Tiffany & Co and Kering, but they have made significant progress in the last few years. Treasury and finance leaders should attend this session to learn about payments successes, failures and priorities for the future of these organizations. Session attendees will also have an opportunity to ask questions.



Anand Goel is CEO of Optimized Payments Consulting. Don't miss his AFP 2019 session, Reducing Payment Fees Isn't Just a Fad in the Payments track.





When it comes to new tech, 72% of finance professionals believe APIs will have the greatest impact on their organization.

Do you agree with them?

DOWNLOAD

AFP 2019 Electronic Payments Survey

Underwritten by J.P. Morgan

www.AFPonline.org/epayments



Why some old FP&A trends are exciting again

KIRBY LUNGER



The biggest barrier to integrated planning is no longer technology, but actual processes around sharing information, as most CFOs and senior finance leaders aren't accustomed to solutions that provide transparency for strategic drivers to their larger teams.

nyone else tired of hearing about the same old "innovative" trends in the financial planning and analysis (FP&A) arena? Here's the thing—three of those FP&A topics we hear about repeatedly that would have produced a yawn only a little while ago are now interesting and exciting again as a result of recent technological innovation.

Three FP&A trends reignited by technology

ONE: Integrated planning

For years, the Holy Grail of FP&A has been to link the long-term strategy (five-plus years out) with the long-range plan (three-to-five years out) and the annual operating plan (AOP) or annual budget. This was difficult because most budgeting solutions were built on different databases and developed by different vendors than longer-term strategic forecasting solutions.

A wave of acquisitions over the past several years, along with a general rebuild/ re-platform of somewhat mature on-premises budgeting, forecasting and planning solutions as a result of the move to the cloud, mean that most of these solutions now are integrated. This allows for truly linked budgets and forecasts and permits the technical and functional integration of plans.

In another great and very recent development, this is now reflected in the pricing and product bundling strategies of most planning software solutions as of this year. In the past 12 months, most of the product vendors—or, more accurately, software-asa-service (SaaS) providers—have moved to integrated pricing so that you can get one "seat" or license for all of these capabilities. Many of them are also now bundling other financial or corporate performance management capabilities with these seats as well, such as financial close and consolidation and profitability and cost management.

This means the biggest barrier to integrated planning is no longer technology, but actual processes around sharing information, as most CFOs and senior finance leaders aren't accustomed to solutions that provide transparency for strategic drivers to their larger teams. Luckily, most of the FP&A solutions available these days provide secure, role-based access to strategic, operational and tactical items so that team members aren't seeing content that they shouldn't see.

One of the largest barriers to adoption has been task lists and workflow related to the collection and dissemination of budgets. Many solutions contained rudimentary workflow and task list capabilities, but these often weren't well-integrated with project management solutions, email and calendaring programs, etc. Most solutions are now well-integrated with major platforms in all relevant areas.

TWO: Strategy management and analysis

In addition to the "lack of linkage" issues mentioned in item #1, we also faced another problem in the strategic planning arena. In order to look for trends that might help guide where an organization was going, practitioners had to practically have an advanced degree in statistics in order to understand how to look for correlations in data that might predict an organization's strategic direction and outcomes.

Now, many of the same planning solutions mentioned in item #1 contain predictive planning modules that autorecommend certain statistical models and correlations to help finance analysts act like quasi-data scientists to evaluate patterns. With these patterns, they can start measuring cause-and-effect relationships in their data that can then be measured and managed in a strategic planning framework that trickles down into the forecast and budget.

That said, most FP&A solutions available today don't provide a good mechanism for displaying and tracking against key performance indicators (KPIs) and require integration with analytics and data visualization solutions (formerly called "business intelligence" or "BI" solutions) to track and monitor anything other than financial metrics. This is very much an evolving area and one that the team at Performance Architects is monitoring closely, especially since this often means involving more than one vendor in a complete reporting, analysis and planning solution.

THREE: Rolling forecasting and continuous budgeting

Let's face it—we all know the budget is almost useless (or at least somewhat inaccurate) the minute that it's been completed, because the data usually doesn't refresh regularly or thoroughly enough until the next annual budgeting cycle. For years, the FP&A community has been talking about continuous or rolling forecasting and "just-in-time" budgets, but there have been some major technical obstacles to execution.

One of the largest barriers to adoption has been task lists and workflow related to the collection and dissemination of budgets. Many solutions contained rudimentary workflow and task list capabilities, but these often weren't well-integrated with project management solutions, email and calendaring programs, etc. Most solutions are now well-integrated with major platforms in all relevant areas.

In addition, the integration of role-based security into these platforms means that you can easily roll up a version, scenario or plan and see the impact of recent changes in your budget or forecast—which means your annual budget can now move to more a frequent planning model.

This means that many of our clients have moved to—at a minimum—quarterly reforecasting. Some industries have moved to even more frequent (weekly or daily) reforecasting based on the speed of change (e.g., manufacturers, retailers, etc.).

Finally, the fact that planning and forecasting is integrated from a data storage and management perspective in the same system results in a more efficient and effective way to share plan information across different planning functions and types.

The next frontier

As FP&A practitioners, we know that the best technology in the world can't fix a broken or immature process. Although these technical advances remove a lot of the barriers that stalled advancement, we still need to train, mentor and manage people to execute on processes related to these solutions. We also need to rethink how strategic, operational and tactical planning, budgeting and forecasting processes are managed in the enterprise, and to make sure these teams (often separate groups today) are incented to work together on integrated plans.



Kirby Lunger is partner, Performance Architects. Want to learn more about these topics? Attend her **AFP 2019** session, **Budgeting, Forecasting and Planning Best Practices: Customer Case Study Panel** in the **FP&A** track.

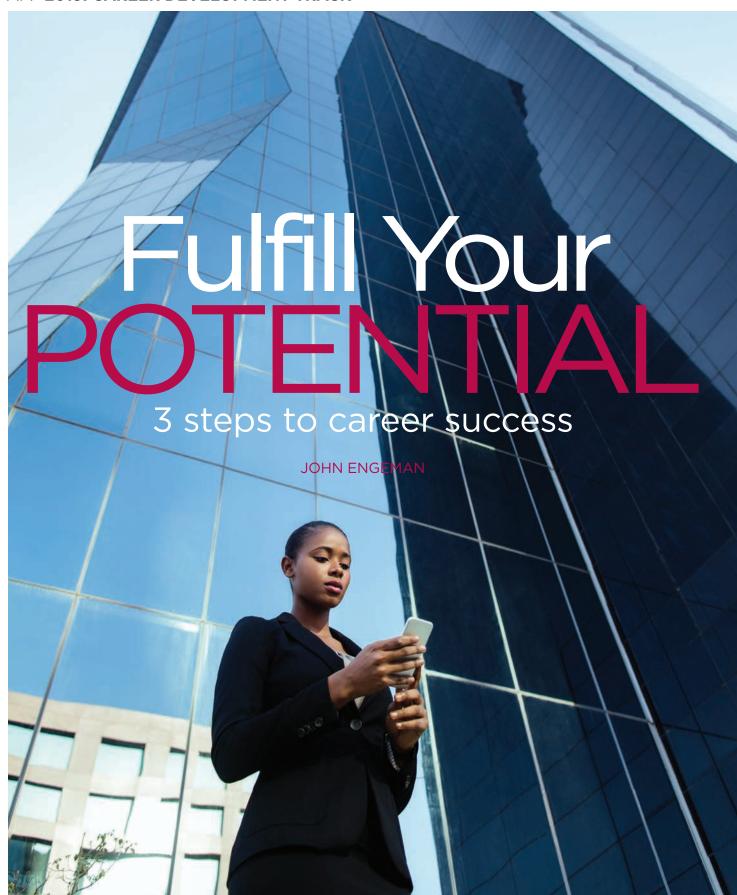


BIG TOPICS IN THE BIG EASY.

Educational sessions, speakers and networking that show you where the FP&A industry is headed to next.



Learn more at dynamic.afponline.org/finnext



BOSTON, FALL 2019—envision the buzz, fall foliage, football, networking with peers, and catching up on new ideas and technology in finance and treasury. Could it possibly get any better? Yes! Come to my AFP 2019 session, Fulfill Your Potential and Beyond: A Path for Career Success, for an engaging talk and leave with actionable steps for career success and personal growth.

You owe it to yourself and your career to invest in your future. Commit, make a plan to successfully network, learn something new, actively engage, and have fun.

Are you in your comfort zone? It's time to leap out of it and challenge yourself. This generates confidence, motivation and learning and possibly even a temporary surge in adrenaline. Leaving the safe and familiar to take a risk brings growth.



Get out of your comfort zone

There are many opportunities available and actions you can initiate that can lead to success, both professionally and personally. Are you aware of them and are you taking positive steps forward? By actively engaging and participating in experiences, expanding your comfort zone, communicating confidently, and seeking opportunities to develop, you'll gain confidence, knowledge and increased motivation. Through several examples and related personal stories, you will learn there are many opportunities to explore for success. In our session, you will learn actionable initiatives to successfully advance professionally and be fulfilled. You will be encouraged to seek out experiences to practice and develop these powerful tools.

Are you in your comfort zone? It's time to leap out of it and challenge yourself. This generates confidence, motivation and learning—and possibly even a temporary surge in adrenaline. Leaving the safe and familiar to take a risk brings growth.

AFP 2019: CAREER DEVELOPMENT TRACK continued

When we are challenged, we learn and sharpen our critical thinking. Learn to deal with change and become more confident and resilient. It becomes easier over time—gaining confidence and motivation for your future. Stretch yourself to reach the point of being comfortable with being uncomfortable. Think of the feeling of accomplishment and the stories you will have. You can start small or big, solo or with a friend—you decide.

Within this topic, we will talk about embracing failure if it happens and how to accelerate forward with greater knowledge and understanding. We will discuss stepping up and taking a swing, so as not to miss an opportunity. Often our comfort zone is untested due to fear of failure. We need to deal with both. It has been said that a comfort zone is a beautiful place, but nothing ever grows there.

How would you have responded if asked to dump tea overboard in the Boston harbor or warn locals on horseback of an impending attack?

