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JUNE/JULY 2020
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**ANATOMY
OF A 'SHORT'
ATTACK**

**POST-COVID
OFFICE PREP**

**ANALYTICS:
GETTING
BETTER?**



Safeguarding Working Capital

**A disrupted economy will make it harder to manage
receivables, payables, and inventory with efficiency.**



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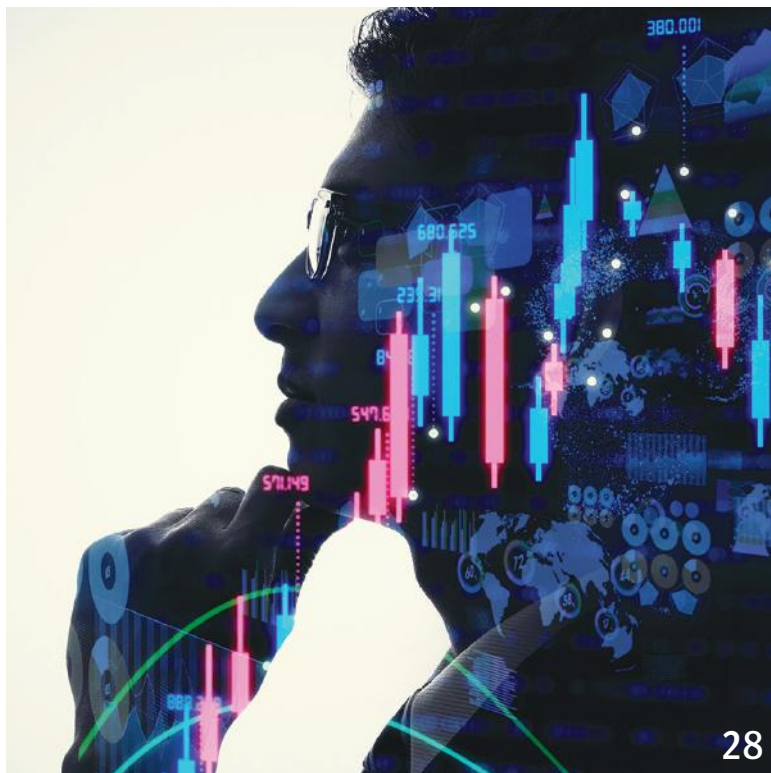
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28

28 In Pursuit of Better Analytics

Finance analytics is maturing at an accelerated pace, but the standards, tools, and talent still have a way to go.

**By Rachele Collins, Ph.D., and
Mercy Harper, Ph.D.**

34 Anatomy of a Short Attack

The COVID-19 pandemic has created an opportunity for short-sellers to take aim at issuers.

By Drew Bernstein



34

38 **cover Story** Safeguarding Working Capital

A disrupted economy will make it harder to manage receivables, payables, and inventory with efficiency.

By Ramona Dzinkowski



8



21



22



16

Up Front

4 | FROM THE EDITOR

6 | INBOX

8 | TOPLINE: Four behaviors that empower CFOs to lead with compassion | Keeping down DSO | Former KPMG auditors charged with exam cheating | U.S. Treasury shifts to longer-duration debt | and more

16 | MACHINE LEARNING
Understanding and Assessing Machine Learning Algorithms

By Chandu Chilakapati and Devin Rochford

18 | TECHNOLOGY
Intelligent Automation: Getting More Bang from the Bots

By Michael Heric and Purna Doddapaneni

20 | WORKPLACE
How to Prepare Your Workplace For Employees to Return

By Anthony Amenta

CFOs Double Down On Staff Cuts Amid Ongoing Disruption

By William Sprouse

22 | BANKRUPTCY
Not Every Financially Distressed Company Should Turn to Chapter 11

By David G. Dragich

24 | ACCOUNTING
Shining a Light on Earnings Adjustments

By Jonathan Nus and Michael Tamulis

By the Numbers

44 | OUTLOOK

Duke University/CFO Survey Results

CFO Optimism Drops to 12-Year Low

The dramatic fall indicates that CFOs were surprised by the large and sudden effects of the coronavirus pandemic on business prospects.

By Lauren Muskett

46 | FIELD NOTES

Perspectives from CFO Research

Regaining Momentum in Cross-Border Operations

Finance executives are looking beyond the turmoil created by the coronavirus pandemic and toward economic recovery and growth.

By Keith Button

48 | THE QUIZ
Infectious Economy

The COVID-19 pandemic and the resulting stay-at-home orders threw the U.S. economy into a tailspin late in the first quarter. See how much you recall about the first months of the outbreak.

Traveler health & safety

Cost control

Two things on the mind of every CFO right now to ensure business continuity and recovery.

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- Jay Salim, VP of HR & Operations, Complex Networks

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Gains and Losses

What have you gained during this pandemic? What have you lost? ¶ If you have your health, you have everything. But many of us may be now pondering our work-from-home experience the past few months. We're also undoubtedly

contemplating our companies along similar lines. Is finance operating more efficiently? Less efficiently? Is communication

better? Worse? Are team members more motivated? Less motivated? As productive as they were before?

These are not academic questions, for the COVID-19 crisis is the herald of big changes in our personal and work lives—or so some claim. But will those changes add to our lives and businesses or detract from them?

In the early weeks of the pandemic I was focused on the losses. Professionally, I missed working beside some wonderful people.

Despite having to ride the cattle cars on the New York subways, I never found traveling into CFO/The Argyle Group's office near The New York Stock Exchange a chore. A day at the office was full of laughs, and I always picked up a valuable nugget when chatting with a sales rep by the coffee machine.

As the pandemic wore on, I started to see the gains, at least the personal ones. Commuting time could be spent sitting in the backyard, listening to the birds (they were no longer competing with airplanes) as the sun went down. All kinds

of money saved from not having to buy lunch or commute.

But I could also see that at least on the business side the gains came with a cost. I knew less about how my co-workers and team members were doing or whether they really liked or hated my ideas or each other's. I also could no longer spy what problems other departments were having that would eventually land on my desk. Zoom meetings failed to provide inputs in those areas.

The ill-effects from the lack of such information may take longer to show up, but show up they will. Eventually, companies are going to have to decide: Are the gains from remote work worth it? Or, are we better off having people come into an office (once they're ready) a majority of the time? Chief financial officers shouldn't be swayed by the declarations of pundits that the office is "dead." Instead, they should take a hard look at both sides of the ledger.

Vincent Ryan
Editor-in-Chief

EDITOR'S PICKS

► GOVERNANCE

Because many U.S. companies give their China operations a large measure of autonomy, top management and boards often do not have a good grasp of the risks they face, according to **"5 Questions About China That Boards Should Be Asking Right Now."**

Among the questions that should be posed: "What is our company's exposure to legal changes in Hong Kong?" Read more on the Harvard Business Review website.

► ACCOUNTING

Warren Buffett decried the FASB mandate on new reporting for unrealized gains and losses, saying short-term fluctuations in securities were irrelevant. But when he sold his airline holdings after a steep drop in their prices, he undermined his own argument. Read **"Buffett Rebuffed"** on CFO.com.

► GROWTH

Growth in investors' fortunes does not necessarily have to be at the expense of other stakeholders, including employees, the environment, and society at large. Instead of "splitting the pie," responsible businesses ought to aim to expand it, says Alex Edmans of the London Business School. Listen to the podcast, **"Why 'Growing the Pie' Can Help Firms Deliver Purpose and Profit,"** on the Knowledge@Wharton website.

CFO, Vol. 36, No. 3 (ISSN 8756-7113) is published six times a year and distributed to qualified chief financial officers by CFO Publishing LLC, 50 Broad St., 1st Floor, New York, NY 10004 (editorial office). Copyright ©2020, CFO Publishing LLC. All rights reserved. Neither this publication nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of CFO Publishing LLC. Direct requests for reprints and permissions to (800) 428-3340 x149 or jkalettha@mossbergco.com. Periodicals postage paid at New York, NY, and additional mailing offices. POSTMASTER: Send address changes to CFO, 50 Broad Street, 1st Floor, New York, NY 10004. CFO is a registered trademark of CFO Publishing LLC. SUBSCRIBER SERVICES: To subscribe to CFO magazine, visit www.cfo.com/cfo-magazine; to update your address or cancel a subscription, please email subscription@cfo.com. To order back issues, email subscription@cfo.com. Back issues are \$15 per copy, prepaid, and VISA/MasterCard orders only. Mailing list: We make a portion of our mailing list available to reputable firms.



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“Good CFO/Bad CFO”

(April/May) outlines the major differences between an effective finance chief and an ineffective one. “The CFO is as much about the business itself as

the numbers,” one reader said. “A good understanding of both makes a good chief financial officer. Also, a good CFO has a good team and allows them to grow professionally and support the chief financial officer.” Another reader added: **“A valuable CFO understands the business and people and enjoys growing both with transparency and humility.”** The definition of a chief financial officer has transformed from just a numbers person that you see only when there is an issue to a knowledgeable partner to everyone who is approachable.”

A critical point many readers agreed on was how good finance chiefs speak with pictures and analogies, not just analytically. “Why is it important? So not only the C-Suite and board of directors understand results, challenges, and opportunities, but everyone within the organization. Benefits? **Instead of being triggered into fear, people will understand the reasons for decisions and will be more inspired to contribute and innovate.”**

Another reader agreed, “The art is no longer in accounting for the numbers,” they posted on LinkedIn. “It is much more about being able to tell the story, help others tell the story, and being able to visualize where the pathways may veer so that decision-makers are already prepared. And pictures are usually understood by everyone, unlike words and numbers!”

“DSO is a good metric, but has a few faults, namely a comparison to an expected value,” said one reader on the CFO.com version of **“Keeping Down DSO”** (page 9). “For example, if DSO is 38 days is that good or bad? Need to know normal terms of sale, too.”

He continued, “Another liquidity metric is cash flow conversion (CCC measured in days). Liquidity is a combination of cash on hand plus available borrowings plus net cash in AR over some period in relation to liabilities (AP) over a similar period. **Knowledge of liquidity available and how fast these liquidity events reoccur (i.e., length of CCC) will help in today’s environment,** especially over a short-term period. Longer term there are other metrics needed to balance profitability with liquidity and risk for any company wishing to remain an ongoing entity.”

“Managing Through COVID-19: Six Imperatives for CFOs”

(CFO.com, April 27) discussed how CFOs must consider what needs to change in how a company operates and what opportunities can be seized. **“This is not going to be a short and back-to-normal event but rather a change-inducing medium-term crisis** with some kind of social distancing staying with us until a vaccine becomes available while the economy takes a U- or L-shaped recovery,” said one reader. “It will bring a change in customer needs and behavior as well as new ways your suppliers, clients, and partners are executing business with you; some of those trends will prevail as a ‘new normal.’ **This situation will force companies to look for new business models and work organizations; some may even prove more efficient and profitable than current solutions.”**

“This situation will bring to the forefront the importance of planning, budgeting, and forecasting [which is] critical to being able to react quickly and be on the offensive,” another reader added.

“And to do this effectively and efficiently, the CFO/

“The CFO is becoming the main decision-maker and the most important employee of the company.”

finance director must steer clear of micro-managing, delegate operational functions to people that he/she trusts, have a strong team that understands the mission and

enjoys their job, focus on the long-term, and be open to constant improvement.”

He continued: “The CFO is becoming the main decision-maker and the most important employee of the company and should always have a seat on the board. In fact, going forward, boards need to reconsider the CEO’s role in leadership.”

In response to **“How to Keep the Bankers and Investors on Your Side During a Recession”** (CFO.com, May 19), readers agreed on the importance of open communication with bankers and investors. “This article highlights the process, with communication being the key,” one reader said. **“Strong, well-thought decision-making will allow your banker and investors to continue to follow your lead.”** The author has hit the nail on the head with his commentary. An excellent primer for problem situations.”

Another reader agreed, “Experience is important, so is regular and plausible communication with your full team.”



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CFO PUBLISHING LLC
is a wholly owned
subsidiary of Argyle
Executive Forum LLC,
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argyleforum.com

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Legal Notice

If You Owned a U.S. Dollar LIBOR-Based Instrument Between August 2007 and May 2010

You May Be Eligible for Payments from \$21.7 Million in Settlements

There are Settlements with Barclays, Bank of America, Citi, HSBC, and JPMorgan ("Settling Defendants") that impact individuals and institutions that entered into over-the-counter financial instruments directly with Ally, American Express, Bancwest, Bank of New York, BB&T, BBVA, BMO Harris, Capital One, Fifth Third, Goldman Sachs, Harris Financial, Keycorp, M&T, Metlife, Morgan Stanley, Northern Trust, PNC, Regions, State Street, Suntrust, TD Bank, Unionbancal, U.S. Bancorp or Wells Fargo, including their subsidiaries, affiliates, predecessors and successors ("Financial Institutions"). The financial instruments include interest rate swaps, forward rate agreements, asset swaps, collateralized debt obligations, credit default swaps, inflation swaps, total return swaps, options, and floating-rate notes.

The litigation claims that the banks manipulated U.S. Dollar LIBOR during the financial crisis, artificially lowering the rate for their own profit, which resulted in purchasers receiving less interest than they otherwise would have. The Settling Defendants deny all claims of wrongdoing.

Am I included?

You are included in the Settlements if you (individual or entity): Transacted with a Financial Institution in the United States in a U.S. Dollar-Based Instrument (as defined in the Settlements), which you owned or on which you otherwise received interest based upon U.S. Dollar LIBOR at any time between August 2007 and May 2010.

What do the Settlements provide?

The Settlements will pay eligible class members who submit valid claims. Additionally, the Settling Defendants will cooperate with the Plaintiffs in their ongoing litigation against the Non-Settling Defendants.

How can I get a payment?

You must submit a Proof of Claim to get a payment. You can submit a Proof of Claim online or by mail. The deadline to submit a Proof of Claim is **January 3, 2021**. You are entitled to receive a payment if you have a qualifying transaction with a Financial Institution. At this time, it is unknown how much each class member who submits a valid claim will receive.

What are my rights?