Get involved

I cannot stress enough the importance of getting involved—at home, at work, in your community, etc. Join a group or volunteer. Leadership, communication and interpersonal skills are developed through active participation. Always be learning and networking—and AFP 2019 in Boston is a great place to do both. We have many choices in how we learn: listening, reading, visually, and by doing. Each day, and especially, at the conference, do them all.

Technology is everywhere and always changing. Do not be left behind, seek out opportunities to learn and experience technology. In addition to attending sessions to learn new ideas, trends and technology, watch the speakers, presenters and panelists. Which ones stand out as the best and why? Make notes and incorporate their techniques into your next presentation. For those presenting, ask one or two members of the audience in advance to give you feedback on your communication style from your session. Ask them to focus on one or two areas of your speaking style that you identify for them. Since they are focusing on specific techniques, you will receive valuable feedback for your next presentation. There are always opportunities to learn, although you need to prepare and establish a plan to maximize them.

As an attendee, you will be able to check the box on networking. But did you successfully network? Plan in advance whom you would like to meet, catch up with, and which companies or providers you wish to know more about. Work on your personal story so you can introduce yourself in a friendly and professional manner, incorporating the key points you wish to make in a brief greeting. You

may only have one opportunity with a specific person or company, so prepare and practice. Make a note on their business card of any points to remember during free time. Follow up with a personal note or LinkedIn connection request and tell them you met at AFP 2019 and include a brief note to reestablish your personal connection. Contribute a quality post regarding a speaker or session on social media. Engage.

Expand your world and try new experiences. Start by exploring the social activities at the conference and take advantage. Differentiate yourself while becoming more knowledgeable and interesting. Draw upon these experiences when tackling a new challenge. It is the value received through the endeavor and the personal journey that matters—not always the outcome. Stories are memorable and people relate and comprehend personal stories. New adventures and experiences lead to memorable stories and provide background knowledge for future challenges. Personal stories that are interesting and relevant are hugely popular to an audience and make a good balance with charts, facts and numbers.

Get inspired

If you want an interesting, thought-provoking and inspiring talk to propel you on a path to career success, then come experience this journey. My intent is to increase confidence, motivate you and better prepare you through rewarding experiences and recognizing opportunities to learn through participation. You will hear stories of unlikely success; it is very possible to achieve your potential and beyond. Who knows—you may even be a future conference speaker. Opportunity is knocking, are you listening and prepared? Yes!

I believe seeking out what the world has to offer through new experiences, people and places is the foundation for happiness, fulfillment and success. If this corporate treasurer can do it, so can you.

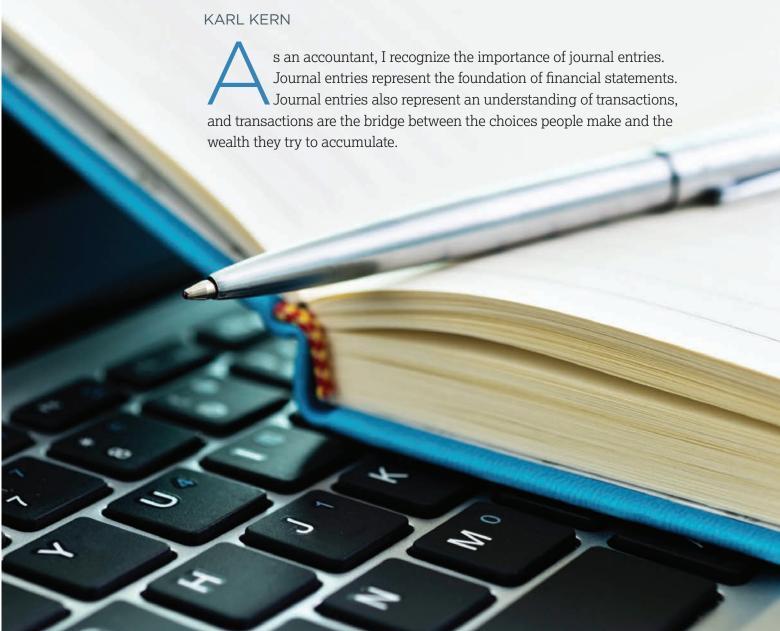
Ready now? I am and I hope to meet you. See you in Boston.



John Engeman is vice president and treasurer for National General Insurance. Don't miss his session, Fulfill Your Potential and Beyond: A Path for Career Success in the Career Development track.

Remember Your Fundamentals

FP&A professionals, don't forget your journal entries





The advice the audit manager gave to me remains to this day: "Remember your fundamentals; remember your journal entries."

While working in private industry, one of my responsibilities was to write narratives about my employer's financial statements. The purpose of the narratives was to describe reasons for changes in elements on the income statement and balance sheet. The narratives were used by outside auditors during their year-end engagements.

The narrative that to this day stands out for me was one written for outside auditors who were engaged with my employer for the first time. The audit manager read the narrative and raised a concern. The concern was that my narrative indicated a reason for a change in one account but the change was not seen in another account. The audit manager's concern led me to redo my analysis. On the surface, redoing the analysis looks inefficient, however, it was one of my better learning experiences.

The advice the audit manager gave to me remains to this day: "Remember your fundamentals; remember your journal entries."

Applying the advice

One of my engagements in private practice involved analysis of a company's inventory. The focus of the analysis was the company's raw materials, work-in-process and finished goods inventories. The focus was due to two reasons. First, the company used its inventories as collateral for a loan. Second, the company did not conduct comprehensive analyses of its inventories due to staffing.

The reasons for the focus established a framework for the engagement, which was to determine the reliability of the inventory balances reported to the company's lender. Determining the reliability of the balances was necessary for not only the lender but also the stockholders. The primary stockholder was a private equity firm that was looking to sell its interest at a later date. The role of the private equity firm added another layer of importance to the engagement. As a result, the engagement needed expertise to not only identify but also solve problems, and the advice I received years earlier came into play.

One of the issues I addressed was the accounting for scrap. Scrap occurred in the company's production process, which was provided to an individual who would record the transactions. The transactions were recorded in the company's accounting software and communicated online. What made this process challenging was the volume of transactions that were recorded to inventory. The challenge was the proverbial "finding a needle in the haystack."

The needle was to be found by remembering the journal entry for scrap: a debit to scrap and a credit to work-in-process inventory. This looks simple but what I found wasn't. I found that debits, not credits, to work-in-process inventory were recorded for scrap. How did that happen? It happened due to a flaw in the recording process in which the module used to record scrap was programmed to increase instead of decrease work-in-process inventory.

I brought this error to a colleague's attention and the colleague did not believe what I found. By incorporating the advice I received from the audit manager I was able to illustrate the error. The colleague reviewed my illustration and agreed with my finding. My finding led to an

adjustment of work-in-process inventory and a correction to the process of recording scrap. When I look back at this engagement, I realize how important the advice given to me years earlier helped me solve a significant problem.

Establishing a framework

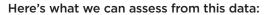
How can one establish a framework for financial analysis from this advice? I did so by using the cash conversion cycle (CCC). The CCC determines the amount of time taken to sell inventory, receive cash and pay cash. The amount of time taken for these three tasks is measured by three items: the average age of inventory (AAI), the average collection period (ACP), and the average payment period (APP). All three items incorporate the advice I received.

The average age of inventory focuses on the relationship between cost of goods sold and inventory. The average collection period focuses on the relationship between sales and accounts receivable. The average payment period focuses on the relationship between purchases and accounts payable. All three relationships represent journal entries recorded when companies purchase inventory, sell inventory and receive payment. This representation makes it easy for people to assess the ability of companies to effectively conduct relationships with customers and suppliers.

Using the CCC is important due to its use of time. Time is a metric used in our lives every day so it can be easily understood by people not familiar with statistics created by financial analysis, most notably turnover ratios. As finance professionals we must remember that the purpose of financial analysis is to learn about how companies accumulate wealth, so the learning must be made easy. I can think of no other way to simplify this process than to use an everyday measurement—time—to help people not only learn but also progress.

Figure 1: See how the CCC can be applied to the following

COMPANY	AAI	ACP	APP	ССС
Apple	12.44	23.73	76.75	-40.58
Dell	20.29	47.35	104.78	-37.14
HP	44.56	35.20	111.68	-31.92



- Apple sells its inventory faster than Dell and HP.
- 2. Apple receives cash faster than Dell and HP.
- Apple pays cash faster than Dell and HP.

The above listed assessments provide a story. The story is Apple's ability to stand out from its competition. This ability is demonstrated by Apple's connection with its customers through the amount of time it takes to sell products and collect cash. The ability also is demonstrated by Apple's connection with its suppliers through the amount of time to pay its bills. These connections serve as an explanation for Apple's success in the marketplace.

Apply the fundamentals

Financial analysis has become more developed over time. Its development has occurred due to advancements in technology and data science. These advancements can appear overwhelming to those pursuing a career in financial analysis but it does not have to be overwhelming. Preventing financial analysis from becoming overwhelming can be accomplished by applying fundamentals. Perhaps the most important fundamental is what I learned many years ago remember your journal entries.



Karl Kern is an accountant, lecturer and writer focused on economics and finance. Don't miss the FP&A Track at AFP 2019.



For accountants interested in switching to FP&A, many questions remain: What skills do they bring to their new role? Which new skills do they need to acquire? How can you make the switch?

Want to move from accounting to FP&A? Read this.

FP&A is growing more attractive to accountants. FP&A has fewer regulations to follow, making it less of a bureaucratic maze. FP&A is more conceptual, making it attractive to accountants who seek an intellectual challenge of forecasting and planning. So how can you switch from accounting to FP&A?

FP&A is growing more attractive to accounting personnel—with good reason. FP&A has fewer regulations to follow, making it less of a bureaucratic maze. That leads to the second reason, which is that FP&A is more conceptual, making it attractive to accountants who are seeking the intellectual challenge of forecasting and planning while reducing compliance burdens.

For accountants interested in switching to FP&A, many questions remain: What skills do they bring to their new role? Which new skills do they need to acquire? How can you make the switch?

"FP&A, a forward-looking discipline, can never be 100 percent accurate. Answers that are 'directionally correct' and meaningful are more important."

The transition is not always a seamless one. When Rachel Yau, CPA and head of finance, ASEAN, joined the FP&A team at Boston Scientific, she brought with her an understanding of accounting concepts such as revenue recognition criteria, knowledge of the ERP system, and her orientation toward detail. "I could go into the ERP system and find out the detailed posting in the cost centers or expense line driving any abnormality," she recalled.

Of course, that alone was not enough. After she switched to FP&A, Yau found that she needed to improve her financial modeling skills as well as increase her product, business and industry knowledge and develop better soft skills.

What are the differences between accounting and FP&A?

From capital reporting to capital allocation

Historical to forward-looking. Accounting provides an account of what happened and creates a clear record of resources available. FP&A asks where to allocate that money in order to create the most value for the company.

Change in audience: Investors to business partners. Accountants provide information to management, shareholders, creditors and regulators. FP&A serves management and the business leaders who want a blend of financial and operational metrics.

Financial reporting to management reporting. While both functions report, the format for accounting is standardized and must comply with set rules, such as GAAP or IFRS. Management reporting is not bound by these rules, and therefore FP&A can create reports that suit management and are tailored to different users throughout the organization.

From certainty to ambiguity

From exactly accurate to directionally right. Accounting requires a very high level of accuracy, especially for publicly traded companies. Meanwhile, according to Tom Russell, CFO of Fresh Products, "FP&A, a forward-looking discipline, can never be 100 percent accurate. Answers that are 'directionally correct' and meaningful are more important."

From the granular to the big picture.

Russell, who went from FP&A to accounting and back into FP&A, said that people who can focus on the big picture make the most successful transition from accounting to FP&A. "Additionally, a person must be nimble, able to switch priorities quickly and distill important data from noise," he said. "The least successful ones are those who can't draw conclusions and analysis from the data." Lastly, accountants may dismiss small variations that do not meet their materiality thresholds. However, FP&A may see small variability and identify it as a potential start of a trend or business change.

From internal function to building business partnerships. "FP&A needs to have the ability to sit across the table from a marketing or operations executive and align him or herself with their interests," said Jason Logman, principal of Digital Enterprise Analytics at The Hackett Group. "The challenge for FP&A is how to better lead and influence, how to talk about the business and better relate and connect with the business partners." Whether that effort is successful or not depends on the person's personality. Many accountants struggle at this point in the transition.

The "What" vs. the "Why." In FP&A, it's more about identifying opportunities than reporting what happened, Logman said. "You need to understand the business drivers and care less about the 50th decimal point." To be successful in FP&A, executives must have a certain level of intellectual curiosity to ask the questions about what's behind the numbers or the situation, added Larry Maisel, founder DecisionVu Group.

How to transition from accounting to FP&A

According to former CFO Michael Trzupek, when accounting professionals decide to switch to FP&A, the first step is to engage in formal continuing education programs. Right now, the only corporate FP&A-specific certification program is offered by AFP. "It gives accounting professionals a chance to delve into the FP&A world and learn the required skills in a very concise and organized manner," Trzupek said.

The second piece is acquiring skills through training—internal and external—and developing the necessary soft skills through leadership courses. According to Trzupek, the third piece is identifying mentors within the organization. "A mentor can talk through some of the difficulties early in the career," he said. Trzupek said he had several mentors throughout his career, and now he happily mentors others.

The Hackett Group's Logman said that going through the certification process is "a good start to get your critical core skills." The other piece is developing the softer skills that allow FP&A professionals to put themselves inside the business partner's framework. "You start with figuring out where you can add value," he said. To figure that out, Logman suggests getting into the business—visiting the store or the manufacturing plant.

David Buley, CFO of the Association of Independent Schools in Australia, believes in the process of continual learning. "I think it is imperative for your career to not only keep 'sharpening the saw,' but occasionally 'change out the blade' or even 'replace the saw with an improved model," he said. "What this means is continually scanning your industry and exposing Thinking about switching from accounting to FP&A? Here is a skill set checklist:

ACCOUNTING	FP&A
CAPITAL REPORTING	CAPITAL ALLOCATION
Historical	Future
Investors	Business
Financial reporting	Management reporting
CERTAINTY	AMBIGUITY
Precision	Directionally correct
Granular	The big picture
100% accurate	Comfortable with corrections
FINANCE FUNCTION	BUSINESS RELATIONSHIPS
Internal function	Partnership
Answers "What"	Asks "Why"
Finance cycles	Business cycles

yourself to new things, attending conferences you might not ordinarily go to and contributing to forums and blogs to test out your ideas."

Buley has attended two AFP Annual Conferences and found that he was exposed to new concepts and themes he could not have found in his home country. "Australia and the U.S. are at different stages of maturity with respect to concepts such as mobile payments, fintech, and even the ongoing use of checks" he said.

While accountants bring plenty of knowledge to FP&A, there are many skills they must acquire to make the switch successful. They need to learn to be comfortable with ambiguity and learn to turn their gaze forward, and to develop strong ties with business partners.

Nilly Essaides is Senior Research Director for Finance/EPM/Finops with the Hackett Group.



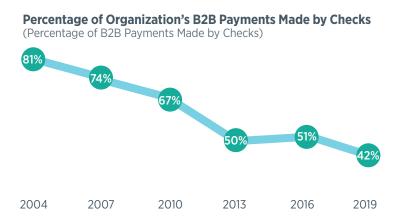
Learn more by downloading the FP&A Guide, Orchestrating the Mindshift: The Transition from Accounting to FP&A at www.AFPonline/publications



Check usage drops to a new low of 42 percent for business-to-business transactions

AFP RESEARCH

heck usage continues to decline for business-to-business (B2B) transactions, falling to an all-time low of 42 percent, according to the 2019 AFP Electronic Payments Survey, underwritten by J.P. Morgan. B2B check payments have now fallen by nearly 50 percent since 2004, when they were at 81 percent. Check usage has also shown a steady decline since 2013 and 2016, when approximately half of the average organizations' payments were made using checks.



But even though checks are slower to process than electronic payment methods and are more susceptible to fraud, they continue to dominate B2B transactions, signaling the challenge in changing internal processes. Other barriers organizations face in moving away from checks are increased costs of moving to alternative payment methods and lack of IT resources, as well as difficulty convincing business partners to shift toward sending/receiving electronic payments rather than checks. In addition, the relatively high level of integration of checks in corporate accounting systems, as opposed to electronic payment alternatives, contributes to their continued usage.

Still, electronic payment methods such as ACH are also being integrated into accounting systems. As ACH integration with accounting systems equals that of checks, organizations may be more encouraged to shift from paper to electronic payment methods. ACH payments have increased, particularly for paying major suppliers, and have become almost as popular as checks.

"Although new technology is appealing, treasury and finance professionals tend to stick with what works for them, and their vendors," said Jim Kaitz, President and Chief Executive Officer of AFP. "Check payments and wire transfers have been around for a long time for a reason. That said, it is encouraging that check usage is in decline, as electronic payments methods are much more efficient, and have a much lower risk for fraud."

"J.P. Morgan is once again pleased to sponsor the AFP Electronic Payments Survey," said Joe Hussey, North America Payables and Receivables Product Executive, J.P. Morgan Wholesale Payments. "By leveraging learnings from this study, organizations are better positioned to improve treasury efficiency, take advantage of new business opportunities and reap the benefits of payment innovations."

Faster payments optimism

The majority of survey respondents remain optimistic about the impact of faster payments on their organizations. Over a third (37 percent) are looking to stay current with new developments and potentially aim for an early adoption to reap early benefits, and 24 percent plan to be aware of new developments so they are better prepared.

However, many corporate practitioners still have a wait-and-see approach when it comes to faster payments. This is indicative of the somewhat cautious attitude financial professionals have toward changes that do not directly impact their organizations' core business. They also want to avoid investing in faster payments when they are unsure if these changes will be sustainable and may possibly require additional investments.

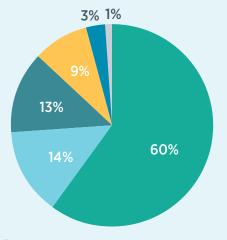
Strategy to Manage Upcoming Development and Innovation

(Percentage Distribution of Organizations)



Category of Payments that Will Benefit Most from Faster/Real-Time Payments

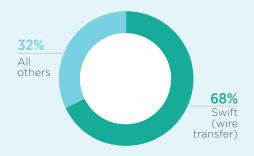
(Percentage Distribution of Organizations)



- Business-to-Business (B2B) transactions
- Consumer-to-Business (C2B) transactions
- Business-to-Consumers (B2C) transactions
- Person-to-Person (P2P) transactions
- Citizen-to-Government (C2G) transactions
- Government-to-Citizen (G2C) transactions

Percentage of Cross-Currency and International Payment Volume Sent by Payment Method

(Mean Distribution)



"Although new technology is appealing, treasury and finance professionals tend to stick with what works for them, and their vendors. Check payments and wire transfers have been around for a long time for a reason. That said, it is encouraging that check usage is in decline, as electronic payments methods are much more efficient, and have a much lower risk for fraud."

B2B transactions are seen as benefitting the most from faster/ real-time payments (cited by 60 percent of respondents). This is guite surprising given the shortage of use cases and complexity of these kind of transactions. Business-to-customer (B2C) and customer-to-business (C2B) transactions benefit as well, but to a much lesser extent—also surprising given the fairly large number of transactions involving a consumer.

The importance of extensive remittance information following the payment is important for faster/real-time payments. Fifty-four percent of practitioners hold this view, an increase from the last survey and a possible indication for strong demand from corporate end-users to adopt new payment methods.

Cross-border sees little change

The survey of 379 treasury and finance professionals also found that, despite an array of new developments, legacy wire transfers (SWIFT) still dominate the cross-border payments landscape. Fully 68 percent of organizations' cross border payments are done by wires, highlighting the challenge in making changes to payments processes even if current systems are inefficient and costly.

In comparison, newer technology solutions for cross-border payments are used to a very limited extent even though they promise faster, less expensive and more transparent transactions. The large share of crossborder transactions via Swift wires is likely because of Swift's extensive global reach through correspondent banking.

Indeed, speed is considered an important factor when selecting methods for cross-border payments. This is not surprising as speed traditionally has been a concern for corporate practitioners when paying overseas suppliers. Transaction cost and certainty of payment are also considered important.