If you are a member of the class and you do not file a timely claim, you will lose your right to receive money or benefits from the Settlements. If you would like to retain your right to file your own lawsuit against Settling Defendants, you must opt out by **August 31, 2020**. If you remain a party to the Settlements, you may object to the Settlements by **August 31, 2020**. The Court will hold a hearing on **October 5, 2020** to consider whether to approve the Settlements and approve Class Counsel's request of attorneys' fees of up to 33% of the Settlement Funds, plus reimbursement of costs and expenses. You or your own lawyer may appear and speak at the hearing at your own expense.

For more information: 1-866-403-5447 www.liborgreenpondsettlement.com

STATS OF THE MONTH



OUT OF WORK

40.8M

Total U.S. jobless claims since mid-March*

363,000

Average number of weekly jobless claims, 1967-2020

22.4%

U-6 unemployment rate**, end of April 2020

114,000

Number of U.S. retail jobs cut in the first four months of 2020

28.2%

April unemployment rate in Nevada, highest among states

* As of May 28, 2020

** The U-6 unemployment rate includes discouraged workers who have quit looking for a job and part-time workers who are seeking full-time employment.

Source: Bureau of Labor Statistics

TOPLINE

LEADERSHIP

4 Behaviors That Empower CFOs to Lead With Compassion

What can finance leaders do to promote a healthy psychological and emotional perspective on the current crisis? By John Touey

While added stress of managing the impact of the COVID-19 pandemic hit all leaders and functions hard, the hardest hit have been chief financial officers and the departments they are leading through these highly dynamic times. With a majority of companies predicting a loss of revenue and profits, finance functions are being asked to pull all the levers they can to minimize the financial damage caused by the crisis.

I've had the opportunity to speak with a number of CFOs and have heard their stories of how they are managing the impact of the COVID-19 crisis at their companies. What I have witnessed, quite frankly, has been an incredible display of competence and compassion in the most difficult of environments. Yet, one challenge that I've seen neglected is managing the stress that this crisis is putting on these finance leaders and their teams.

There's no doubt that the pace at which these leaders are running is impossible to sustain. On top of that, many of the strategies CFOs are recommending involve restructuring plans that have real human impact.

From a leadership standpoint, the CFO not only has to manage and lead themselves through this crisis, but also their team, and,



more broadly, their companies. What can finance leaders do to cultivate a sustainable environment and promote a healthy psychological and emotional perspective on the current and future crises?

By embracing the following four activities, CFOs can drive positive outcomes in their organizations:

- **Practice self-awareness.** Understand that the crisis is going to have a personal impact on you. Working 16-hour days and making decisions that potentially result in your co-workers losing their jobs is going to take a personal toll.
- **Be open and curious.** Commit yourself to learning and thinking differently about things; don't have the crisis force you to do so. Great organizations will innovate through these times rather than simply

work harder. These organizations will then be poised to pivot quickly as things shift in the future.

- **Actively listen.** Especially to your team. Being receptive to their ideas and understanding their challenges creates connection at a time when you need it the most. Standing firm in your own position versus being open to another's is counterproductive. Keeping an open mind and encouraging diversity of thought is imperative.
- **Focus on the future.** Your organization is going to come out on the other side of this crisis. How depends on the actions you take today, because what you do and say now will be remembered for years to come. Given

this far-reaching impact, talent needs should always be part of the decision-making criteria on any restructuring or downsizing event.

On the personal side, finance leaders may not feel comfortable demonstrating such vulnerability.

But CFOs must be cognizant that their people are looking to them for signals on how to react and respond. If as a leader, you are closed to new ideas, your direct reports will model that same behavior. As leaders of leaders, CFOs' direct reports can cascade unfavorable, pervasive behaviors ubiquitously into the organization. The aftermath of ineffective leadership at this level can echo and reverberate

through every area of the business and have a negative impact on morale.

On the other hand, leaders who can recognize the emotional aspects of what's going on inside themselves and others will be better poised to nurture empathy, create calm and balance, and enhance critical connection among team members throughout the organization. As companies face increasingly challenging barriers, an atmosphere such as this promotes constant, transparent communication, which is required to make stalwart, forward-thinking decisions. **CFO**

John Touey is a principal at executive search firm Salveson Stetson Group.

CASH MANAGEMENT

Keeping Down DSO

- As the economic impacts of
- COVID-19 continue to unfold in the United States and around the world, many organizations face hard decisions.

If your company is slashing discretionary spending, lengthening its payables, and making some difficult near-term choices about the business, you're not alone. Once you've made the most immediate decisions about your company's survival, the next step is considering the mid-term strategies you will need to implement over the next three to six months to ensure ongoing liquidity.

Because days sales outstanding (DSO)—the average number of days it takes an organization to collect payments from its customers—is directly linked to cash reserves and liquidity, working toward the best possible DSO is an essential strategy in moments of downturn and crisis.

There is good reason to believe that DSO will go up across the board in the coming months, as organizations work to lengthen their payables to maintain a stronger cash position. What can organizations do during an undoubtedly chaotic time to keep DSO as low as possible and continue bringing cash in?

The good news is that the best strategies for improving DSO are still effective. While organizations can't always control when (or whether) a customer sends



payment, one area they can control is optimizing and streamlining accounts receivable (AR) processes as much as possible. Invoice errors delay the time it takes to get an accurate invoice to the customer, which in turn delays the time it takes the customer to pay.

If your AR processes are resulting in invoice errors, automation can make a decisive impact in this area.

Beyond reducing cycle times for invoicing, automation enables faster payment. Both help bring in cash more quickly.

While automation undeniably works wonders to help lower DSO, all the automation in the world won't bring in cash from customers that are delaying payment. As organizations work to streamline their processes, they should also conduct customer and customer-segment analysis, particularly on high-value customers.

There are a range of strategies and tools at an organization's disposal to collect from customers more quickly, including updated payment terms, early pay incentives (or late payment penalties), and credit restrictions. All of these strategies should be on the table to ensure a company's ability to keep paying its expenses in the middle of a crisis.

A word of caution is in order, however: Be careful not to burn bridges with your customers. While the preservation of your company is the highest priority, keeping that high-value customer might make it worth accepting slower or lower payments as you and your customer work through the crisis. | **PERRY D. WIGGINS**

M&A

Zoom Buys Keybase

● Zoom acquired Keybase, a security and cryptography company, after the teleconferencing platform faced a backlash over concerns about its privacy policies.

The companies did not disclose the price tag of the May transaction.

In a blog post, Zoom called the acquisition, “another milestone” in its “90-day plan to further strengthen the security of our video communications platform.” It said it would offer an end-to-end encrypted meeting mode to all paid accounts.

Under the terms of the deal, Keybase co-founder Max Krohn will become

head of the Zoom security engineering team, reporting to Zoom chief executive officer Eric Yuan. About two dozen Keybase employees, most of them security engineers, will become Zoom employees. Keybase will become a subsidiary of Zoom.

Zoom has faced criticism over previous claims about the end-to-end encryption of its video calls. In late March, the Federal Bureau of Investigation issued a warning about the hijacking of Zoom video conferences, saying the agency had received multiple reports of conferences being taken over by hackers using the platform to display inappropriate or threatening content.

In April, the company updated its privacy policy amid concerns from multiple states’ attorneys general. On April 8, former Facebook security head Alex Stamos announced he was working for Zoom as an outside consultant.

Zoom said its maximum daily meeting participants jumped from about



10 million at the end of December to 200 million in March as businesses and schools moved meetings online.

In an interview, Max Krohn said Keybase’s current users are predominantly security and cryptography experts, and its technology needs to be simplified for Zoom’s broader customer base.

“These are subtle problems and we’ve been working on this problem for roughly five years, and nothing else,” he said.

Keybase was founded in 2014. The company raised \$10.8 million in a financing round in 2015. | **WILLIAM SPROUSE**

ETHICS

Former KPMG Auditors Charged With Exam Cheating

● Three former KPMG audit partners have settled charges
● that they cheated on internal training exams by improperly sharing answers.

The U.S. Securities and Exchange Commission said Timothy Daly received answers to a test on lease accounting. He got them from Michael Bellach while John Donovan supported exam-sharing within his audit engagement team.

The charges of violating auditor integrity rules against the three accountants came nearly a year after KPMG was fined \$50 million, in part for violations relating to exam-sharing misconduct by auditors.

To settle their cases, Daly, Bellach, and Donovan all agreed to be suspended from appearing or practicing before the SEC as an accountant, which includes not participating in the financial reporting or audits of public companies.

KPMG administers its own set of online training programs



that also qualify for continuing education credit. Each program concludes with an exam that auditors have three opportunities to pass.

According to an SEC administrative order, in September 2018 Daly learned from Bellach, the second partner on a significant

KPMG engagement for which he was lead partner, that the lease accounting test was difficult.

“Bellach also told Daly he had pictures of the questions and his responses that he had taken after he failed his first attempt for his own use in preparing to retake the exam,” the SEC said.

In early October 2018, Daly allegedly sent Bellach a text message asking for the photographs and Bellach allegedly texted them to him. The SEC also said that after KPMG began an internal investigation into potential cheating on exams, Daly deleted the photos and encouraged Bellach to do the same.

Donovan was charged with receiving answers to training exams from subordinates on his engagement team on seven occasions and sharing answers with his team three times. | **MATTHEW HELLER**

U.S. Treasury Shifts to Longer-Duration Debt

● The U.S. Treasury Department offered a 20-year bond for the first time since 1986 to fund its increased borrowing due to the government's coronavirus relief spending.

The 20-year bond was part of Treasury's shift from bills to longer-duration securities as it sought to borrow a record \$3 trillion in the second quarter.

The department auctioned \$20 billion worth of the 20-year bond on May 20. It also increased auction sizes for other maturities, selling a 10-year note in the amount of \$32 billion and a 30-year bond in the amount of \$22 billion starting in May.

Additional 20-year bond auctions are expected in June and July, with each sale offering \$17 billion of notes.

"While the initial increases in financing related to the COVID-19 outbreak response were focused on Treas-



ury bills, Treasury expects to begin to shift financing from bills to longer-dated tenors over the coming quarters," Brian Smith, assistant secretary for federal finance, said in a statement.

"In light of the substantial increase in borrowing needs, Treasury plans to increase its long-term issuance as a prudent means of managing its maturity profile and limiting potential future issuance volatility," he said.

From March to early May, Treasury raised an unprecedented \$1.464 trillion on net and its cash balance reached historically high levels.

John Briggs, head of strategy for the Americas for NatWest Markets, said the 20-year bond would be especially attractive to insurers and pension funds who need more duration in their portfolios to mitigate risk.

"The main story here is they have chosen to lean hardest on the long end of the curve," said Steve Stanley, chief economist at Amherst Pierpont.

"I recommended that Treasury start small with 20s, at least for the first quarterly cycle ... instead Treasury is jumping in with both feet, hopeful that demand will be robust for 20s and that there will not be much cannibalization of demand for 10s and 30s," he added. | M. H.

REGULATION

SEC Charges Two Companies Over COVID-19 Claims

● The Securities and Exchange Commission announced charges against Applied BioSciences and Turbo Global Partners as well as Turbo Global's CEO, Robert Singerman, over misleading claims related to COVID-19.

The complaint against Turbo and Singerman, filed in federal court in the Middle District of Florida, alleges they made false and misleading claims related to equipment used to detect fevers.

The complaint against Applied BioSciences, filed in federal court in the Southern District of New York, alleged the company was offering finger-prick COVID-19 tests for home-use by the general public when the tests could be administered only in consultation with a medical professional.



The SEC said Applied BioSciences had not shipped any COVID-19 tests as of March 31 and did not disclose, in a press release touting the business, that its tests were not authorized by the U.S. Food and Drug Administration.

The SEC, in the charges it filed, said Applied BioSciences shifted its focus from cannabinoid-based products to pandemic products in March to "exploit the COVID-19 pandemic for profit."

The charges against Turbo Global, a digital marketing company, concern its entry into an agreement with a company called BeMotion to provide "non-contact human temperature screening and facial recognition ... and [the] ability to ship the technology to customers within five days of receiving an order." The SEC questioned the "accuracy and adequacy" of the information provided by the company.

Turbo Global's Singerman was charged with fraud by the SEC in 1999 over fraudulent securities sales and a permanent injunction was filed against him.

Regulators suspended trading in both companies. | W.S.

FINANCIAL PERFORMANCE

Video Game Sales Hit Record \$10.8B in Q1

● Video game sales soared as Americans sought diversion and social connection while confined to their homes by the coronavirus pandemic.

NPD Group reported that consumer spending on video gaming in the U.S. reached a record \$10.86 billion in the first quarter of 2020, an increase of 9% from a year ago.

Content sales rose 11% to \$9.58 billion, with gains spanning digital console and PC content, mobile, and subscription spending, as well as the hardware and accessories categories.

“As people have stayed at home more, they’ve utilized gaming not only as a diversion and an escape, but also as a means of staying connected with family and friends,” NPD gaming analyst Mat Piscatella said in a news release. “Whether it was on console or mobile, PC or virtual reality, [the] gaming [industry] experienced play and sales growth during the first quarter.”



Top-sellers in the first quarter include Animal Crossing. The game, a simulation in which the player can create an idyllic existence by building homes and selling turnips, has broken sales records and become a cultural phenomenon.

Animal Crossing’s success helped drive sales of Nintendo’s Switch console in spite of supply issues, TechCrunch said, adding, “The title arrived just in the nick of time for stay-at-home orders in the U.S., delivering a kind of front-facing social experience that much of the competition lacks.”

According to NPD, strong growth in Switch hardware and game sales helped to offset declines across other platforms, leading the overall hardware market to increase 2% to \$773 million in the first quarter. Sales of video game accessories, including gamepads, headsets, cases, and other peripherals increased 1%, reaching \$503 million.

Hardware sales should get a boost in the fall when Sony and Microsoft are expected to release the next versions of their respective consoles, PlayStation and Xbox. | M. H.