Considering the many new providers in the cross-border landscape, it is a little surprising that few payments are made through the new channels, particularly those solutions enhancing legacy payments such as SWIFT gpi where few, if any, changes are required of corporate end-user systems. Further awareness about cross-border solutions built on technologies such as blockchains, digital currencies and APIs may be advantageous.

Impact of Emerging Technologies Entering the Payments Industry

(Percentage Distribution of Respondents)



New technologies

Despite the array of new developments in the payments industry, the greatest impact is believed to come from the use of APIs (cited by 72 percent of respondents) followed by Open Banking Payment Initiation (60 percent). With open banking expecting to have a big impact for payments initiation, it is a clear indication that practitioners see potential benefits in new ways of making payments. The use of APIs will likely become more evident going forward, and financial institutions could benefit from competitive advantages in providing open banking tools to accommodate their clients.

Additional findings

Other key findings in the *AFP 2019 Electronic Payments Survey*:

- A majority of respondents cite a lack of a standard format for remittance information as a barrier to e-payments adoption (70 percent).
- 42 percent of respondents reported that they were unfamiliar with the ISO 20022 payments standard, a surprising increase from 34 percent in the 2016 survey.
- Credit cards (48 percent) and non-converted checks (40 percent) are the most common methods used by businesses to receive payments from consumers.

Looking ahead

The steady decline in the use of checks for payments has resumed after leveling off in 2016. Check use decreased a full nine percentage points to 42 percent, a record low. However, despite the decline, organizations continue to make the majority of their B2B transactions via checks.

At the same time, electronic payments such as ACH have increased. Once set up, electronic payments can offer greater speed, less friction and in many cases, outweigh the benefits of using checks, thus making them more viable options in the modern society. As electronic payments and even newer technologies like faster/real-time payments continue to permeate the market, one would have to expect check usage to continue to decline, perhaps rapidly, for B2B transactions.

To read the highlights and full report, go to www.AFPonline.org/epayments.



Introducing the Newest Certified Treasury Professionals

AFP would like to recognize all of the newly designated CTPs & CTPAs from the 2019A (June - July 2019) testing window.

When working in treasury and finance, achieving the Certified Treasury Professional designation denotes credibility in your profession. These are professionals who have demonstrated the required knowledge, skills and abilities to meet this global standard of excellence.

The following financial professionals have successfully completed the rigorous examination requirements to earn their CTP or CTPA designation. They should be congratulated for their achievement and praised for reaching this level of finance professionalism.

CERTIFIED TREASURY PROFESSIONAL (CTP)

Zach Abbruzza, CTP Associate J.P. Morgan Seattle, WA UNITED STATES

Tawfik Abd El Hamid, CTP Senior Cash Management Specialist Al Ezz Dekheila Steel Company (EZDK) Giza EGYPT

Ahmed Abdel-Maksoud, CTP Treasury Senior Officer Schneider Electric New Cairo FGYPT

Augustina Adeniji-Somefun, CTP Calgary, AB CANADA

Ide Advokaat, CTP CFO Veldhoven NETHERLANDS

Michael Aiken, CTP Accountant Allan Myers Schwenksville, PA UNITED STATES

Taishi Akiyama, CTP Treasurer Arlington Heights, IL UNITED STATES Marietta Alay-ay, CTP

Finance Manager Kloeckner Metals Corporation Alpharetta, GA UNITED STATES

Noor Alom, CTP Project Manager PNC Bank Skokie, IL UNITED STATES

Abdulelah Al-Qahtani, CTP Financial Analyst Saudi Aramco For Petroleum Products Trading Company Dhahran SAUDI ARABIA Kashyap Anantharaman, CTP Assistant Manager Landmark Group Dubai UNITED ARAB EMIRATES

Benjamin Anderson, CTP Treasury Analyst Moore Capital Management Astoria, NY UNITED STATES

Valda Anthony, CTP Treasury Analyst Linde Newark, NJ UNITED STATES

Andrew Antoniadis, CTP Vice President CIBC Toronto, ON CANADA

Afraz Anwar, CTP Finance Associate Petroleum Mechanical Trading Company Doha QATAR

Priscilla Assumaning, CTP Credit Analyst Wells Fargo Bank Meridian, ID UNITED STATES

Eugene Ayapana, CTP

Treasury Analyst Fairfield Residential Company LLC San Diego, CA UNITED STATES

Majd Ayyoub, CTP Treasury Accountant DAR Amman JORDAN

Soha Azzam, CTP Islamic Audit and Treasury Manager Bank Audi Cairo EGYPT

Herbert Bachmann, CTP Manager Treasury Controlling Gategroup Bülach, ZH SWITZERLAND Amr Badr, CTP Treasury Manager - Group Treasury Unatrac/Mantrac Group Dubai UNITED ARAB EMIRATES

Zachary Bahr, CTP Treasury Sales Specialist Citizens Bank Lake Orion, MI UNITED STATES

Matthew Banek, CTP Product Developer Commerce Bank Kansas City, MO UNITED STATES

Deborah Banfield, CTP Treasury Manager EPIQ Alpharetta, GA UNITED STATES

Kobie Bardouille, CTP Vice President - Relationship Manager Associated Bank Minneapolis, MN UNITED STATES

Ben Barr, CTP Treasurer Aethon Energy Dallas, TX UNITED STATES

Alexander Basto, CTP Manager of Treasury Operations Ryan Specialty Group Chicago, IL UNITED STATES

Mari Becker, CTP Assistant Treasurer Pacific Gas and Electric Company San Francisco, CA UNITED STATES

Jarred Beckerman, CTP Vice President Cowen New York, NY UNITED STATES

Paul Bedard, CTP Calgary, AB CANADA Peter Bennorth, CTP ALM / Investment Manager Visions Federal Credit Union Endicott, NY UNITED STATES

Ridgeline Berdos, CTP Financial Accountant Graham Group Calgary, AB CANADA

Dmitri Beregovski, CTP Sr. Director Treasury and Investor Relations DCLI Charlotte, NC UNITED STATES

Valentina Beriozza, CTP Credit Suisse Group Zurich, ZH SWITZERLAND

Carmen Berry, CTP Clearance Settlement Specialist III Fannie Mae Washington, DC UNITED STATES

Jean Bertrand, CTP Cash Logistics Manager Lion Re:Sources Hollis, NY UNITED STATES

Atul Bhatia, CTP VP EFG Capital Chanhassen, MN UNITED STATES

Pete Bitter, CTP VP, Corporate Development and Finance Consolidated Container Company LP Marietta, GA UNITED STATES

Assistant Treasurer American International Group, Inc. The Woodlands, TX UNITED STATES Nicholas Brand, CTP

Treasury Analyst LKQ Corporation Darien, IL UNITED STATES

Ross Boudiab, CTP

Thomas Braun, CTP Director, Head of Liquidity Analysis Societe Generale S.A. Colts Neck, N.J UNITED STATES

Antoinette Brown, CTP Treasury Sales Officer SunTrust Atlanta, GA UNITED STATES

Grant Brown, CTP Treasurer Qorvo Portland, OR UNITED STATES

Kelly Brown, CTP Treasury Manager Bimbo Bakeries USA Fort Worth, TX UNITED STATES Xavier Brunelle, CTP Group Treasurer Zodiac Pool Systems LLC Carlsbad, CA UNITED STATES

Joe Buckingham, CTP Risk Manager Commerce Bank Kansas City, MO UNITED STATES

Ajdin Buljic, CTP Treasury Analyst II Jabil Inc. Saint Petersburg, FL UNITED STATES

Beverly Bull, CTP Business Deposit Specialist RBC Bank Whitecourt, AB CANADA

Andrew Burakiewicz, CTP Director of Treasury Management Citizens State Bank Carmel, IN UNITED STATES

Holly Burk, CTP Finance Shared Services Manager Dyno Nobel Inc. Salt Lake City, UT UNITED STATES

Devyn Butterfield, CTP Treasury FP&A Analyst First Electronic Bank Herriman, UT UNITED STATES

Yaritza Bynum, CTP Treasury Analyst Bank of America Merrill Lynch Dallas, TX UNITED STATES

Global Treasury Analyst TMS International Corp. Bethel Park, PA UNITED STATES

Kimberly Carbaugh, CTP

Jason Carini, CTP County Treasurer Rogers County Claremore, OK UNITED STATES

Roshini Carvalho, CTP Sr. Treasury Analyst Sysmex America, Inc. Mundelein, IL UNITED STATES

Brandon Center, CTP Vice President SunTrust The Colony, TX UNITED STATES

Elkie Hoi Ki Chan, CTP Marsh & McLennan Companies Inc. Hong Kong CHINA

Stephen Chi-Fai Chan, CTP Senior Manager AIA Group Limited Wan Chai HONG KONG Nicolas Chang, CTP Treasury Manager URW Temple City, CA UNITED STATES

Yvonne Chen, CTP Finance Golden State Bank Hacienda Heights, CA UNITED STATES

Alan Cheng, CTP Vice President Liquidity Risk Mizuho Americas Services LLC Flushing, NY UNITED STATES

William Chiusano, CTP Director, Commercial & Real Estate Morganville, NJ UNITED STATES

Jacklyn Claire, CTP Treasury Management Officer I Fifth Third Bank Nashville, TN UNITED STATES

Jessica Clarke, CTP Assistant Treasurer Union Bank & Trust Company Glen Allen, VA UNITED STATES

Ryan Claudon, CTP VP Treasury Sales Officer UMB Financial Corporation Birmingham, AL UNITED STATES

Alice Clements, CTP Treasurer Consumers Credit Union Buffalo Grove, IL UNITED STATES

Stephanie Cocherl, CTP Treasury Services Banker Cross First Bank Overland Park, KS UNITED STATES

Megan Coffman, CTP Account Manager PNC Bank Cleveland, OH UNITED STATES

Sergei Coleman, CTP Officer, Client Service State Street Corporation Kingston, ON CANADA

Rebecca Connor, CTP Global Product Manager PNC Bank Pittsburgh, PA UNITED STATES

James Conover, CTP Professor Emeritus Univ of North Texas Birmingham, AL UNITED STATES

Kevin Cook, CTP Sr. Financial Analyst -Treasury Operations BAXTER Deerfield, IL UNITED STATES