REGULATION

ICANN Rejects Move to Privatize .Org Domain

● The Internet Corporation for Assigned Names and Numbers (ICANN), the non-profit organization that oversees the internet’s domain name system, has blocked a proposal to sell the .org domain to private equity firm Ethos Capital for more than \$1 billion.

The .org domain registry is run by the Public Interest Registry (PIR), a non-profit subsidiary of Internet Society, another non-profit. Ethos Capital was proposing to buy the PIR from the Internet Society. Under the terms of the deal, the PIR would have taken on \$360 million in debt to help finance the transaction.

ICANN said the proposed deal would have constituted a fundamental change of control that converted a viable non-profit entity into a for-profit entity with new debt and untested accountability measures.



ICANN said the proposal, which it received last November, prompted significant public backlash. It also cited the proposal to take on debt obligations to finance a leveraged buyout as relevant to its decision to oppose the deal.

In a resolution, the board of directors of ICANN said its opposition was reasonable and in the public interest. “ICANN is being asked to agree to contract with a wholly different form of entity; instead of contracting with the mission-based not-for-profit that has responsibly operated the .org registry for nearly 20 years, with the protections for its own community embedded in its mission and status as a not-for-profit entity,” the group said.

In mid-April, in a letter to ICANN, California Attorney General Xavier Becerra said there was “mounting concern” that ICANN was not responsive to its stakeholders and cited

Ethos Capital’s lack of transparency.

ICANN said it received letters from at least 30 groups opposing the deal but “virtually no counterbalancing support except from the parties involved in the transaction and their advisers.” | W.S.

CORONAVIRUS

Deal to Make COVID-19 Drugs

● The Trump administration has announced a project to use \$354 million in federal funds from the Biomedical Advanced Research and Development Authority (BARDA) under the Department of Health and Human Services to manufacture generic medicines and pharmaceutical ingredients that are needed to treat COVID-19. Right now, these drugs are being manufactured overseas, mostly in China and India.

Under the deal, drug manufacturer Phlow will work to manufacture essential drugs and create an active reserve to reduce dependence on overseas suppliers, the company said.

Phlow said it is working to make doses of five generic medicines deemed essential in treating COVID-19, including medicines used to sedate patients who require ventilators, certain antibiotics, and medicines for pain management.

It is also building the Strategic Active Pharmaceutical



Ingredients Reserve to reduce "America's dependency on foreign nations to support its drug supply chain," it said.

The total contract could increase to \$812 million over 10 years if an option for an additional \$458 million is exercised. If the contract is extended to \$812 million, it would be one of the largest awards in the history of BARDA.

Virginia-based Phlow said it was in discussions with the Trump administration dating back to November, but the project was fast-tracked after COVID-19.

"For far too long, we've relied on foreign manufacturing and supply chains for our most important medicines and active pharmaceutical ingredients while placing America's health, safety, and national security at grave risk," said Peter Navarro, director of the White House Office of Trade and Manufacturing Policy.

Officials with local health systems say concern over shortages has created competition among health-care providers as the pandemic unfolds, with some hospitals employing teams of workers to contact suppliers in search of necessary medicines.

"It's like an auction," Arash Dabestani, senior director at NYU Langone Health in New York, said. "Whoever screams the loudest gets it." | **w.s.**

REGULATION

Morningstar Settles SEC Charges

● According to the Securities and Exchange Commission, from mid-2015 through September 2016, credit rating analysts in Morningstar's asset-backed securities group engaged in sales and marketing to prospective clients. In one instance, a Morningstar analyst wrote a commentary specifically aimed at a potential client issuer and sent it to the issuer to win business. The issuer eventually became a Morningstar client, the SEC said.

"Credit rating agencies must be vigilant to prevent potential conflicts of interest between their ratings functions and their sales and marketing activities," the chief of the SEC enforcement division's complex financial Instruments Unit, Daniel Michael, said. "As the SEC's order finds, Morningstar sometimes enlisted its analysts in business development efforts, introducing the exact conflict of interest that the rule is intended to eliminate."

The company neither admitted nor denied the charges.



"MCR cooperated with the SEC's multi-year investigation and believes the settlement is in the best interest of the company," Morningstar said in a statement.

"There are no allegations that any credit ratings issued by MCR were affected by the conduct described in the settlement."

After the 2008 financial crisis, the SEC was given oversight responsibility for the ratings agencies but enforcement actions against them have been rare.

"MCR takes its regulatory obligations seriously, and the integrity of its credit ratings is of paramount importance," the company said. "As part of its integration with DBRS, which Morningstar acquired last year and well after the investigated activity took place, the combined DBRS Morningstar has enhanced and will further strengthen policies, procedures, and internal controls."

Morningstar also committed to conduct training and implement changes to internal controls. | **w.s.**

MOBILE

Smartphone Market to Fall

● The global smartphone market will decline sharply this year due to the macroeconomic impact of the coronavirus pandemic, though sales of new 5G phones may spark a rebound toward the end of 2020, according to International Data Corp.

The research group said it expects smartphone shipments to fall 11.9% to 1.2 billion units in 2020, following an 11.7% drop in the first quarter that was the largest in history.

For the first half of the year, shipments are expected to decline 18.2% as the COVID-19 crisis saps demand for non-essential items.

“What started as a supply-side crisis has evolved into a global demand-side problem. Nationwide lockdowns and rising unemployment have reduced consumer confidence and reprioritized spending towards essential goods, directly impacting the uptake of smartphones in the short term,” Sangeetika Srivastava, senior research analyst with IDC’s worldwide mobile device tracker, said.

The lack of demand has hit other tech sectors, with PC shipments also falling in the first quarter of 2020. But according to Ryan Reith, program vice president with IDC’s worldwide mobile device tracker, the PC market is in better shape than smartphones because people working remotely might consider replacing PC devices for an at-home office before replacing their smartphones.

“The surge in consumer spending around devices that are less mobile than smartphones (PCs, monitors, video game consoles) will undoubtedly take a share of the consumer wallet that would



have been put toward smartphone upgrades and 5G,” Reith said.

But IDC also sees smartphone shipments returning to growth by the first quarter of 2021, with 5G technology playing a vital role in the recovery, especially if prices of 5G phones are comparable to the price of updating current devices.

“We’re going to see a lot of consumers who go in to buy that next device, they’re not going to buy it because it’s 5G, they’re going to buy it because it’s what they probably would have purchased had they upgraded their current device,” Reith told TechRepublic. | M.H.

BANKRUPTCY

Glassmaker Forced to File Chapter 11

● Libbey, one of the world’s largest makers of glass tableware, filed for Chapter 11 bankruptcy in early June, citing the “unprecedented” impact of the coronavirus pandemic on demand for its products.

The company had been pursuing a restructuring of its balance sheet even before the pandemic forced it to close its factories in Toledo, Ohio, and Shreveport, La., and virtually shut down its restaurant sales channel.

A seven-year, \$440 million loan was scheduled to mature in May.

But Libbey said it had been “unable to offset the steep decline in sales” resulting from the pandemic, leaving it with no choice but to file bankruptcy for the first time in its 202-year history.

“While we entered 2020 with positive momentum from our strong finish in 2019, the dramatic and prolonged impact of COVID-19 on the demand for our products and on our business is truly unprecedented in Libbey’s more than 200-



year history,” CEO Mike Bauer said.

Libbey’s lenders have agreed to provide up to \$160 million in financing to keep it operating during the Chapter 11 process. “Entering this process is a necessary step to address our liquidity, strengthen our balance sheet, and better position Libbey for the future,” Bauer added.

The company, which was founded in 1818 as the New England Glass Company, sells tumblers, stemware, mugs, bowls, shot glasses, canisters, and candleholders through food-service, retail, and business-to-business channels.

Food-service sales in the United States and Canada have been declining due to “take-out and delivery increasing in popularity relative to in-restaurant dining,” Brian Whittman, Libbey’s restructuring consultant, said in a court declaration.

Bauer said Libbey was already seeing some improvement in demand with the gradual lifting of stay-at-home restrictions and the resumption of production in Toledo and Shreveport. | M.H.

Merck Enters Vaccine Race

- The world's largest vaccine maker is no longer on the COVID sidelines after acquiring an Austrian biotech and teaming up with a nonprofit.

Merck said in late May that it would acquire Vienna-based Themis, which has been working with the Institut Pasteur on a COVID-19 vaccine based on a measles vaccine.

"We are eager to combine our strengths both to develop an effective COVID-19 vaccine in the near term and to build a pandemic preparedness capability directed toward emerging agents that pose a future epidemic threat," Dr. Roger Perlmutter, president of Merck Research Laboratories, said.

In another major move, Merck is partnering with the nonprofit IAVI on the development of a vaccine related to Merck's existing Ebola vaccine.

As FierceBiotech reported, Merck, whose vaccine business generated sales of \$8.4 billion in 2019, had "stayed on the sidelines in the early days of the pan-



demic as peers such as AstraZeneca, Pfizer, and Sanofi placed bets on COVID-19 vaccine candidates."

"In selecting Themis as a key plank of its COVID-19 strategy, Merck has indicated it thinks the biotech's

vaccine can clear a high bar," FierceBiotech said.

The Themis vaccine is based on a modified measles virus that delivers bits of the SARS-CoV-2 virus into the body to prevent COVID-19 while the IAVI vaccine uses the same technology as Merck's Ebola vaccine, Ervebo. Both vaccines are made using technologies that have resulted in licensed products.

The company has previously said it is trying to identify internal resources and contract manufacturers that would enable it to produce 1 billion doses of a COVID-19 vaccine.

Cantor Fitzgerald analyst Louise Chen said she expected Merck to be "an important player in the COVID-19 vaccines and treatments landscape" and called the approach to pursue multiple vaccine strategies "a good means to diversify risk." | M.H.

M&A

GE to Sell Lightbulb Unit

- General Electric is selling its iconic lightbulb business, which dates to the period when the company was co-founded by Thomas Edison.

In a statement, GE said it had reached a deal to sell the GE Lighting division to Savant Systems. Financial details were not disclosed, but the value of the deal was estimated at \$250 million.

GE reportedly told employees it was seeking a buyer for the lighting business as early as the spring of 2017. In October 2017, new chief executive officer John Flannery announced the company would sell off more than \$20 billion worth of assets following a series of disappointing earnings reports. At the time, analysts estimated the company held about \$77 billion in corporate debt.

GE has sold off NBC Universal, along with divisions that made microwaves, locomotives, and washing

machines in recent years. It sold GE Capital in 2015 for \$26.5 billion.

"Today's transaction is another important step in the transformation of GE into a more focused industrial company," CEO H. Lawrence Culp said. "Our GE Lighting colleagues will join a fast-growing leader in home automation that shares their passion for bringing the future to light."

Under the terms of the deal, the GE brand will remain in use under a long-term licensing agreement. GE Lighting will remain in its headquarters in Cleveland, and its more than 700 employees will transfer to Savant on the closing of the deal.

Savant, based in Hyannis, Mass., focuses on the smart-home industry and makes lighting, security, climate, and entertainment products, including smart speakers.

"Savant's mission from the start has been to create the number one smart home brand in the world, and I am confident that the acquisition of GE Lighting has moved us significantly toward that ultimate goal," Savant CEO Robert Madonna said.

The transaction is expected to close by the middle of the year. | W.S.



Understanding and Assessing Machine Learning Algorithms

Knowing the types of algorithms and what they accomplish can help finance executives ask the right questions when working with data. **By Chandu Chilakapati and Devin Rochford**

Chief financial officers today face more opportunities to engage with machine learning within the corporate finance function of their organizations. As they encounter these projects, they'll work with employees and vendors and will need to communicate effectively to get the results they want.

The good news is that finance executives can have a working understanding of machine learning algorithms, even if they don't have a computer science background. As more organizations turn to machine learning to predict key business metrics and solve problems, learning how algorithms are applied and how to assess them will help financial professionals glean information to lead their organization's financial activity more effectively.

Machine learning is not a single methodology but rather an overarching term that covers a number of methodologies known as algorithms.

Enterprises use machine learning to classify data, predict future outcomes, and gain other insights. Predicting sales at new retail locations or determining which consumers will most likely buy certain products during an online shopping experience represent just two examples of machine learning.

A useful aspect about machine learning is that it is relatively easy to test a number of different algorithms simultaneously. However, this mass testing can create a situation where teams select an algorithm based on a limited number of quantitative criteria,

using labels. In the case of a financial institution, a model can be used to classify which loans are most risky and which are safer. Prediction models on the other hand, produce numerical outcome predictions based on data inputs. In the case of a retail store,

such a model may attempt to predict how much a customer will spend during a typical sales event at the company.

Finance professionals can comprehend the value of classification by seeing how it handles a desired task. For example, classification of accounts receivables is one



namely accuracy and speed, without considering the methodology and implications of the algorithm. The following questions can help finance professionals better select the algorithm that best fits their unique task.

Here are four questions you should ask when assessing an algorithm:

1. Is this a classification or prediction problem? There are two main types of algorithms: classification and prediction. The first form of data analysis can be used to construct models that describe classes of data

way machine learning algorithms can help CFOs make decisions. Suppose a company's usual accounts receivable cycle is 35 days, but that figure is simply an average of all payment terms. Machine learning algorithms provide more insight to help find relationships in the data without introducing human bias. That way, finance professionals can classify which invoices need to be paid in 30, 45, or 60 days. Applying the correct algorithms in the model can have a real business impact.



■ Chandu Chilakapati



■ Devin Rochford

2. What is the selected

algorithm's methodology? While finance leaders are not expected to develop their own algorithms, gaining an understanding of the algorithms used in their organizations is possible since most commonly deployed algorithms follow relatively intuitive methodologies.

Two common methodologies are decision trees and Random Forest Regressors. A decision tree, as its name suggests, uses a branch-like model of binary decisions that lead to possible outcomes. Decision tree models are often deployed within corporate finance because of the types of data generated by typical finance functions and the problems financial professionals often seek to solve.

A Random Forest Regressor is a model that uses subsets of data to build numerous smaller decision trees. It then aggregates the results to the individual trees to arrive at a prediction or classification. This methodology helps account for and reduces a variance in a single decision tree, which can lead to better predictions.