Matthew Cook, CTP Cash Manager Aethon Energy Dallas, TX UNITED STATES

Sara Corral, CTP Treasury Management Sales Analyst Wells Fargo Irvine, CA UNITED STATES

Jessica Cross, CTP Treasury Management Officer Republic Bank Riverview, FL UNITED STATES

Joel Dangerfield, CTP Business & Treasury Services Inside Sales First Citizens Bank Apex, NC UNITED STATES

John Dauphin, CTP Banker JPMorgan San Francisco, CA UNITED STATES

Bahaa Dawoud, CTP Treasury Manager Majid Al Futtaim Retail Dubai UNITED ARAB EMIRATES

Michael De La Fuente, CTP Senior Treasury Analyst Crowley Maritime Corporation Jacksonville, FL UNITED STATES

Daniel DeBalski, CTP HSBC Bank USA, N.A. Houston, TX UNITED STATES

Frederick Dechow, CTP Los Angeles, CA UNITED STATES

Scott Deem, CTP Risk Manager Fort Mill, SC UNITED STATES

Anthony Del Piano, CTP Director MLB Bethpage, NY UNITED STATES

Aniceta Delfin, CTP Treasury Associate Questrade inc Mississauga, ON CANADA

Claudio Delgado, CTP Global Treasury Manager Actualize Consulting Miami. FI UNITED STATES

Rico Delosreyes, CTP Houston, TX UNITED STATES

Joseph Demers, CTP Director, Treasury Allegion PLC Westfield, IN UNITED STATES

Patrick Devaney, CTP HSBC Bank USA, N.A. New York, NY UNITED STATES

Beverley Dias, CTP Sr. Treasury Operations Analyst Emblemhealth Inc New York, NY UNITED STATES

Christopher Dias, CTP Cash Management Advisor Enterprise Bank Dracut, MA UNITED STATES

Lee Dickinson, CTP Vice President JP Morgan Brooklyn, NY UNITED STATES

Anthony Doran, CTP Treasury Analyst Calumet Specialty Products Indianapolis, IN UNITED STATES

Tiffany Doughty, CTP Treasury Solutions Analyst Bank of America Merrill Lynch Denver, CO UNITED STATES

Damaari Drumright, CTP Oakland, CA UNITED STATES

Felipe Duarte Rodriguez, CTP Treasury Manager MSD San Jose COSTA RICA

Brenise Dudley, CTP Sr. Analyst Treasury A&E Television Networks New York, NY UNITED STATES

Craig Duff, CTP Consultant Toronto, ON CANADA

Ahmed El Dahshoury, CTP Finance Manager Dina Farms Giza **EGYPT**

Aya El Fawal, CTP Senior Treasury Consultant Lafarge Egypt Cairo **EGYPT**

Tarek El Gendy, CTP Head of Treasury- KSA Siemens S.A.E. Riyadh SAUDI ARABIA

Bassant El Hariry, CTP Team Leader Treasury & Banking Egyptian Fertilizers Company, Orascom Construction Cairo EGYPT

Mohamed El Masry, CTP Treasury Section Head Al Futtaim Real State Cairo EGYPT

Michael Ellis, CTP Amsterdam **NETHERLANDS**

Ahmed Elsayed, CTP Treasury & Corporate Finance Supervisor Sinotharwa Drilling Co. Cairo **EGYPT**

Moustafa Elsrougy, CTP Assistant Treasury Manager Bavarian Auto Group-BMW **EGYPT**

Mohamed Eltrabily, CTP Deputy Finance Manager DNM Textile Damietta **EGYPT**

Omolola Eneh, CTP Middle Market Loan & Agency -Account Manager JPMorgan Chase Chicago, IL UNITED STATES

Barbara Erdman, CTP TO Accountant Insight Securities Inc Mundelein, IL UNITED STATES

Olusola Fadahunsi, CTP Fixed Income Dealer First Bank Of Nigeria Plc Lagos NIĞERIA

Khaled Fahmy, CTP Treasury Analyst Union Group for Trading & Distribution Cairo EGYPT

Abraham Ford, CTP Vice President - Credit Risk Management Goldman Sachs Lehi, UT UNITED STATES

Aaron Fortson, CTP Manager - Accounts Payable City Utilities Of Springfield Springfield, MO UNITED STATES

Fabio Franci, CTP Marsh & McLennan Companies Inc. Milan ITALY

Joseph French, CTP Commercial Product Manager Commerce Bank Olathe, KS UNITED STATES

Ahmed Galal, CTP Treasury & Risk Management Supervisor Ghabbour Automotive Giza **EGYPT**

Andrew Gallo, CTP Senior Treasury Analyst Henry Schein Inc East Northport, NY UNITED STATES

Hany Gamal El-Din, CTP Financial Manager Ever Grow For Specialty Fertilizers Cairo **EGYPT**

Tara Ganaway, CTP Treasury Specialist Onesource Virtual Hurst, TX UNITED STATES

Javier Garcia, CTP Treasury Sales Officer PlainsCapital Bank Austin, TX UNITED STATES

Juan Paolo Garcia, CTP Manager ΕY Chicago, IL UNITED STATES

Alula Gebru, CTP Manager of Treasury Sears Canada Inc. Milton, ON CANADA

Lyubitsa Gerasimova, CTP Astoria, NY UNITED STATES

Armando Gochuico, CTP Manager Ernst & Young LLP Princeton Junction, NJ UNITED STATES

Harshita Goel, CTP Accounting Manager Chatham Financial Wilmington, DE UNITED STATES

Celso Goncalves, CTP Treasurer Cliffs Natural Resources Inc. Cleveland, OH **UNITED STATES**

Maxwell Goodall, CTP Treasury Management Analyst PNC Bank Nashville, TN **UNITED STATES**

Jason Gray, CTP Sr. Manager, Treasury Services Qorvo Greensboro, NC UNITED STATES

Samuel Gray, CTP Assistant Treasurer Western Alliance Bank Phoenix, AZ **UNITED STATES**

Britney Greeson, CTP Treasury Management Officer SunTrust Charlotte, NC **UNITED STATES**

Federico Gregori, CTP Treasury Business Partner The Goodyear Tire & Rubber Company LUXEMBOURG

Vladimir Guerrier, CTP Boston, MA UNITED STATES

2019A - JUNE-JULY 2019 CTPs & CTPAs

Gudjon Gustafsson, CTP European Treasurer Teva Pharmaceuticals Inc. Jona, SG SWITZERLAND

Mohammad Haque, CTP Treasury Manager Exeed Building Material Industries LLC Abu Dhabi UNITED ARAB EMIRATES

Russ Harju, FP&A, CTP Sr. Manager Lenexa, KS UNITED STATES

Jennifer Harker, CTP Treasury Manager Adam Opel AG Malvern, PA UNITED STATES

Tom Harmon, CTP President Commerce Bank Saint Louis, MO UNITED STATES

Sharon Harris, CTP Texas Crude Energy, LLC Missouri City, TX UNITED STATES

Fahad Hasan, CTP Manager Treasury Pfaff Automotive Partners Vaughan, ON CANADA

Eralda Hasani, CTP Treasury Services Product Manager BNY Mellon Holmdel, NJ LINITED STATES

David Hasegawa, CTP Treasury Manager City of Boise Boise, ID UNITED STATES

Hazem Hassan, CTP Assistant Corporate Treasury Director El Sewedy Cables Cairo EGYPT

Laurence Heads, CTP Assistant Treasurer AIG Long Branch, NJ UNITED STATES

Tami Henderson, CTP Cash Manager Vallejo, CA UNITED STATES

Kurt Henry, CTP Chief Operating Officer Sigma Analysis & Management Ltd. Toronto, ON CANADA

Robert Hibbard, CTP Manager Chatham Financial Kennett Square, PA UNITED STATES Timothy Hight, CTP Treasury Manager Virginia Tech Foundation Inc. Blacksburg, VA UNITED STATES

Lawrence Hirsh, CTP Partner Melner Hirsh Associates Washington, DC UNITED STATES

James Hoban, CTP Sr Treasury Analyst A.T. Kearney, Inc. Chicago, IL UNITED STATES

Nicole Hoffman, CTP Treasury Services Sales Officer Commerce Bank Bloomington, IL UNITED STATES

Landon Holbrook, CTP Senior Manager-Treasury Georgia-Pacific LLC Atlanta, GA UNITED STATES

Lani Holloway, CTP Treasury Officer Wells Fargo Bank, N.A. Atlanta, GA UNITED STATES

Beau Hooper, CTP Treasury Analyst Sr The Mosaic Company Riverview, FL UNITED STATES

Ali Hossam, CTP Treasury Team Manager EY Giza EGYPT

Ben Howells, CTP ATB Financial Calgary, AB CANADA

Kramer Hudgens, CTP Accounting Supervisor Noodles & Company Broomfield, CO UNITED STATES

Esther Hunt, CTP Treasury Accountant CDM Smith Inc Worcester, MA UNITED STATES

Brian Hutchin, CTP EVP/Director of Treasury and Commercial Card Sales UMB Financial Corporation Kansas City, MO UNITED STATES

Melissa Hylton, CTP Treasury & Finance, CTP Tanger Outlets Greensboro, NC UNITED STATES

Mina Ibrahim, CTP Prospect Manager US Bank Downey, CA UNITED STATES Daniel Ionescu, CTP Sr. Treasury Analyst -Risk Management American Axle Manufacturing Livonia, MI UNITED STATES

Hesham Ismail, CTP Senior Treasury Specialist TAQA For Marketing Oil Products Cairo FGYPT

Jordan Jackson, CTP Treasurer Burris Logistics Milford, DE UNITED STATES

David Jacoboski, CTP Arysta LifeScience Inc. Glastonbury, CT UNITED STATES

Sarah Jacobus, CTP Cash Operations Manager DC Government Washington, DC UNITED STATES

Denawakage Jayasinghe, CTP Head of Treasury Commercial Bank of Maldives Male MALDIVES

Dominika Jenckova, CTP Analyst CIT Group Inc. Wharton, NJ UNITED STATES

Jennifer Jeremiah, CTP Treasury Team Lead Allegis Group, Inc. Baltimore, MD UNITED STATES