CFOs typically don't need to understand the math beneath the surface of these two models to see the value of these concepts for solving real-world questions.

3. What are the limitations of algorithms and how are we mitigating them? No algorithm is perfect. That's why it's important to approach each one with a kind of

healthy skepticism, just as you would your accountant or a trusted adviser. Each has excellent qualities, but each may have a particular weakness you have to account for. As with a trusted adviser, algorithms improve your decision-making skills in certain areas, but you don't rely on them completely in every circumstance.

With decision trees, there's a tendency that they will over-tune themselves toward the data, meaning they may struggle with data outside the sample. So, it's important to put a good deal of rigor into ensuring that the decision tree tests well beyond the dataset you provide it. "Cross contamination" of data is a potential issue when building machine learning models, so teams need to make sure the training and testing datasets are different, or they will end up with fundamentally flawed outcomes.

One limitation with Random Forest Regressors, or a prediction version of the Random Forest algorithm, is that they tend to produce averages instead of helpful insights at the far ends of the data. These models make predictions by building many decision trees on subsets of the data. As the algorithm runs through the trees, and observations are made, the prediction from each tree is averaged. When faced with observations at the extreme ends of datasets, it will often have a few trees that still predict a central result. In other words, those trees, even if they aren't in the majority, will still tend to pull predictions back toward the middle of the observation, creating a bias.

4. How are we communicating the results of our models and training our people to most effectively work with the algorithms? CFOs should provide context to their organizations and employees when working with machine learning. Ask yourself

questions such as these: How can I help analysts make decisions? Do I understand which model is best for accomplishing a particular task, and which is not? Do I approach models with appropriate skepticism to find the accurate outcomes needed?

Nothing is flawless, and machine learning algorithms aren't exceptions to this. Users need to be able to understand the model's outputs and interrogate them effectively in order to gain the best possible organizational results when deploying machine learning.

A proper skepticism using the Random Forest Regressor would be to test the outcomes to see if they match your general understanding of reality. For example, if a CFO wanted to use such a model to predict the profitability of a group of enterprise-level services contracts she was weighing, the best practice would be to have another set of tests to help the team understand the risk that the model may classify highly unprofitable contracts with mildly unprofitable ones. A wise user would look deeper at the underlying circumstances of the company to see that the contract carries a much higher risk. A skeptical approach would prompt the user to override the situation to get a clearer picture and better outcome.

Analyze and Engage

Understanding the types of algorithms in machine learning and what they accomplish can help CFOs ask the right questions when working with data. Applying skepticism is a healthy way to evaluate models and their outcomes. Both approaches will benefit finance professionals as they provide context to employees who are engaging machine learning in their organizations. **CFO**

Chandu Chilakapati is a managing director and Devin Rochford a director with Alvarez & Marsal Valuation Services.

Intelligent Automation: Getting More Bang from the Bots

The path to realizing the benefits of automation has been more challenging than many executives anticipated. **By Michael Heric and Purna Doddapaneni**

From improving accounts receivable and tax preparation to tracking far-flung routers for telecom providers, automation is changing how companies operate and people work across a broad range of business processes. Automation has advanced to the extent that companies lacking an ambitious and rigorous

automation agenda risk falling behind their competition.

Over the next two years, a recent Bain & Co. survey of nearly 800 executives worldwide found, the share of companies scaling up automation technologies will at least double. The fallout from the coronavirus will likely accelerate adoption. These technologies include low code automation, optical character recognition (OCR), robotic process automation (RPA), and conversational artificial intelligence (AI).

But the path to realizing the benefits of automation has been more challenging than many executives anticipated. Nearly half (44%) of survey respondents, for instance, said their automation projects had not delivered the expected savings.

The benefits are clear, with labor time-savings leading the list. It either frees up employees to do higher-value work, or can be recouped as cost savings, or both. Survey respondents reported cost savings of roughly 20% on average over the past two years across processes in finance, human resources, supply chain and procurement, and service delivery and operations.

Microsoft's finance group, for



instance, has consolidated and simplified disparate reports, tools, and content in an automated, role-based personalized portal. The group also uses bots in financial operations, credit and collections, management reporting, and tax. As a result, Microsoft finance has reduced by 20% the time spent compiling and validating data, which saves over 150,000 hours of work every quarter. In addition, chatbots reduce support costs by 30%.

The median payback for labor-cost savings is 13 to 18 months, the survey found. Fertile territory consists of

high-volume, rules-based processes, such as scraping data from the web, copying and pasting data from one system to another, doing heavy data manipulations, or opening emails and attachments—as companies do in providing status updates to customers or documenting a loan.

Cost savings, moreover, is just the start. On the revenue side, automation can stem revenue leakage or bring revenue in the door faster.

Telecommunications carriers, for example, have many business customers that each has hundreds or thousands of routers throughout their locations. As routers break or get replaced by new

models, or customers start or stop service, keeping track of the assets has proved difficult, and use of the assets does not always flow through to billing.

One major telecom in the Asia-Pacific region dealt with the issue by building scripts to identify products across all its customers, using analytics to flag the gaps, and deploying automation to reconcile and recover the leaked revenue. Automation also handled updating and billing for future assets. In this way, the carrier was able to bring in millions of dollars in previously lost revenue.

Companies have realized other benefits as well, notably improved process quality, accuracy, reduced cycle times, and improved compliance. All of these make for a better experience for customers.

In the oil and gas industry, companies long had to rely on manual inspection of pipelines for corrosion and leakage. Now companies can send pictures of a pipeline to an AI engine, compare the pictures with an existing database, and alert the right employees to possible problems. This has increased pipeline uptime, reduced manual inspections, improved safety, and helped pipeline crews prioritize the repair of the most important kinds of damage.

Dealing With Execution Barriers

Yet, significant barriers to realizing value from automation persist—and the major barriers all involve execution: competing business priorities, lack of necessary funding, and a lack of skills or centralized coordination. Addressing these execution barriers requires a clear-eyed self-appraisal of the organization. Our analysis of the survey responses, combined with experience working with companies to apply automation strategically, suggests three key principles to keep in mind to overcome these execution barriers.

First, ground automation in the customer's experience. Automation should further the broader redesign of the customer experience, in which a cross-functional team defines the desired future state of the experience, working backward on how to achieve it through changes to people, policies, processes, and systems.

Take billing of customers, for instance. Customers might not care if their provider reduces billing costs through automation; they want bills to be accurate, prompt, and easily reviewed. Automating billing needs to not only reduce costs but also deliver a billing experience that customers value.

Because automation is just one tool,



• Michael Heric



• Purna Doddapaneni

it often works best in tandem with other tools and as part of a deliberate overall strategy. A global consumer products manufacturer mapped the end-to-end experience of customers, partners, and employees so that it could understand where automation would best play a role. Rather than letting the magnitude of cost savings solely inform initial automation, the company focused on the episodes that mattered most to those stakeholders. The executive team set guidance based on the big goals that automation and digital technologies could enable. The company even combined the IT department with the global business services organization to accelerate the adoption of automation.

Second, spend as much if not more time on what comes after automation. Beyond developing, testing, deploying, and maintaining the technology, what really matters is achieving the expected business outcomes from the automation. In this respect, it's similar to outsourcing. Beyond selecting the right partner, negotiating a competitive contract, and transitioning the work to the provider, the retained organization left behind must be sized correctly and fit for purpose, or else the savings from outsourcing won't materialize.

The risk is even higher for automation, because much of the work automated consumes only a fraction of each employee's time. Companies that fail to redesign the jobs impacted will not achieve their goals.

Third, treat automation as a major change to be actively managed from the start. Part of strong C-level

sponsorship involves effectively managing change with the business, so that automation remains a priority. The senior team must demonstrate how automation will change the experience of employees and customers for the better, painting this picture in detail before automation goes live. Without specificity on how the experience will improve, many employees naturally will resist.

The most effective change programs clearly communicate which employee populations will be affected by automation and specifically how. Open, direct, and early communications about the impact of automation, together with reskilling programs, help people start thinking about or acting on new career paths. In addition, some effective programs involve employees in identifying which points of a process are broken or inefficient.

A Look in the Mirror

Companies committed to a sustained, holistic approach to automation should answer a set of tough questions:

- Do we have genuine sponsorship by the senior executives, business unit leaders, and functional leaders, not just from shared services leaders?
- Is automation a visible and prominent part of the corporate strategy and operational plan?
- Are we thinking boldly enough with a vision of how to improve a process and the customer experience?
- Have we picked the right processes to automate?

These questions help build a framework for realizing the value that automation can generate. Without it—if a company simply sets up automation projects and lets them run—the efforts are bound to stall out. **CFO**

Michael Heric is a partner with Bain & Co. who leads the firm's corporate support solution and automation capabilities. Purna Doddapaneni leads Bain's automation center of excellence.

How to Prepare Your Workplace For Employees to Return

Planning and making good use of the remaining time employees are working from home can get your workplace up and functioning more quickly. **By Anthony Amenta**

Until there is a vaccine or treatment for COVID-19, it's clear that workplaces, particularly dense offices in major cities, will have to make some changes for employees to return. This need to adjust the office environment for employee safety comes at a time when budgets are straining under a recession

and lost revenue. Planning and making good use of the remaining time during which employees are working from home can help reduce costs and get a workplace functioning more quickly.

The Post-Pandemic Office

As employees start to return to offices, some companies will find they need less space than before. Some workers who went remote during the pandemic will want to stay remote in the long term. Other companies will require more square footage to provide adequate spacing between workers. Now is a great time to assess which category your business falls into.

For companies with open plan offices, providing at least six feet between workers was always a good idea to reduce noise and distraction, long the primary complaints of open-plan detractors. One of the reasons the open-plan office came into favor in the first place was as a cost-saving measure compared with traditional workplaces where everyone has a door. With a need to space workers by at least six feet, that calculation may have shifted.

For the first time in decades, compa-



nies in locations with high real-estate prices may find it more cost-effective to provide individual offices. With advances in modular glass walls, it's now possible to create tiny offices that don't feel claustrophobic. One recent project my team designed in Boston has 64 square-foot offices, which would not be a practical design choice without sound-blocking, durable glass that only just arrived on the market.

A middle-ground option between an open plan and individual offices are modular glass partitions that extend higher than traditional cubicles and

offer more protection from coughs and sneezes in the adjoining workstation without creating a sense of isolation.

Those who take pride in their office design may hear the word "modular" and balk; however, we have found that several suppliers are creating modular

building materials that are quite compatible with high-end, custom-designed offices. These are quality materials and not typically the least expensive option, though they are usually the fastest, which could present an advantage toward getting the workplace functioning again quickly.

Begin Taking Action

Companies that wait until governments lift restrictions to begin preparing their offices for the return of workers will lose valuable time in the transition. As the pandemic subsides, there is likely to be a rush to get things built, creating competition for builders and materials. The further along in the process you can advance while your team is working remotely, the stronger your position will be to bring them back in the office quickly.

Architects and designers are among the sectors of the economy that are

still functioning remotely. 3D surveying technology can allow design professionals to capture high-resolution images of your workplace and create very detailed plans while working from home.

These drawings can be turned around more quickly now than if you wait to set the design phase in motion until after restrictions are lifted.

While planning is possible anywhere, the ability to build currently varies by location. In areas where building is still taking place, the numbers we are seeing on bids from contractors are much lower than usual. If your office—or one or more of



• Anthony Amenta

your satellite offices—is in a location where restrictions have not halted construction, engage a builder soon. That will almost certainly get you the lowest possible price on both labor and materials.

Pursue Landlord-Tenant Partnerships

If your organization was on the verge of occupying or leasing a new space before the pandemic hit, it might seem risky to move ahead with that plan in the face of such economic uncertainty. However, there may also be a new opportunity to collaborate with a commercial landlord.

Landlords are desperate to keep the tenants they have and attract new ones. They may be open to sharing redesign costs if your workplace requires significant changes to bring employees back or if you need assistance building out a new space. It's certainly worth a discussion. Similarly, if your organization leases commercial real estate, you may want to team up with your tenants and get creative about how you can ensure a long-term partnership that will outlast this recession. **CFO**

Anthony Amenta is a co-founding partner at Amenta Emma Architects with offices in Boston, New York, and Hartford specializing in workplace, retail, senior living, and education design.

CFOs Double Down On Staff Cuts Amid Ongoing Disruption

Finance chiefs say they plan to spend more on cloud, robotics, and advanced analytics.

The number of companies furloughing staff and cutting salaries could more than double between March and June, according to according to a Gartner survey of 161 finance executives.

The survey found 11% of respondents reduced staff in March. Some 25% said they plan to make cuts in May and June.

"CFOs are unsure what reopening will look like and have little visibility into when revenue will start to normalize," said Alexander Bant, a vice president at Gartner. "This is driving CFOs to look for the next round of structural cost cuts to preserve cash for the coming month."

"Companies are being deliberate about rapidly reducing headcount

in areas of the company they do not believe will return to normalized revenues anytime soon. They are protecting roles in parts of the organization that will be necessary to meet a return of demand across the coming two quarters," Bant said.

The survey found companies were planning to invest more in robotic process automation, cloud-based technologies, and advanced analytics as they prepare for social-distancing rules to be eased or lifted.

Twenty-four percent of finance executives said they expected more spending on RPA, 20% expected more spending on cloud-based ERP, and 19% expected more spending on advanced analytics. Open hiring and

capex investments were the favorites chief financial officers intended to reintroduce spending on when revenues returned.

"Conversely, we see several areas that CFOs tell us they will not bring back spend right away. Notably, real estate spend, sales reward trips, social media marketing, and service provider contracts do

not look like they will be making a rapid return to previous expenditure levels," Bant said.

An unprecedented 20.5 million jobs were lost in April as the U.S. economy reeled from the impacts of the COVID-19 pandemic.