Brittany Jervis, CTP Director Hedge Accounting Chatham Financial Kennett Square, PA UNITED STATES

Andre Johnson, CTP Exec Director JP Morgan Chase Sacramento, CA UNITED STATES

Brianne Jones, CTP Treasury Analyst Teays River Investments Carmel, IN UNITED STATES

Suzan Jones, CTP VP Treasury Sales Advisor KeyBank Columbus, OH UNITED STATES

Sam Josey, CTP Treasury Analyst Southwire Company Atlanta, GA UNITED STATES

Wai Tong Kam, CTP Manager BNU Macau MACAO Bora Kang, CTP Treasury Manager GN Hearing SINGAPORE

Boris Kaplevich, CTP Assistant Director AIG Brooklyn, NY UNITED STATES

Nour Kaskas, CTP Deputy Senior Section Head in Treasury Department CSCBank SAL Beirut LEBANON

Addie Keeter, CTP Solution Advisor PNC Bank Raleigh, NC UNITED STATES

Rebecca Kellow, CTP Bellingham, WA UNITED STATES

Jason Kennedy, CTP Treasury Manager Kraton Polymers U.S. LLC Saint Johns, FL UNITED STATES

Jerald Kerlin,FP&A, CTP Senior Specialist FP&A Marsh & McLennan Companies Inc. Seattle, WA UNITED STATES

Kristin Kern, CTP TSA Bank of America Nashville, TN UNITED STATES

Carissa Kiepert, CTP Relationship Manager US Bank Oak Creek, WI UNITED STATES

Shannon King, CTP Treasurer Fifth Third Asset Management Ft Mitchell, KY UNITED STATES

Hilda Kipelio, CTP Treasury & Finance Analyst East Kentucky Power Cooperative Inc. Winchester, KY UNITED STATES

Jason Kirwan, CTP Manager Chatham Financial Kennett Square, PA UNITED STATES

Anne Kodack, CTP Treasury Manager Horizon Blue Cross Blue Shield Newark, NJ UNITED STATES

Gil Kol, CTP Director AIA Group Limited HONG KONG Todd Koleszar, CTP Director of Treasury Elara Caring Dallas, TX UNITED STATES

Steven Kostas, CTP Treasury Sales Analyst Bank of America Merrill Lynch Toronto, ON CANADA

David Koundakjian, CTP Financial Services Professional Belmont, MA UNITED STATES

Ken Kousaka, CTP Senior Analyst, Markets Finance Lloyds Bank Corporate Markets Hoboken, NJ UNITED STATES

Gregory Kozerski, CTP Cash Analyst Rich Products Corporation Buffalo, NY UNITED STATES

Tejas Kumar, CTP Senior Associate Citigroup Inc. Jersey City, NJ UNITED STATES

Heena Ladhani, CTP Glenview, IL UNITED STATES

Wendy Lai, CTP Global Controller HPS Partners New York, NY UNITED STATES

Juliette Lam, CTP New York, NY UNITED STATES

Elisabeth Lang, CTP Asst. Treasurer, Sr. Director NPR Washington, DC UNITED STATES

Colleen Langan, CTP Treasury Management Sales Analyst Wells Fargo Bank Roseville, CA UNITED STATES

Chelsea Laughey, CTP Senior Accountant Bambora Victoria, BC CANADA

Daniela Leal, CTP Mcallen, TX UNITED STATES

Melissa Lee, CTP Managing Principal Lee Squared Consulting Group, LLC Washington, DC UNITED STATES

Brian Lee, CTP Senior Manager, Treasury Altisource Atlanta, GA UNITED STATES Lai Ping Lee, CTP Manager Treasury City Developments Ltd SINGAPORE

Kah Khim Gevin Lee, CTP Director, Group Treasury Surbana Jurong Pte Ltd SINGAPORE

Jia Yuan Lionel Lee, CTP Vice President HNA Group (International) Company Limited HONG KONG

Andrea Lenke, CTP Treasury Manager The Andersons, Inc. Bowling Green, OH UNITED STATES

Wen-Hsin Lin, CTP Pricing Analyst Carrollton, TX UNITED STATES

Yvette Lindesay, CTP Treasury Manager East West Manufacturing LLC Austell, GA UNITED STATES

Connor Lisco, CTP Associate JP Morgan Chase Washington, DC UNITED STATES

Josh Little, CTP Treasury Manager US Xpress Chattanooga, TN UNITED STATES

Yun Liu, CTP Consultant Deloitte & Touche SINGAPORE

Frank Long, CTP Treasury Analyst Vantiv Miamisburg, OH UNITED STATES

Peter Loosbrock, CTP Senior Treasury Analyst Blue Cross Blue Shield of Minnesota Eagan, MN UNITED STATES

Emily Lu, CTP Manager, Treasury Adobe San Jose, CA UNITED STATES

Yascarli Luengo, CTP Treasury Systems Analyst Brightstar Corporation Doral, FL UNITED STATES

Shilpa Luniya, CTP SFA Alghanim KUWAIT

Derek Lutz, CTP VP Treasury Management Officer IBC Bank Oklahoma City, OK UNITED STATES Josline Ma, CTP Treasury Manager Zendesk Hayward, CA UNITED STATES

Anthony MacBride, CTP Treasury Analyst The Scoular Company Omaha, NE UNITED STATES

James Mack, CTP Investment Officer II Louisiana Department of the Treasury Baton Rouge, LA UNITED STATES

Tarek Mahmoud, CTP Group Treasury Manager Alfardan Group Doha QATAR

John Mahoney, CTP Treasury Sales Consultant Citibank West Babylon, NY UNITED STATES

Jeanette Makowski, CTP Glendale, NY UNITED STATES

Morton Mandel, CTP VP Director of Finance Bray International, Inc. Houston, TX UNITED STATES

Nicholas Manuel, CTP Senior Analyst, Corporate Finance Pacific Gas and Electric Company San Francisco, CA UNITED STATES

Chad Marks, CTP Treasury Analyst Maryville, TN UNITED STATES

David Martin, CTP Manager Ernst & Young Scituate, MA UNITED STATES

Elizabeth Martin, CTP Treasury Manager Farmers Insurance Group Woodland Hills, CA UNITED STATES

Benjamin Martin, CTP Product Development Associate Citigroup Inc Miami, FL UNITED STATES

Evelyn Martinez, CTP Treasury Analyst LSC Communications Brookfield, IL UNITED STATES

Yohan Maury, CTP Reims FRANCE

Robert McArthur, CTP Sr Treasury Analyst Harland Clarke San Antonio, TX UNITED STATES Ron McCauley, CTP Treasury Manager Sheridan Production Company, Llc Shenandoah, TX UNITED STATES

Jermal McDaniel, CTP Director, Treasury LoanDepot.com, LLC Eastvale, CA UNITED STATES

Michael McGovern, CTP Risk Manager Advantage Futures Chicago, IL UNITED STATES

Christopher McGuire, CTP EY New Rochelle, NY UNITED STATES

Kristin McLean, CTP Treasury Management Officer Bank of America Merrill Lynch Milwaukee, WI UNITED STATES

Lacey McLean, CTP Treasury Senior Manager Expedia Seattle, WA UNITED STATES

Oliver Mendoza, CTP Commercial Banker J.P. Morgan Irvine, CA UNITED STATES

Joshua Midgley, CTP Treasury Analyst The Wendy's Company Columbus, OH UNITED STATES

Carly Miller, CTP Corporate Controller Anchor Danly Inc. Essex, ON CANADA

Cynthia Minor-Jones, CTP Customer Support Specialist Cook Myosite Inc. New Kensington, PA UNITED STATES

Florena Mitrojorgji, CTP Treasury Manager UPS Atlanta, GA UNITED STATES

Omar Mohamed, CTP Treasury Accountant Ernest and Young Cairo EGYPT

Ashraf Monem, CTP Treasury Dealer Al Rayan Bank Birmingham UNITED KINGDOM

Ryan Monroe, CTP Manager of Treasury OmniTRAX Denver, CO UNITED STATES Brian Moreland, CTP Treasury Manager, Supplier Finance Caterpillar Inc. Dunlap, IL UNITED STATES

Kyle Moriarty, CTP Sr. Treasury Analyst Calumet Indianapolis, IN UNITED STATES

Richard Morris, CTP Accounting Technician II State of TN Treasury Department Clarksville, TN UNITED STATES

Natalie Morrison, FP&A, CTP Financial Planning and Analysis Manager Water One Lenexa, KS UNITED STATES

Eman Mostafa, CTP AGM Cash Management Global Transaction Banking Banque MISR Cairo EGYPT

Marwah Moursy, CTP Assistant Treasury Manager Credit Agricole Egypt Cairo EGYPT

John Murphy, CTP Senior Treasury Analyst Ferrovial Services NA Austin, TX UNITED STATES

Kareem Ahmed Nabil Elebrashi, CTP Treasury Lead International Company For Agro-Industrial Projects Sae Cairo EGYPT

SM Nahar, CTP Sr Treasury Analyst Gannett Co., Inc. Ashburn, VA UNITED STATES

Amine Najjahallah, CTP Treasury Solution Architect SAP Frisco, TX UNITED STATES

Arun Narayanasamy, CTP Assistant Professor of Finance Brenau University Gainesville, GA UNITED STATES

Peter Nebres, CTP Senior Consultant Ernst and Young Chicago, IL UNITED STATES

Sasha Nelson, CTP Relationship Manager Wells Fargo Chicago, IL UNITED STATES Aki Nemoto, CTP Alexandria, VA UNITED STATES

Emily Ng, CTP AVP, Treasury Account Manager Bank of America Toronto, ON CANADA

King Shun Ng, CTP Treasury Manager Ma On Shan HONG KONG

Thi Tam Nguyen, CTP Business Systems Analyst Rio Tinto SINGAPORE

Timothy Nicholson, CTP Manager, Treasury Hilton Worldwide Inc. Memphis, TN UNITED STATES

Michael Niro, CTP Director Finance Bimbo Bakeries Mayfield Hts, OH UNITED STATES

Eric Nowinowski, CTP Treasury Analyst, Capital Markets Hasbro Cumberland, RI UNITED STATES

Gioacchino Nunno, CTP Market Vice-President, Cash Management, Global Transaction Banking CIBC Toronto, ON CANADA

Temidayo Oluwafemi, CTP Cash Management Sales Specialist Ecobank Nigeria Plc Calgary, AB CANADA

Yoshihito Oyama, CTP Treasury Assistant Manufacturers Bank Pomona, CA UNITED STATES

Dave Palmer, CTP Marsh & McLennan Companies Inc. London UNITED KINGDOM

Jeremy Parker, CTP Hingham, MA UNITED STATES

Kathleen Parrish, CTP Treasury Sales Officer Atlantic Union Bank Mechanicsville, VA UNITED STATES

Kinnari Patel, CTP Richmond, VA UNITED STATES

Harshal Patel, CTP Vice Presient HSBC Bank USA, N.A. San Francisco, CA UNITED STATES

2019A - JUNE-JULY 2019 CTPs & CTPAs

Ojas Patel, CTP Director Portfolio Management FS Investments Allentown, PA UNITED STATES

Haley Peck, CTP Treasury Sales Analyst SunTrust Charlotte, NC UNITED STATES

Joseph Peedikayil, CTP Model Validation Executive for Liquidity, Credit and Capital Wells Fargo Chicago, IL UNITED STATES

Daniel Peterson, CTP Renton, WA UNITED STATES

Kyle Phelps, CTP Senior Vice President Capital City Bank Tallahassee, FL UNITED STATES

Selina Piccoli, CTP Cash Accountant Bosa Properties Inc Burnaby, BC CANADA

Katherine Pick, CTP Senior Associate LiquidX New Orleans, LA UNITED STATES

Yu Qing Png, CTP Senior Executive of Group Finance – Treasury (FTC) Sojitz Asia Pte Ltd SINGAPORE

Kerry Pollard, CTP Treasury Analyst Air Liquide Houston, TX UNITED STATES

Joseph Princi, CTP Jeanne D'Arc Credit Union Lowell, MA UNITED STATES

Bryce Pritchard, CTP Treasury Analyst Welbilt Inc Clearwater, FL UNITED STATES

Prashant Radhakrishnan, CTP Transaction Banking Bangalore, Karnataka

Jovana Radomir, CTP Funding Origination Eurobank Athens GREECE

Rahul Raina, CTP Fremont, CA UNITED STATES

Raja Ramachandran, FP&A, CTP Global Business Development Manager Alliance One International Cary, NC UNITED STATES Mohamed Rashed, CTP Senior Cash Management Specialist Al Ezz Dekheila Steel Company (EZDK) Giza EGYPT

Tina Rego, CTP Assistant Treasury Manager Enstar Group Limited Flatts BERMUDA

Kevin Rice, CTP Senior Treasury Analyst CIRCOR International, Inc. Melrose, MA UNITED STATES

My Ritchie, CTP Product Manager Zions Bancorporation Houston, TX UNITED STATES

Daniel Robertson, CTP Treasury Operations Manager Hylant Group Inc. Toledo, OH UNITED STATES

Seagan Robinson, CTP Treasury Manager ATSG Miamisburg, OH UNITED STATES

Douglas Rochman, CTP Treasury Management Consultant Capital One New York, NY UNITED STATES

Kevin Rock, CTP CFO / VP / Treasurer Regency Properties Newburgh, IN UNITED STATES

Chelsea Roe, CTP Treasury Analyst Michigan State University Portland, MI UNITED STATES

Kimberly Rokyta, CTP Washington University in St. Louis Saint Louis, MO UNITED STATES

Thomas Rondot, CTP CFO Danone North America New York, NY UNITED STATES

James Rose, CTP Treasury Analyst NetJets Millersport, OH UNITED STATES

Mark Rowlands, CTP SVP - Finance Lloyds Banking Group Highlands, NJ UNITED STATES Dylan Safyer, CTP Account Manager, Transaction Banking Standard Chartered Bank New York, NY UNITED STATES

Daniel Salas, CTP Treasury Solutions Analyst Bank of America Merrill Lynch Dallas, TX UNITED STATES

Areig Saleh, CTP Treasury Analyst Motivate Brooklyn, NY UNITED STATES

Fady Saleh, CTP Treasury Accountant TEData Cairo EGYPT

Kristine Sanders, CTP SVP, Treasury Management Watermark Bank Oklahoma City, OK UNITED STATES

Dennis Saneski, CTP Manager The Carlyle Group Arlington, VA UNITED STATES

Colin Sawyer, CTP International Advisor PNC Bank Pittsburgh, PA UNITED STATES

Saket Saxena, CTP Treasury Operations Analyst -Foreign Exchange GE Healthcare Brookfield, WI UNITED STATES

Gregory Scalera, CTP Sr. Financial Analyst, Treasury Operations Pfizer Inc. New York, NY UNITED STATES

Frederick Schacknies, CTP SVP & Treasurer Hilton Worldwide, Inc. McLean, VA UNITED STATES

Joseph Sciaraffo, CTP Senior Treasury Analyst Church & Dwight Robbinsville, NJ UNITED STATES

Badea Shaker, CTP Treasury Supervisor Energya Cairo EGYPT

Mohammed Sherif, CTP Global liquidity and Cash Management Manager HSBC Egypt S.A.E Cairo EGYPT David Shockley, CTP Consultant Robert Half Management Resources Nashville, TN UNITED STATES

Gaurav Shringarpure, CTP Vice President SunTrust Johns Creek, GA UNITED STATES

Kiryl Shubianok, CTP Implementation Manager Standard Chartered Bank Jackson Heights, NY UNITED STATES

Bassem Shurrab, CTP Senior Financial Analyst -Corporate Treasury Alghanim Industries Kuwait KUWAIT

Duma Siahaan, CTP Belden Inc. Venlo NETHERLANDS

Antonio Signorelli, CTP Treasury Associate J.P. Morgan San Francisco, CA UNITED STATES

Karan Sihota, CTP Analyst Spring, TX UNITED STATES

Jorge Sikaffy, CTP Manager Ernst & Young New York, NY UNITED STATES

Alec Sim, CTP Treasury Management Sales Consultant Wells Fargo San Francisco, CA UNITED STATES

Laura Simmons, CTP Executive Director JPMC Dallas, TX UNITED STATES

Erra Sinadjan, CTP Treasury Accountant Action International Services LLC Dubai UNITED ARAB EMIRATES

Balween Singh, CTP Treasury Analyst Prometheus Real Estate Group San Jose, CA UNITED STATES

Hang Sheng Siow, CTP SVP Mizuho Bank SINGAPORE

Jerome Smith, CTP Manager BotScale LLC Elgin, IL UNITED STATES Asem Sobeh, CTP Financial Manger Afro-Egypt Enginerring Company Qualiob EGYPT

Charisse Sobers, CTP Senior Analyst, Treasury Park Hotels & Resorts, Inc. Arlington, VA UNITED STATES

Anna Sologub, CTP Manager, Advisory KPMG International Kiev UKRAINE

Adekemi Songonuga, CTP Head Treasury OVH Energy Lagos NIGERIA

Jessica Souders, CTP Treasury Manager Hillenbrand, Inc. Lawrenceburg, IN UNITED STATES

Ryan Spotts, CTP Treasury Manager Spartan Motors East Lansing, MI UNITED STATES

Heather St James, CTP Investment Management Corporation of Ontario Richmond Hill, ON CANADA

Tabitha Stambaugh, CTP Commercial Banking Officer Synovus Bank Lake Worth, FL UNITED STATES

Timothy Steinberg, CTP Senior Treasury Analyst EY Woodbridge, CT UNITED STATES

Michael Stretti, CTP VP Sales PNC Bank Grayslake, IL UNITED STATES

Garrett Strong, CTP Treasury Analyst Corning Incorporated Corning, NY UNITED STATES

Whitney Stroud, CTP Analyst Knoxville, TN UNITED STATES

John-Paul Stuart, CTP Manager Republic Bank (Barbados) Ltd St. James BARBADOS

Suvarna Sule, CTP Sr. Treasury Specialist EOG Resources Inc Sugar Land, TX UNITED STATES Sumanth Sunkari, CTP Treasury and Trade Solutions -SSA Sales Citi Johannesburg SOUTH AFRICA

Rajkiran Suvarna, CTP VP- Corporate Banking ICICI Bank Limited Dubai UNITED ARAB EMIRATES

Zarine Swamy, CTP Head Treasury SOTC Travel Ltd Mumbai INDIA

Daniel Swan, CTP Sr. Treasury Analyst Bedford, MA UNITED STATES

Paul Szulewski, CTP Financial Analyst II AmerisourceBergen Corporation Lansdale, PA UNITED STATES

Jag Tamber, CTP Portfolio Manager, Corporate & Project Finance Province of British Columbia Victoria, BC CANADA

Melanie Tan, CTP Senior Vice President Mizuho Bank SINGAPORE

Wei Ming Kenji Tan, CTP Assistant Treasury Manager SINGAPORE

Cher Min Tan, CTP Treasury Analyst Salesforce Inc SINGAPORE

Hon Tang, CTP Controller Safety Codes Council Edmonton, AB CANADA

Meher Tawakley, CTP Treasury Solutions Analyst Bank of America Merill Lynch Brampton, ON CANADA

Rafe Teer, CTP Treasury Analyst Bain & Company, Inc. Boston, MA UNITED STATES

Jonathan Tewksbury, CTP Officer Trainee Alpine Bank Boulder, CO UNITED STATES

Vishal Thacker, CTP Chief Investment Officer Alameda, County Of Oakland, CA UNITED STATES Chiver Tham, CTP Senior Treasury Associate Zoetis Inc SINGAPORE

Kyaw Thiha, CTP Audit Lead East West Bank Pasadena, CA UNITED STATES

Jiao Tian, CTP Sr. Financial Analyst Emerson College Boston, MA UNITED STATES

Yu Tian, CTP Analyst Wildwood, MO UNITED STATES

Indahwati Tjondrokusumo, CTP Manager of Treasury Operations White Oak Global Advisors, LLC Pacifica, CA UNITED STATES

Diana Tobias, CTP Treasury Manager Flower Mound, TX UNITED STATES

Jennifer Tomaino, CTP VP - Head of Treasury Services Union Savings Bank Danbury, CT UNITED STATES