The real unemployment rate was 22.8%, though the Secretary of the Treasury, Steven Mnuchin, said the actual jobless rate was possibly 25%, comparable to the Great Depression. | **WILLIAM SPROUSE**



Not Every Financially Distressed Company Should Turn to Chapter 11

Financially distressed companies will find that Chapter 11 can be expensive, slow, and involve lots of oversight and reporting requirements. **By David G. Dragich**

Given the current crisis, many businesses, large and small, are struggling to stay afloat. A number of high-profile businesses have already filed for bankruptcy protection, and a massive wave of Chapter 11 filings is almost certain to crash in the coming months. From retail to energy, hospitality to

manufacturing, almost no industry has been—or will be—immune from financial distress.

Chapter 11 bankruptcy can be a useful and effective tool for business restructuring during an economic downturn. Among other benefits, Chapter 11 imposes an automatic stay on creditor collection efforts; it allows a company to reduce its debts; and it provides breathing room to make financial and operational changes that can allow for a leaner, stronger, and more nimble company to emerge. In modern-day cases, in which bankrupt companies must execute their restructuring plans within a tight timeframe, Chapter 11 also provides a venue to sell assets free and clear of creditor liens and claims.

However, Chapter 11 bankruptcy is not always the right option for a struggling business. It can be expensive, slow, and involve lots of oversight and reporting requirements. Most importantly, without adequate

fight over the scraps. But that's messy and can often leave a company's key stakeholders exposed to liability. A better approach for a business that must shut down but doesn't want to do so in an ad-hoc manner is to utilize a process that enables it to maxi-

mize the value of its assets and restructure or wrap up its affairs, in a more organized way.

Assignment for the Benefit of Creditors

In many states, an assignment for the benefit of creditors ("ABC") can be an effective Chapter 11 alternative. An ABC is an insolvency proceeding governed by state law

rather than federal bankruptcy law. In some states, the right to pursue an ABC is rooted in the common law; in others, it's governed by statute.

Generally speaking, in an ABC, a company (the assignor), transfers all of its rights, title, and interest in its assets to an independent fiduciary (the assignee). The assignee then liquidates the assets and distributes

funding (known as debtor-in-possession, or DIP, lending) in place, and a core, fundamentally sound business to reorganize around, Chapter 11 is rarely a viable path forward.

Companies experiencing financial distress have a number of options other than Chapter 11. One is to simply shut down and dissolve and leave it to creditors to sort out and



the net proceeds to the company's creditors. While the process varies by state, in most jurisdictions board and shareholder approval are required to initiate an ABC. In other states, an assignee or assignor must register the ABC with a state court of appropriate jurisdiction.



■ David G. Dragich

So, why would a company pursue an ABC rather than Chapter 11, or even Chapter 7, bankruptcy? Some of the primary advantages of an ABC include:

- **Lower Cost.** An ABC typically costs less than a Chapter 11 reorganization or Chapter 7 liquidation because there are far fewer administrative obligations involved and little to no court oversight.
- **Speed.** One of the reasons ABCs cost less than other options is that the process can proceed much more quickly.
- **Flexibility.** Unlike in a Chapter 7 bankruptcy or state court receivership proceeding, in an ABC the company/assignor gets to choose the fiduciary/assignee who oversees the liquidation of assets.
- **Expedited Sale Proceedings.** In an ABC, there are no sale procedures equivalent to those found in Section 363 of the Bankruptcy Code, so assets can be sold quickly.
- **Less Oversight.** The degree of court supervision in an ABC proceeding varies by jurisdiction (from none to some) but is always less than in bankruptcy.

While there are many advantages to ABC proceedings, they are not appropriate for every circumstance. One of the main disadvantages to ABCs is that, unlike in a bankruptcy proceeding, there is no automatic stay in place. In most receivership proceedings, the court order appointing a receiver also contains some

form of the automatic stay that limits litigation against the liquidating company. Accordingly, existing lawsuits may proceed, and new ones may be filed against a company pursuing an ABC.

Federal or State Court Receivership

A federal or state court receivership involves the court appointment of a receiver to oversee and, in most cases, operate or liquidate a business. A receiver is a neutral and independent third party appointed to act on behalf, and for the benefit, of all interested parties. Receiverships are often sought by secured lenders as a liquidation-alternative to bankruptcy.

A receiver's duties and responsibilities, such as monetizing assets and distributing funds, are outlined in an order entered by the court overseeing the receivership. The receiver's role is, in many ways, equivalent to that of a trustee in a bankruptcy proceeding. A receiver, however, typically has much greater flexibility to perform his or her duties under a more simplified and streamlined framework and process.

A receivership can be an effective option to deal with lender and other creditor claims in an organized fashion when funds are not available to pursue a bankruptcy proceeding. One major difference between a bankruptcy and receivership proceeding is that there is no statutory mechanism to recover preferential transfers in a receivership.

Out-of-Court Workout

A final bankruptcy alternative is an old-fashioned, roll-up-your-sleeves, out-of-court workout. To the extent a troubled company has a viable business but too much debt—secured or unsecured or both—it may be able to work itself out of trouble by pursuing a path that doesn't require a court filing or the relinquishment of control.

Many lenders, who don't want to throw more good money after bad and are presented with a workable business plan, may be willing to enter into forbearance agreements with borrowers that allow flexibility in terms of loan payment amounts and timing. For a lender otherwise faced with liquidating the borrower's collateral, a forbearance that allows the borrower to get back on its feet is often the better option.

The same is true of a company's unsecured trade creditors. From landlords to suppliers, many creditors would rather negotiate an accommodation that allows a company to continue operating and paying down its debts rather than running into court to seek a recovery. However, because many creditors don't want to be left holding the bag while others move first to pursue recoveries, a company must often execute a coordinated strategy with all of its creditors that provides a global resolution of claims.

By aggressively and proactively pursuing an out-of-court workout, a company can buy itself time and lessen its debt obligations in order to fight another day.

Determining the right path forward for an insolvent company depends on the specific facts and circumstances at issue, and such a determination should be made in consultation with legal counsel that understands the relative advantages and disadvantages of each option. For any company that is experiencing distress, an ABC, receivership, or out-of-court workout can be an effective alternative to Chapter 11 bankruptcy, especially if speed is of the essence and less oversight of the process is desired. **CFO**

David G. Dragich, founder of The Dragich Law Firm, represents businesses in all aspects of complex corporate reorganizations, bankruptcy, insolvency, and distressed asset acquisitions and dispositions.

Shining a Light on Earnings Adjustments

Finance will have to make some judgments when trying to present a normalized view of ongoing financial performance. **By Jonathan Nus and Michael Tamulis**

As the financial impact from COVID-19 unfolds, many companies are grappling with sudden and dramatic shifts in business demand. For some, protracted stay-at-home orders mean significantly reduced revenues, higher costs from supply chain disruption and other matters, and suppressed levels of earnings before interest, taxes, depreciation, and

amortization. Companies not dealing with business closures may still be incurring additional costs to keep their workforces safe.

While the severity and length of the pandemic remains uncertain and longer-term repercussions unclear, many companies are closely monitoring the effects of the pandemic on EBITDA, a key measure often used in financing arrangements and in valuing a business. Indeed, we find some companies are adjusting EBITDA for the impact of COVID-19 and have coined the term “EBITDAC,” to represent EBITDA before coronavirus.

What other kinds of EBITDA adjustments are we seeing, and how will COVID-19 continue to affect accounting and valuations?

EBITDA and Adjusted EBITDA

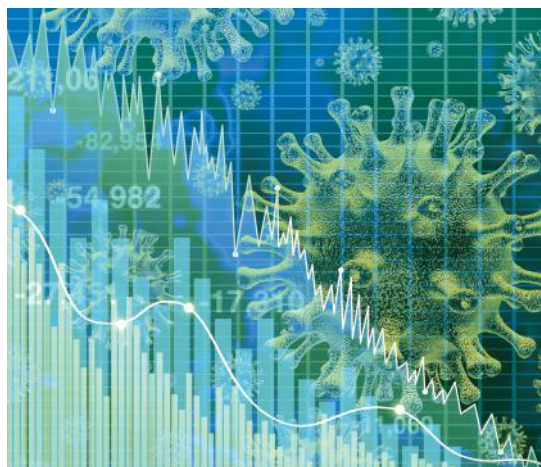
EBITDA is a common component of financial covenants in credit agreements. Credit agreements typically allow for a variety of adjustments, including extraordinary, unusual, or non-recurring charges (see Table 1). The intention of adjusted EBITDA, which includes add-backs and deductions, is to present a normalized view of ongoing

general the ability to maximize add-backs provides increased capacity for incremental debt, dividends, and investments. For companies under stress from COVID-19, additional add-backs may mean avoiding default on their credit agreements.

Unequal Adjustments

As companies assess the financial impact of COVID-19, we find some are starting to quantify the effects in the calculation of adjusted EBITDA. While some adjustments are likely to be viewed as extraordinary, nonrecurring, or unusual, others are more subjective and will likely need to be negotiated (see Table 2).

We expect that cash expenses which can be



While the SEC is encouraging disclosures about the effects of COVID-19, the SEC has also reinforced its view that estimates of lost revenue from the pandemic should not be included in the calculation of non-GAAP measures.

ing financial performance. However, the types of allowed adjustments are largely driven by judgment and negotiation and can be subject to accounting interpretation.

While the types of allowed adjustments differ by credit agreement, in

clearly identified and are directly attributable to COVID-19 will be fairly common add-backs. These types of adjustments are consistent with recently released SEC guidance for disclosing the impact of COVID-19, which we believe highlights that

Table 1: Selected EBITDA Adjustments

Extraordinary	<p>U.S. GAAP no longer defines (ASU 2015-01, issued January 2015).</p> <p>Under the historical GAAP definition, an underlying event or transaction had to be (i) of an unusual nature and (ii) infrequent, i.e., the type that would not reasonably be expected to occur in the foreseeable future, taking into account the environment in which the entity operates.</p>
Nonrecurring	<p>U.S. GAAP does not define.</p> <p>SEC rules and regulations provide guidance which commonly interpret “nonrecurring” items as those items which have not occurred within the most recent two years and are not expected to occur within the following two years.</p>
Unusual	<p>U.S. GAAP defines.</p> <p>An underlying event or transaction that possesses a high degree of abnormality and is of a type clearly unrelated to, or only incidentally related to, the ordinary and typical activities of the entity, taking into account the environment in which the entity operates.</p>

adjustments to EBITDA be both: (a) incremental to charges incurred prior to the outbreak and not expected to recur once operations return to normal and (b) clearly separable from normal operations.

We’ve also begun to observe certain more subjective adjustments such as those that relate to lost revenue or missing margin. These adjustments are inherently more controversial given the amounts are more challenging to isolate, quantify, and factually support. Although it is clear that many businesses are affected by closures and stay-at-home orders, it is difficult to quantify the effects on lost business and separate the effects from other drivers. In addition, there may be significant uncertainty with respect to when activity will return to pre-COVID-19 levels, if ever, for the reporting entity.

While the SEC is encouraging disclosures about the effects of COVID-19, the SEC has also reinforced its view that estimates of lost revenue from the

pandemic should not be included in the calculation of non-GAAP measures.

The subjectivity of some adjustments results from the assumptions that must be made to quantify the amount of EBITDA to add back rather than the amount of EBITDA that was lost. For example, a company may

easily be able to quantify the EBITDA impact of lost volumes from a contract that was terminated or an event that was canceled due to COVID-19. However, the amount to add back to EBITDA, if any, will likely be based on subjective assumptions made by management.


Adjusted EBITDA also plays an important role in merger and acquisition activity as it helps inform a company’s valuation. EBITDA adjustments for M&A purposes are often similar to those included in covenant calculations but may include a host of other adjustments indicative of demonstrating long-term value.

Loans: Forgiven But Not Forgotten

EBITDA and debt-based measures could also be impacted by participating in U.S. government stimulus programs, such as those provided by the Coronavirus Aid, Relief, and Economic Securities Act (“CARES Act”). This program allows eligible companies to receive forgivable loans through the Paycheck Protection Program (PPP), if certain conditions such as maintaining specified levels of payroll and employment are met.

The impact these loans will have on key financial measures could

Table 2: COVID-19 Related Adjustments—Examples

ADJUSTMENT SUBJECTIVITY 	
• Hygiene supplies and expenses (e.g., masks, disinfectant, and cleaning products)	• Lost revenue/volumes
• Pandemic planning expenses	• Missing contribution margin
• Hazard pay expenses	• Supply chain disruption
• Event cancellations related to the pandemic	• Operational inefficiencies
• Contract terminations due to the pandemic	• Prospective cost structure changes

come down to whether the company meets eligibility and loan forgiveness criteria—and how loan proceeds are accounted for. This is because there is no guidance in U.S. GAAP that specifically addresses the accounting by a business entity that obtains a forgivable loan from a government entity.

We understand recent and emerging accounting interpretation suggests that loans under the PPP may be reported as either debt or an in-substance government grant, the accounting for which may differ and could impact EBITDA as well as debt-based measures. Companies that recognize loan proceeds as debt would accrue interest over the loan term. If any amount is ultimately forgiven, income from loan extinguishment would be recognized as a gain in earnings. In contrast, companies that apply grant accounting would not record any debt. (See summary in Table 3.) It will also be important to consider how companies consider any adjustments for loan forgiveness gains to the extent add-backs for other losses are being made.

In practice, we expect the alternatives, coupled with uncertainties about the loan forgiveness criteria, could lead to some diversity in practice around the manner and timing in which the accounting is recognized.

Other Considerations

A number of other accounting issues have arisen from COVID-19 that could impact EBITDA. These issues include rent concessions provided to tenants impacted by the economic disruption as well as restructuring costs associated with lease exits, severance, and other disposal activities. Considering the accounting rules related to these issues may be challenging, it will be important to weigh the extent to which these items impact adjusted EBITDA. Beyond these issues, we expect to see additional other financial reporting challenges rise to the forefront.

Table 3: Accounting Alternatives for COVID-19 Government Loans

Accounting alternative	Accounting consideration	EBITDA Impact
Debt	Treated as debt instrument applying the interest method, which should take into account any payment deferral for the loan.	Debt extinguished when all loan forgiveness conditions are met. Gain recognized when company is legally released from obligation.
In-substance grant	Treated as a conditional grant (akin to a gain contingency) and recognized on the balance sheet as a current liability rather than debt.	Gain is deferred and recognized when uncertainties are resolved and grant forgiveness requirements are satisfied. Gain may be presented as other income, or as an offset to the expenses that the grant was used for.

While there is a lot of attention on the types of adjustments included within EBITDA, it is important to also take a broader perspective on COVID-19's impact on operations, margins, and financial flexibility going forward. As companies pivot to recovery, there are still many unknowns about how deep and severe the economic and health impacts will be—and when and if demand for business returns to pre-COVID 19 levels. These unknowns include the scope and effect of further governmental, regulatory, fiscal, monetary, and public health responses. Ultimately, no single number can represent a true depiction of “normalized” performance, and it's incumbent on the users of financial information to become more comfortable with degrees of uncertainty.

We expect to see the manifestation of COVID-19 adjustments in the capital markets for some time. Even if recovery is swift, financial covenants are generally tested on a “last-12-months” basis. Over the course of time, adjustments will become more commonplace and the types and

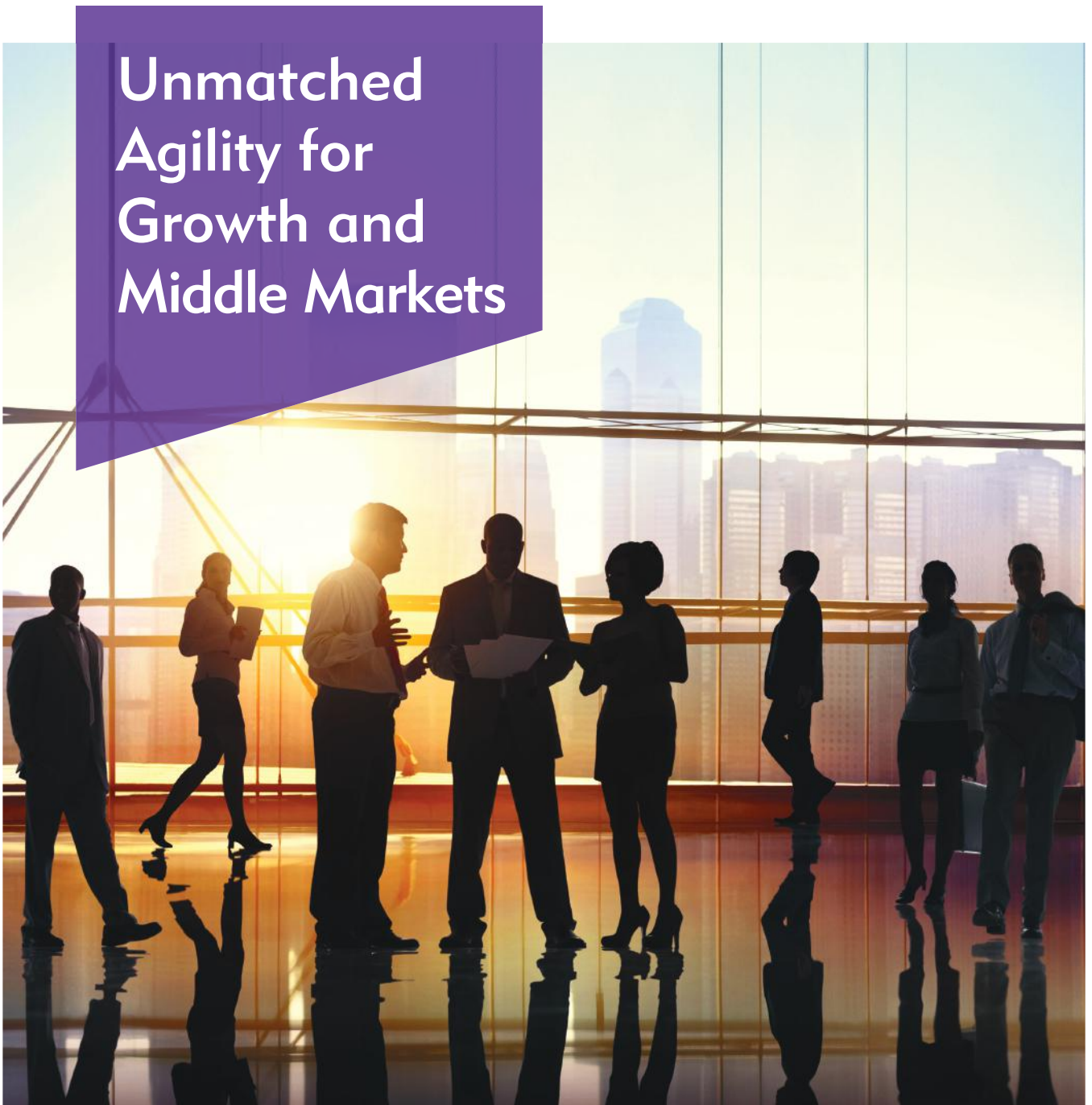
amounts of adjustments will become more evident.

Similarly, we expect to see the effects of COVID-19 adjustments incorporated into valuations as companies demonstrate operational capacity in a post-COVID-19 world. While valuation takes a longer-term view, we anticipate the increased use of earnouts in M&A deals until the uncertainty surrounding the impact of COVID-19 is reduced with the passage of time.

Ultimately, adjusted EBITDA is and always has been subject to interpretation by the users of this information, and we believe the effects of COVID-19 will be no different. In the near-term we expect significant diversity in the meaning of “adjusted EBITDA” as it is used both in financing and M&A. However, over time we expect to see some convergence of viewpoints based on what is accepted in the market. **CFO**

Jonathan Nus and Michael Tamulis are managing directors within Alvarez & Marsal's transactions advisory group and co-leads of the group's capital markets and accounting advisory team.

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In Pursuit of **Better** Analytics

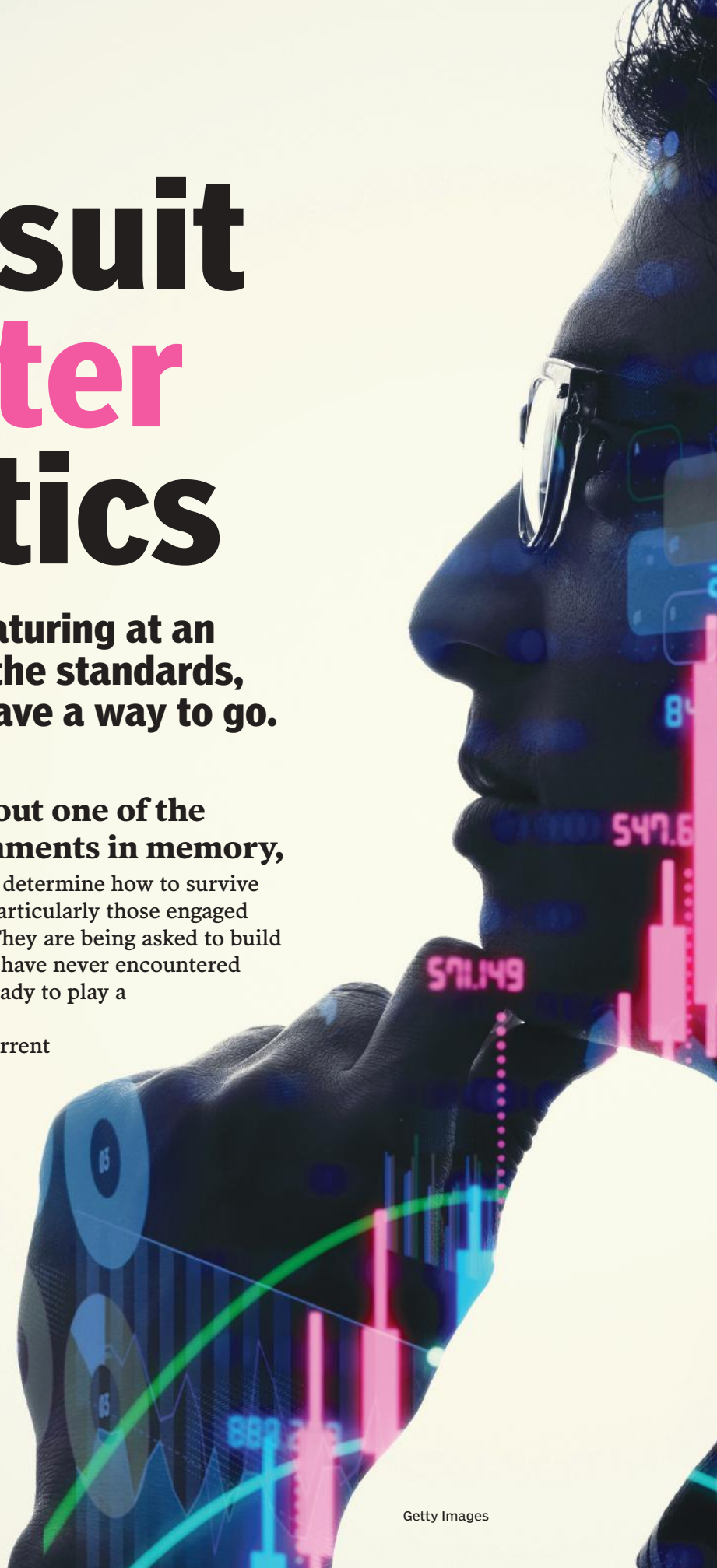
Finance analytics is maturing at an accelerated pace, but the standards, tools, and talent still have a way to go.

COVID-19 has brought about one of the strangest business environments in memory,

and more than ever leaders need data to determine how to survive it. It has pushed finance professionals, particularly those engaged in finance analytics, into the limelight. They are being asked to build forecasts and models for situations they have never encountered (and never anticipated). So, is finance ready to play a starring role during a crisis once again?

APQC conducted research into the current state and success drivers of finance analytics just before the true impact of the pandemic was evident. The study showed that for some companies finance analytics may play a prominent role in outlasting the accompanying recession, but for others it will be a conspicuous Achilles heel.

**By Rachele
Collins, Ph.D.
and Mercy
Harper, Ph.D.**





In Pursuit of Better Analytics

Finance analytics is the process of searching for and gathering meaningful insights from financial data, often in combination with other business data, to inform decision-making.

We know that strong finance analytics can positively impact a range of business outcomes: risk mitigation, customer satisfaction, and bottom-line results among them. Moreover, analytics is the lever by which finance can distinguish itself as a valued business partner to the organization. When finance has data-based insights at the ready, senior leaders come knocking.

Overall, the APQC research showed that finance analytics is maturing at an accelerated pace. At this point, those organizations new to the game are in the minority: Half of the 200 finance executives surveyed have been conducting analytics in finance for more than 10 years, and 68% have been doing analytics since at least 2014. A majority of the organizations have also increased investment in finance analytics over the past three years.

Still, questions remain. Have finance analytics programs matured quickly enough to meet this moment? Are organizations' data accurate and easily accessible to those who need it? Do organizations have talent capable of performing top-notch analyses? Have finance organizations moved beyond spreadsheets and embraced leading-edge tools? APQC dug into these questions as we examined the current state and success drivers of finance analytics.

CURRENT STATE

Structure. Most finance analytics is delivered in either a centralized or hybrid model. The hybrid model leverages a centralized governance team or center of excellence (COE) combined with decentralized teams embedded in the business units. Only 18% of organizations have a fully decentralized structure (and a lonely few, just 4%, have no formal structure at all). That reflects the growing maturity of finance analytics.

Centralized governance provides strategic alignment, accountability, and consistent communication and implementation planning across the enterprise. One example of the benefits of centralization comes from Johnson & Johnson's FP&A COE. J&J's COE has successfully standardized finance processes, tools, and data warehousing. This setup allowed it to move faster in the integration of leading-edge technologies and approaches, such as predictive P&L

"In an ideal world, finance analytics should cut across all functions of the business, because finance sits at the center of the data and the business."

—**Scott Wallace**, Senior Director of Advisory Services, eCapital Advisors

analytics and cognitive services (a set of machine learning algorithms developed to solve problems in the field of artificial intelligence).

Most organizations (76%) engage in a low level of outsourcing for finance analytics, which APQC defines as outsourcing 20% of tasks or less. Today, CFOs are probably quite glad they kept outsourcing of analytics to a minimum—that's one coronavirus-related disruption they avoided.

But there are also more long-term reasons why finance analytics teams don't typically use much outsourcing. For one, the technology tools like robotic process automation (RPA) can handle the transactional tasks outsourcers used to. Two, keeping finance analytics skills and knowledge in-house can promote a culture of analytics and data-based decision making across the organization. J&J's FP&A COE

Case Study: Cementos Argos

A Colombian conglomerate invests in analytics expertise and tools.

- To gain competitive advantage and support better decision-making, Colombian cement manufacturer Cementos Argos set up a dedicated center for business analytics. The organization invested in



top talent for the center, which includes both business analytics and data science teams (both of which have individuals with advanced degrees). With its combination of

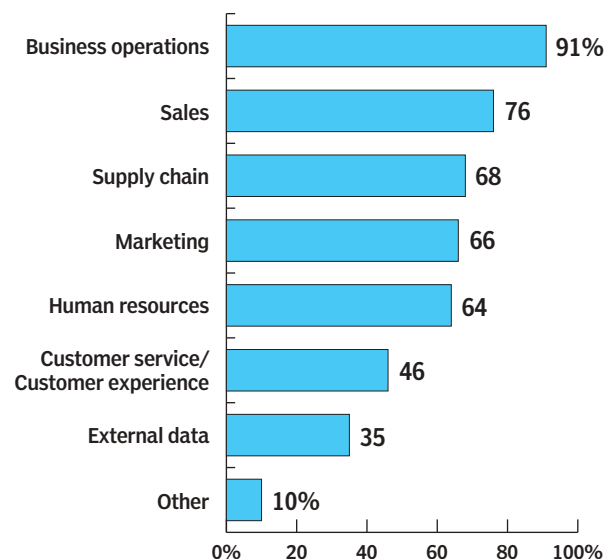
technical expertise and business acumen, the center has standardized and streamlined key finance processes, improved the governance and accessibility of organizational data, applied big data capabilities through Microsoft's Azure and Power BI, reduced costs, and developed tools that provide deeper insight into customer behavior and profitability.