Santiago Tommasi, CTP Sr Credit Manager The Mosaic Company Plymouth, MN UNITED STATES

Brenda Torres, CTP Global Treasury Consultant Citi Miami, FL UNITED STATES

Marco Trejo Soule, CTP Corporate Treasury Analyst 2 Finning International, Inc. New Westminster, BC CANADA

Carrie Tse, CTP Marsh & McLennan Companies Inc. Hong Kong CHINA

Douglas Tsetsetse, CTP Treasury Manager Afreximbank Cairo FGYPT

David Turcotte, CTP Director TD Bank Saint-Jean-sur-Richelieu, QC CANADA

Angela Turri, CTP Manager of Investment Reporting & Payments PSERS - PA Public School Employees' Retirement System Elizabethtown, PA UNITED STATES Pritesh Vallabh, CTP Group Treasury Manager Ascendis Health (PTY) LTD Johannesburg, SOUTH AFRICA

Laketa Vanoy, CTP Assistant Treasurer Evergreen Park, IL UNITED STATES

John Vergel de Dios, CTP Glen Rock, NJ UNITED STATES

Siddharth Viswanath, CTP Management Associate JPMorgan Chase & Co. New York, NY UNITED STATES

Dana Vittum, CTP Director Tax and Treasury Radius Health, Inc. Acton, MA UNITED STATES

Anthony Vizcarra, CTP Senior Treasury Analyst Edelman Chicago, IL UNITED STATES

Aleksandrs Voskobojevs, CTP Head of Treasury Rietumu Bank JSC Jurmala LATVIA

Andrea Voulgaropoulos, CTP Director CIT Group Inc. Pasadena, CA UNITED STATES

Lindsey Walker, CTP Client Integrations Manager SunTrust Nashville, TN UNITED STATES

Ka Leong Wan, CTP Treasury Executive Techtronic Industries HONG KONG

Gregg Weadock, CTP Controller American Trim Lima, OH UNITED STATES

Christen Webb, CTP BOK Financial Corporation Tulsa, OK UNITED STATES

Keith Werner, CTP Chief Treasury Officer African Development Bank Group Abidjan CÔTE D'IVOIRE

Caitlin Wilczynski, CTP Treasury Analyst Lionbridge Technologies Inc Millbury, MA UNITED STATES

Decelia Willacy, CTP Treasury Assistant Howard Hughes Medical Institute Inc Silver Spring, MD UNITED STATES Thalita Williams, CTP Sr. Treasury Analyst FMC Corporation Philadelphia, PA UNITED STATES

John Willim, CTP Principal GuideWell Mutual Holding Corporation Jacksonville, FL UNITED STATES

Elizabeth Wiss, CTP Customer Support Officer National Bank of Commerce Birmingham, AL UNITED STATES

Jeffrey Woo, CTP Treasury Analyst Truliant Federal Credit Union Winston-Salem, NC UNITED STATES

Jason Wooldridge, CTP Vice President, Treasury & Payment Solutions SunTrust Nashville, TN UNITED STATES

Kale Wright, CTP Controller Client Resources, Inc. Lincoln, NE UNITED STATES

Sherrie Wu, CTP Treasury Management Officer Associate J.P. Morgan Chase South El Monte, CA UNITED STATES

Linda Xu, CTP Treasury Analyst Salesforce.com, Inc. San Francisco, CA UNITED STATES

Christopher Yager, CTP Director & Controller North Bellmore, NY UNITED STATES

Kyle Yamamura, CTP Director, Corporate Treasury Primaris Management Inc. Toronto, ON CANADA

Joyce Yamsuan, CTP Manager, Treasury Operations EPCOR Edmonton, AB CANADA

Elnaz Younesian, CTP Cash Management Analyst Porsche Cars North America Atlanta, GA UNITED STATES

Sara Youssef, CTP S. Treasury Middle Office Abu Dhabi Islamic Bank Cairo EGYPT

Weizhao Yuan, CTP Falls Church, VA UNITED STATES Medhat Zeidan, CTP GTB Deputy Banque Du Caire Nasr City EGYPT

MINGLAN ZHENG, CTP Junior Treasury Controller BO & ICR Fedex Express Amsterdam NETHERLANDS

Xiaoyin Zhong, CTP Senior Settlement Officer Team Lead KVB Financial Group Torrance, CA UNITED STATES

Bingling Zhou, CTP Senior Financial Analyst Glenview, IL UNITED STATES

CERTIFIED TREASURY PROFESSIONAL ASSOCIATES (CTPAs)

Madison Perrine, CTPA Student Northern Illinois University Marengo, IL UNITED STATES

Aracelly Maria Jimenez Rios, CTPA Student Arkansas State University Merida MEXICO

Lauren A. Wilfong, CTPA Student Baylor University Lorena, TX UNITED STATES

THE BOOK END



What's Next

ANDREW DEICHLER

y first AFP conference was nine years ago in San Antonio. I had been with AFP for about a month, and the only thing I had really worked on at that point was the AFP Conference Daily News. Back then, this was a physical newsletter that we printed out for conference attendees. Now, being a writer by trade, it's always been incredibly important to me that people are reading the content that I produce. So you can imagine how disheartening it was to walk into the convention center and see stacks of this newsletter all over the place and no one even noticing them, let alone reading them.

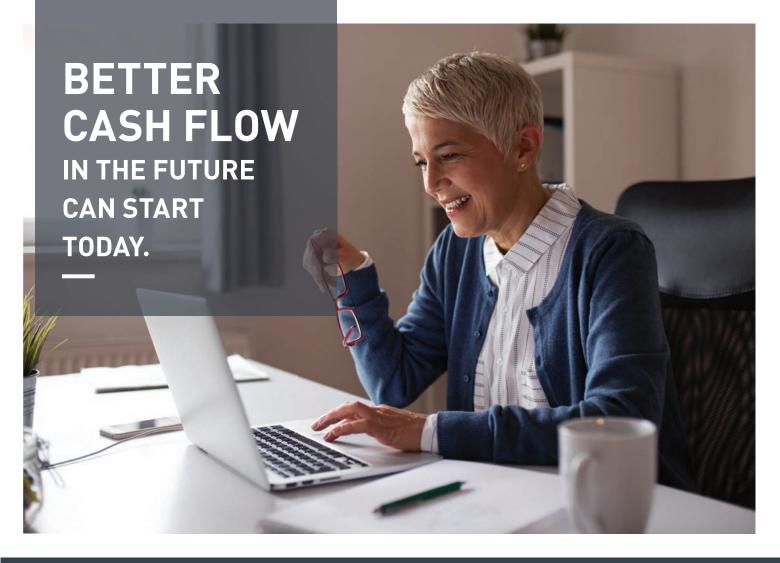
Oh, how times have changed. Since that time, we've done away with printing out paper copies of the conference newsletter and instead send it out via email. Not only is it more environmentally friendly; we recognized that people are much more likely to read our articles on their phones or laptops than via physical copies. And it's not just because as a society, we're staring at our phones 90 percent of the time.

No, in this case specifically, we also recognized that when you're at an event like the AFP Annual

Conference, you've got a lot on your mind. You're attending sessions, you're networking with your peers, and you're meeting with exhibitors. The last thing you need is one more thing to carry around with you. It's much more convenient to just read about that day's events by pulling out your phone.

Moreover, moving to digital allowed us to include new types of content, like podcasts and videos. As a writer, I'll always favor the written word, but I know that articles aren't always the best way to present content. Sometimes hearing an expert explain a complex topic or seeing some expert visuals can really hammer the point home.

So while moving from a physical newsletter to a digital one might not seem like a big shift, it's indicative of the way we all have to keep adjusting to where technology is going and how people's attitudes and tendencies are changing. So when you attend AFP 2019 this year and you read through the Conference Daily News (and I really hope you do) just remember that at AFP we're always looking ahead to what's just around the corner. And so should you.



CORPORATE & COMMERCIAL BANKING | At PNC, we know that cash flow is the lifeblood of your business. That's why we offer treasury management solutions and a professional relationship team that can help you stay one step ahead of today's constantly changing marketplace. When our teams work together seamlessly, we can help you to accelerate receivables, optimize payables, enhance liquidity and maximize performance — online and on the go with our mobile apps. Because when you prepare for tomorrow today, you can accelerate your business's growth.

For more information, visit pnc.com/ideas.

DOMESTIC & INTERNATIONAL TREASURY MANAGEMENT SERVICES | CARD SOLUTIONS | LIQUIDITY MANAGEMENT | ONLINE AND MOBILE ACCESS

PNC and PNC Bank are registered marks of The PNC Financial Services Group, Inc. ("PNC"). Banking and lending products and services, bank deposit products, and treasury management products and services are provided by PNC Bank, National Association ("PNC Bank"), a wholly owned subsidiary of PNC and **Member FDIC**. Certain banking and lending products and services require credit approval.

Investments: Not FDIC Insured. May Lose Value. No Bank Guarantee.

©2019 The PNC Financial Services Group, Inc. All rights reserved.



Value or Values

What if you didn't have to choose?



Turn over a new LEAF™

The BlackRock Liquid Environmentally Aware Fund ("LEAF" or the "Fund"), the first vehicle of its kind to provide investors an opportunity to seek to achieve the stability, liquidity and yield potential of a 2a-7 money market fund through investment in securities issued or guaranteed by entities that meet the Fund's environmental criteria.

Direct LEDXX

Institutional LEFXX

Investor A LEAXX

An investor should consider the investment objectives, risks and expenses of the Fund carefully before investing. The Fund's prospectus and, if available summary prospectus, contain this and other information about the Fund and are available by calling our Client Service Center at 800-441-7450. Please read the prospectus carefully before investing.

Risk is inherent in all investing. You could lose money by investing in LEAF. Because the share price of LEAF will fluctuate, when you sell your shares, they may be worth more or less than what you originally paid for them. LEAF may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if LEAF's liquidity falls below required minimums because of market conditions or other factors. An investment in LEAF is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. LEAF's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to LEAF at any time.

©2019 BlackRock, Inc. All rights reserved. BLACKROCK is a registered trademark of BlackRock, Inc. Prepared by BlackRock Investments, LLC. Member FINRA. 271650-0819/TLSH0919U-939061-1/1