For Cementos Argos, housing this powerful group within finance was a no-brainer.

"In finance, most of the decisions are made using data. We wanted to be able to dig into that data and use more advanced tools to get better information, which will ultimately support better decisions," said Carlos Angarita, senior director of corporate finance.

Which type of data do you leverage outside of finance for data analytics?

External data being used included industry, competitor, and market trends and benchmarks.



Source: APQC survey of 200 finance professionals

for example, serves as a “talent incubator” that provides training and development opportunities for finance professionals across the company.

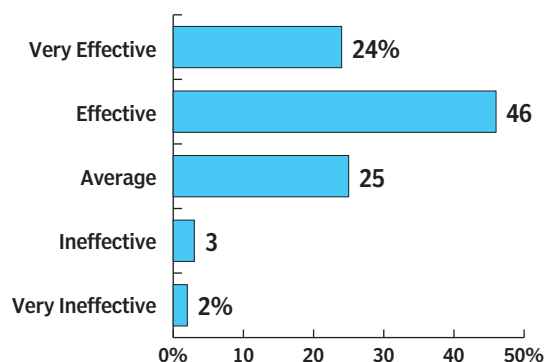
Practices. As Scott Wallace of eCapital Advisors told APQC, “In an ideal world, finance analytics should cut across all functions of the business, because finance sits at the center of the data and the business.” The good news is, we’re getting there. APQC found that a vast majority (97%) of finance analytics programs incorporate non-financial data into their analyses, most commonly data from operations, sales, and supply chains. About one-third also leverage external data on industry, competitors, market trends, and benchmarks.

However, finance analytics programs have some room to grow when it comes to how they analyze all of this data. Only about one-third of survey respondents said they use the most advanced form of analytics, prescriptive analytics, for most major finance processes. (See “Progressing in Analytics,” on page 32.) The most prominent application of advanced analytics occurs in the area of internal controls. A little more than 40% of respondents use prescriptive analysis to identify outliers and prevent fraud. Forecasting is another area suitable for advanced forms of analytics. APQC found that 73% of finance executives said their analytics programs applied predictive analytics.

Prescriptive analytics offers big benefits that many organizations are missing out on. For example, at a global tech company (which participated in a blinded case study with APQC and the Association for Financial Professionals),

How would you rate the overall effectiveness of your organization’s finance analytics efforts?

Only one-quarter of respondents scored their analytics programs as “very effective.”



Source: APQC survey of 200 finance professionals

Standardization is one of the keys to successful analytics—without it, an organization will never really know if it’s comparing apples to apples.

machine learning plays a central role in forecasting. FP&A professionals build algorithms directly into a machine learning engine that can be trained for a variety of purposes. It can do regression analysis for forecasting, budgeting, and workforce needs. This same tool can also use classification to look for patterns. For example, it helps the organization

find new customers for a product based on their existing profiles. It can also perform risk management by mastering the characteristics of fraudulent transactions.

Tools. When it comes to technology, Excel is still very prevalent—97% of those surveyed said it’s one of their primary tools for finance analytics. Most (73%) also leverage the finance/accounting modules of their enterprise resource planning systems. A substantial number (48%) have developed their own in-house tools for finance analytics, while 39% use off-the-shelf analytics software. Beyond this, the picture starts to get more complex. In addition to statistical packages like SAS and SPSS—used by 21% of those surveyed—there are a wide variety of visualization tools, business intelligence tools, Excel add-ons, integration tools, and programming languages being deployed.

The good news is that for those looking to go beyond Excel, there are many new tools and technologies that are more accessible and affordable than ever. Vendors are increasingly integrating sophisticated analytics capabilities into their most popular products. The bad news? Some finance analytics teams may be hard-pressed to choose the right tool for the job. In addition, organizations need to get

In Pursuit of Better Analytics

both their people and their data ready to make the most of these leading-edge tools.

FROM GOOD TO GREAT

The research showed that finance analytics programs are growing stronger, but many are struggling to make the leap from “good” to “great.” Overall, 70% of the finance executives surveyed rated their finance analytics approach “effective” or “average,” but only 24% rated it “very effective.” APQC identified key practices in three areas—around data, talent, and technology—that survey participants indicated drive the success of very effective finance analytics programs. If your organization does not already have these practices in place, consider adding them to put your organization on the path to great.

Data. Ensure your data is clean and clear. Dirty data is worse than useless; it’s dangerous. IBM estimated that poor-quality data costs the U.S. economy \$3.1 trillion yearly. Bad data also slows employee productivity and encourages executives to rely on intuition and instinct.

APQC’s research showed that very effective finance teams are highly focused on data standardization, quality, and accessibility.

Standardization is one of the keys to successful analytics—without it, an organization will never really know if



“There’s often a gap between having a data science degree and knowing how to apply it in the real world.”

—Beth Lahaie, Program Director of Divergence Academy, a data science-focused career college

it’s comparing apples to apples. Consider this anecdote shared by Armeta Analytics’ managing director Jim Rushton: The owner of several gas stations wanted to see sales-per-pump across different locations. But what, exactly, constituted a pump? Was each of the fuel nozzles a pump? Was each fueling station a pump? Was each side of a fueling station a pump? If an organization does not clarify terms, it cannot properly gather and compare data.

Cleaning up an organization’s data also means tidying up and maintaining the integrity of key tools, such as the chart of accounts (COA). Messy COAs cause all kinds of problems, from increasing process costs to causing difficulties in reconciliations and reporting. They can be a major roadblock in the adoption

of new systems and add-on technology tools.

Most organizations are great at adding new accounts to the COA, but they need to be more proactive in removing inactive accounts on a periodic (at least annual) basis. Accounts with little or no balance are often a sign that reduction and simplification are in order.

Talent. Invest in your people. APQC’s research showed that investing in technical analytics expertise pays off. We identified a statistically significant relationship between statistics skills and statistical software package knowledge and overall effectiveness.

However, recruiting talent is not just finding people with the most impressive resumes. Growing your people is also important. Analytics specialists need to be provided with opportunities to continuously refine and expand their knowledge. They want to learn not only new statistical methods, but also statistical software packages like SPSS and R, visualization tools like Tableau and Power BI, and programming languages like Python and Visual Basic. Many also need to be presented with stretch assignments that further their understanding of the business.

“There’s often a gap between having a data science degree and knowing how to apply it in the real world,” said Beth Lahaie, program director of Divergence Academy, a data science-focused career college.

Leading finance analytics programs partner with human resources to develop competency models, formal in-house trainings, and structured stretch assignments. Because they want their teams to receive the best education, they’re also not shy to invest in external training.

APQC identified a statistically significant relationship

Progressing in Analytics

Organizations vary in how sophisticated they are in their use of analytics.

- **Descriptive analytics** uses business intelligence combined with existing data to provide a vision of what’s currently happening around the business. Common statistical methods for descriptive analytics include mean, median, mode, frequency, distribution of discrete data points, and percentile rankings.
- **Predictive analytics** uses historical data and algorithms to predict outcomes of various “what-if” scenarios to help predict future events or trends. Forecasts and statistical models are used in this form of analytics to judge and provide recommendations about what could occur.
- **Prescriptive analytics** uses optimization or embedded decision rules to determine what should be done in a certain situation. This form of analytics is the most advanced, as it uses insights gleaned from predictive analysis to recommend business decisions or actions that are likely to produce a specific result given particular variables, inputs, and objectives.

between reimbursement for external or university coursework and the overall effectiveness of efforts. Many institutions of higher education, including community and career colleges, offer analytics programs and courses that can accommodate the schedules and learning needs of working professionals.

Technology. Explore new tools. Excel is great—and spreadsheet wizards know how to push it to its limits—but there's a lot of emerging tech out there that some analytics teams are using to pull ahead of the pack. As Jay Giannantonio, ERM advisory principal and senior project manager of Column5 Consulting, said, "Let's face it: Excel is the tool of finance and accounting. No tool is more widely used ... but you need tools beyond Excel to go into your ERP systems and combine that data with what's in your organization's customer relationship management and manufacturing requirements planning [systems] and tie it all together."

Action Points

Three things to keep in mind when attempting to launch or improve your finance analytics program.

- If you feel your organization is behind the eight ball, start with its data. Cleaning up messy data (and messy data collection processes) isn't easy—in fact, it remains one of the biggest challenges finance functions face. But the best tools and biggest brains won't be able to do much analysis without at least some clean and standardized data.

- When it comes to talent, think creatively. Securing external talent can be pricey (and sometimes, it's worth it). But remember that all finance professionals are numbers people at their core. If you take a finance person with strong knowledge of the business and train them in analytics, you may get a win-win-win: the organization spends less money acquiring talent and finance shows it's a place where employees can learn and grow. The employee also gets the opportunity to join an increasingly in-demand field.

- Ensure that you are maxing out the full capability of existing tools and technologies already in-house. If needed, investigate and pilot new tools and technologies. Many new tools are affordable to organizations of all sizes. Remember, a key satisfier for finance analytics talent is having the tools that they need to do their job well. Ultimately, that means helping the business make more impactful and informed decisions.

About APQC's Research

- APQC surveyed 200 finance professionals to understand the reporting structures; talent practices; tools and techniques; and outputs of finance analytics teams. The survey population was highly diverse and included respondents from across industries and global regions. A majority of survey participants represented organizations with \$1 billion or more in annual revenue.

"Let's face it: Excel is the tool of finance and accounting. No tool is more widely used ... but you need tools beyond Excel to go into your ERP systems ... and tie it all together."

—Jay Giannantonio, Principal and Senior Project Manager, Column5 Consulting

In particular, APQC found that RPA and interactive self-service reporting tools are associated with superior effectiveness. RPA is a huge factor across finance. A majority of finance functions already use it to streamline transactional processes such as auditing expense reports and processing vendor payments. But RPA doesn't just save time—it also enables analysis of

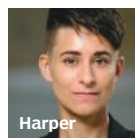
massive amounts of business data. It can help finance analytics teams integrate large datasets from other functions (e.g., operations, sales, supply chain) and from external sources into financial planning, budgeting, and forecasting.

Interactive self-service and querying capabilities allow users across the organization to access data when and where they need it for decision-making. Leaders can explore financial results, visualize data in formats they're comfortable consuming, apply restraints relevant to their goals, and dig into the drivers of results and variances. Self-service tools also ensure everyone's looking at the same single source of truth. Thus, user experience and governance must be taken into consideration when adopting these tools.

While finance may have been late to the game in leveraging and taking ownership of analytics, more and more organizations are making progress. They are adding the talent and tools necessary to generate analytical insights that drive decision-making in and well beyond the function. **CEO**



Collins



Harper

As principal research lead, Rachele Collins, Ph.D., is responsible for APQC's best practices research in financial management. As an analyst on APQC's

research team, Mercy Harper, Ph.D., is responsible for writing best practices and benchmarking reports.





ANATOMY OF A SHORT ATTACK

THE COVID-19 PANDEMIC HAS CREATED AN OPPORTUNITY FOR SHORT- SELLERS TO TAKE AIM.

THE CONDITIONS OF the COVID-19 pandemic have created a perfect storm for companies that are subject to an attack by short-sellers.

When a lengthy “short” report is published, a company’s stock price will often experience a near-term drop as momentum traders react to the allegations. Billions of dollars can hang in the balance as investors sift through a densely written report posted on a website. In some cases, the publication will set off an extended battle in the media between corporate executives, short-sellers, and large investors that can last for weeks or even months.

Equally important to the company’s ultimate fate is the drama playing out “behind the curtains.” Actors including internal auditors, independent accounting firms, audit committees, regulators, and large shareholders seek to assess the veracity of the charges and see if they missed something of significant magnitude. The results of this frenzy of activity will often determine if the attack ends up as a minor footnote or a company- and career-ending debacle.

The current economic and market conditions may make companies especially vulnerable. Market volatility is exceptionally high. Visibility into many companies’ financial outlooks is poor. Communication between management and board members regarding sensitive issues is challenging. And auditors face difficulties in performing work on the ground when many offices and facilities are shuttered.

**By
Drew
Bernstein**

For these reasons, it is more important than ever that both companies and investors understand the dynam-

ics when a short-seller drops an apparent “bombshell” report on the market, often at the most inconvenient time.

Assessing the Credibility

The first issue to consider is: what’s the story? Short-sellers may claim that a stock is doomed to fail because of some emerging competitive threat, changing consumer preferences, or dwindling reserves of cash. The accuracy of these predictions will become manifest in time but do not speak to the integrity of the financials.

Other reports assert that the reported financials are fundamentally inaccurate. Revenues have been fabricated, profits inflated, and assets do not exist. The authors may even accuse senior management of outright fraud and posit that the equity has no value.

When short-sellers level these kinds of inflammatory charges against a company, a range of parties involved must assess their credibility. Who are the authors of the report, and what is their track record? What evidence do they present to support their claims? Was there a corporate insider who provided or validated vital information?

The parties best positioned to know if allegations are accurate are usually members of senior management. If a report contains a fundamental misunderstanding of a company’s business model or accounting policies, management should be able to quickly defang the argument and substantiate the scale of the business. A swift public statement will be followed by calls to the largest shareholders to defuse concerns and answer questions.

Assuming management can convince these large investors, the investors may take the opportunity to add to their positions at a low-

er cost, which can stabilize the share price and even pressure short-sellers to cover their positions as the stock price starts to rise.

At the other extreme, there are times when the evidence supplied in a short report is so unassailable that large holders abandon the stock, the price plummets, and the stock market intervenes to halt trading. In these cases, the company will rarely be able to preserve its listing when the dust settles. Years of bitter litigation often follow over the assets that remain.

Most cases fall somewhere in between. The arguments in a lengthy short report are enough to raise substantial doubt, but are not entirely conclusive. The company may issue a terse dismissal of the claims. But in the background, a sequence of events begins that will determine the outcome of the drama.

Moving Up The Chain

If the scope of allegations is limited to a particular business segment, senior management will task the company's internal audit team to investigate if transactions were improperly recorded. Even if this investigation ultimately leads to a restatement of prior financial results, the consequences will not be fatal. But if the alleged conduct is systemic or if it appears that senior management was potentially involved, a quiet internal resolution is usually off the table.

Next to management, a company's public accounting firm should be best positioned to assess the information contained in a densely researched short-seller report.

Well-funded short-sellers sometimes claim to employ techniques well beyond the toolbox available to an auditor, including recording months of video, collecting footage from drones or satellites, and sending hundreds of observers into the field. Most audit firms are unlikely to engage directly with the report's author for liability reasons. But if the report offers substantial evidence of overstated revenues or misappropriated assets, the outside auditor may examine the prior scope of its audit work.

A senior audit partner at one of the Big Four firms in China explained: "Hindsight is 20/20. Sometimes you may go back and review all of the confirmations to see if there was any potential flaw. Could they have been falsified in any way?"

If the annual audit is in progress, the auditor may choose to expand the scope of the testing or employ enhanced audit procedures. "This type of report can definitely lead us to do more work, to do more vigorous testing of revenues, to see if there is any round-trip booking. There is a heightened level

ANATOMY OF A SHORT ATTACK

of caution about management representations," the senior partner said.

If the auditor discovers evidence of concerns that rise to the level of materiality, they need to "assess very quickly, what is management's attitude towards this information? What are they going to do about it? Who's involved?" said Francine McKenna, a former director at a Big Four firm who writes extensively about the industry. "The auditor has to make sure that any significant or material allegations are raised to the level of the board, to the audit committee. ... They're looking at whether or not they need to hire a law firm and a forensic accounting firm to do an investigation."

Independent Investigation

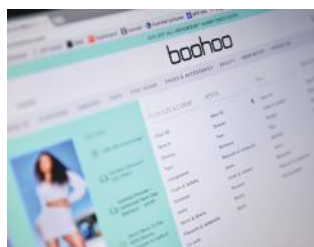
At this point, management, the audit committee, and the external auditors are coming under intensifying pressure. The company may be receiving inquiries from both the Securities and Exchange Commission and the stock market where it is listed. Management is aware that it is unlikely to get the auditors to sign off on its financial statements without a thorough independent investigation. Audit committee members might begin to consider their exposure and reputational damage if a fraud occurred under their watch, even if they were unaware of it.

The independent investigation will typically be conducted by a law firm that, in turn, retains a forensic accounting firm, working under the direction of the audit committee. These investigations are incredibly uncomfortable for all parties; they depend upon management's cooperation for their success, but they are simultaneously seeking to determine to what extent top leaders were aware of or orchestrated deceptive transactions. The parameters and timeframes of these investigations are carefully negotiated in advance. Even so, they will typically cause the company to incur millions of dollars in fees to lawyers and consultants.

While this process is going on, the company will be constrained in making any comments on allegations of wrongdoing, even as short-sellers may continue to drip additional adverse reports on the market as they seek to erode support for the stock.

Upon the launch of an independent investigation, the audit firm's offices of the general counsel, risk management, and audit quality assurance will carefully scrutinize the prior work that was done by the local team and try to assess the fallout. Audit partners need to demonstrate that they adhered to audit standards in their work and were not negligent. Every prior decision gets placed under a microscope. The Big Four auditors typically set up their local member firms to "ring-fence" legal liability, but they are loath to see their brands tarnished.

The effectiveness of an independent investigation depends on the ability of the audit committee to guide the process to a decisive conclusion. In some cases, an investigation will thoroughly refute the principal claims of a short report. Other times, the investigation discovers that prior



Short-seller ShadowFall asserted that U.K.-based online retailer Boohoo overstated its free cash flow by 65% in 2020. Boohoo called the report "without merit."

financial statements are unreliable and assigns responsibility to the executives involved. But often, the results are murky, leaving auditors in an awkward position.

The senior audit partner, who has reviewed the fruits of several such investigations, said: "Often these reports are not conclusive. The company may be able to get back on its feet and move on to some extent. But you would never be super-comfortable that these guys did not lie or didn't do anything wrong. That is the hard part."

The company will often issue a press release summarizing the findings of the investigation, but the report itself is not made public. And the consequences are far from over.

The Fallout

If the investigation concludes that a significant restatement of prior financial results is required, this can have a far more dramatic impact on the share price and corporate reputation than the initial short report. Significant shareholders will exit the stock. The company will be locked out of the capital markets. Law firms will announce a parade of class-action suits. Customers and partners may doubt the sustainability of the business.

To preserve the company's listing, stock market officials will want to see a good-faith plan to complete the required restatements, regain compliance with all listing requirements, and create a more robust governance and internal control environment going forward. In some cases, regulators will also expect changes to the existing management and board composition as a condition of remaining listed.

The company is unlikely to retain its existing audit firm, whose confidence in management has been severely eroded and who now views the client as a reputational liability. While the auditor may not resign outright, it will set a series of increasingly unachievable requirements to sign-off on financial statements. The company will need a new auditor to re-audit multiple years of financials adjusted to reflect the issues unearthed during the independent investigation.

The road to recovery from such an episode is long and perilous. The board needs to balance demonstrating accountability with preserving the critical talent and relationships that allowed the company to thrive in the first place. Management must keep the underlying business on the rails while navigating restatements, investigations, lawsuits, and media scrutiny. Once burned, investors have deep reserves of skepticism. But if they see that the business is resilient and that management is providing reliable disclosure, then there is an opportunity to rebuild a following over time.

If the reconfigured leadership team is not willing or able to implement dramatically better reporting and governance practices, the prognosis for recovery is poor. It may be that exiting the public markets through a going-private transaction is the best available option. If the fundamentals of business were already deteriorating or the liquidity position is weak, then the company's very survival may be in ques-

Keep in Mind

- In some cases, **the publication of a short-seller's report** will set off an extended battle in the media between corporate executives, short-sellers, and large investors that can last for weeks or even months.
- **Market volatility, poor visibility into many companies' financial outlooks**, communication issues between management and board members on sensitive topics, and auditors facing difficulties in performing work on the ground make it a time ripe for short-seller attacks.
- When short-sellers level inflammatory charges against **a company, a range of parties involved must assess their credibility**. Who are the authors of the report, and what is their track record? What evidence do they present to support their claims? Was there a corporate insider who provided vital information?
- Next to management, **a company's public accounting firm** should be best positioned to assess the information contained in a densely researched short report.
- **Independent investigations, if needed**, will typically be conducted by a law firm that, in turn, retains a forensic accounting firm, working under the direction of the audit committee.
- **If an investigation finds problems, the company is unlikely to retain its auditor**. While the auditor may not resign outright, it will set a series of increasingly unachievable requirements to sign-off on financial statements. The company will need to retain a new auditor to re-audit multiple years of financials adjusted to reflect all the issues unearthed during the independent investigation.

tion. Thousands of jobs may disappear. The entire direction of an industry may change. All of these consequences flow from the publication of a dense, single-spaced report on an obscure financial website.

As long as there are profits to be made, short-sellers will continue to seek out opportunities to publish the next incendiary report. To avoid this fate, management and boards of public companies need to continuously ask themselves: Are there any weaknesses in how we report our financial results? Are there any management decisions that could be construed as contrary to shareholder interests? Is how we describe our business sufficiently clear to avoid misunderstandings?

The best strategy for dealing with short sellers is to take pains to avoid placing your company under their microscopes in the first place. **CFO**

Drew Bernstein is Co-chairman of Marcum Bernstein & Pinchuk (MarcumBP.)



Safeguarding Working Capital

A disrupted economy will make it harder to manage receivables, payables, and inventory with efficiency. **By Ramona Dzinkowski**

In trying times, the old adage “cash is king” is never truer. For CFOs, ensuring their organizations’ working capital management strategies and processes are best-in-class is again a high priority. After all, tighter working capital performance means well-timed inflows and outflows of cash, essential for companies operating on a small cushion of safety.

Heading into the COVID-19-induced recession, though, working capital was not as optimized for many companies as it could have been. According to the 2020 *CFO/The Hackett Group Working Capital Scorecard*, the 1,000 largest U.S. companies had lots of room for improvement—nearly \$1.3 trillion in capital needlessly tied up in receivables, payables, and inventory, about 10% of their combined 2019 revenue.

That’s good and bad news for 2020. Good because there’s room to raise cash levels and manage cash flows better simply from process improvements; bad because sloppy working capital practices may be hard to clean up, especially when management is focused on the business’s pure survival. The upshot? This year could be the most challenging on the working capital front for quite some time, as suppliers battle to get paid, customers delay remitting invoices, and past inventory methods become outdated.

The Data Says ...

The *CFO/Hackett Group Working Capital Scorecard*, run annually for two decades, calculates the working capital performance of the largest nonfinancial companies based in the United States. Data is pulled from companies’

latest publicly available annual financial statements.

It’s somewhat understandable that finance departments weren’t too worried about working capital metrics in 2019. Cash on hand for the 1,000 companies rose 12%, the highest amount in 10 years, and debt increased similarly. Historically low interest rates made it easy to finance operations if cash didn’t flow smoothly.

Metrics like the cash conversion cycle (days sales outstanding plus days inventory outstanding minus days payables outstanding) became not so important, at least in some organizations. The CCC for the 1,000 companies crept up 2%, to 33.4 days.

Inventory and payables performance caused the lengthening of CCCs. Days sales outstanding (DSO) rose to 38.4 days from 37.6 days. Days inventory outstanding (DIO, or days inventory on hand) also bumped up, to 50.6 days from 50. (See “How Working Capital Works,” on page 42, on how the metrics are calculated.)

In contrast, companies overall took marginally longer to pay their invoices (a positive for the CCC metric). The increase in days payables outstanding to 55.5 was part of a multi-year trend. Overall DPO of the companies in the scorecard is 10 days higher than it was a decade ago.

Financing’s Effects

The slippage in working capital efficiency in 2019 had other contributing factors.

Supply chain financing (SCF), in particular, was a double-edged sword for working capital performance. Many large companies used it to lengthen payment terms, so it also explains slower collections happening at their suppliers, says Craig Bailey, associate principal at The



The 2020 Working Capital Scorecard

Hackett Group. (SCF allows a supplier to collect a percentage of a receivable from a bank, rather than having to wait the full cycle to get paid by, typically, a larger buyer.)

“A lot of organizations (buyers) are using these

programs to improve their DPO metric,” Bailey says, “And it’s naturally impacting the DSO. DSO is now the highest it’s been in 10 years—extended payment terms are becoming the norm.”

Companies relied heavily in 2019 on leveraging external financing programs rather than doing the heavy lifting of structural process redesign. That was in part due to a massive push by the financial industry to sell these products and because of robust merger and acquisition activity, Bailey says.

“Just the availability of cheap cash has meant there hasn’t been that burning platform to assess the organization,” Bailey says. “Instead, management is saying there’s cash out there and we can use these financial vehicles to improve our metrics.”

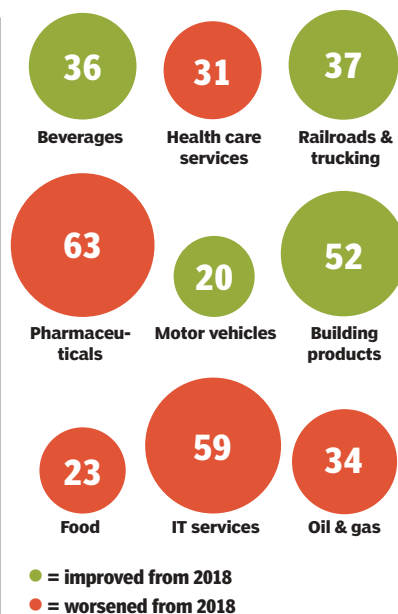
At the same time, M&A activity across industries has left organizations with multiple and disparate enterprise resource planning systems. “Consequently, companies are not looking at their own in-house processing.”

In the case of inventory management, that same M&A activity, combined with the global nature of supply chains, has created a higher level of risk and complexity. That makes it difficult for companies to improve their inventory levels on-hand, says Gerhard Urbasch, a senior director at The Hackett Group.

“With hundreds of sites, factories, and warehouses, it’s really hard to have a unified source of data to make optimal inventory decisions,” he says. What companies need to do is invest

Sales Into Cash

The average number of days to collect payment after a sale varied widely by industry.



Source: CFO/The Hackett Group 2020 Working Capital Scorecard

By the Numbers

26.8

Number of days inventory on-hand for top performers (vs. 59.3 for median performers)

12%

Year-over-year increase in cash on hand for the 1,000 companies

\$6.5T

Total debt load, up 12%

5%

Increase in net working capital

-1.1%

Decline in operating cash flow

88%

Percentage of companies that improved their cash conversion cycle every year during the last three years

Source: CFO/The Hackett Group 2020 Working Capital Scorecard, survey of 1,000 largest nonfinancial companies

in digital transformation to create visibility of their inventory, Urbasch adds, which requires substantial investment in technology and uniform processes.

Over the years, the DIO numbers have been some of the most stubborn in the scorecard. Inventory on-hand jumped nearly 5 days in 2015 and has remained near the 50-day level since.

Fast Forward

Fast-forward to mid 2020, the international COVID-19 crisis and the resulting economic fall-out have raised the importance of process standardization and optimization.

The biggest opportunities for improvement in working capital performance for 2020 are receivables and inventory, but the slowdown in the global economy and the increase in bankruptcies also will force wider changes.

For example, Hackett’s Bailey expects DPOs, which have been pushed near the limit the last few years, to decline, “reversing a 10-year trend.”



“With hundreds of sites, factories and warehouses,

it’s really hard to have a unified source of data to make optimal inventory decisions.”

—Gerhard Urbasch, senior director, The Hackett Group

“Every organization is being even more affected by the resilience (or lack of) of their suppliers. We would anticipate, for the first time in recent memory, that some organizations will shorten payment terms if they believe their suppliers need support,” he says

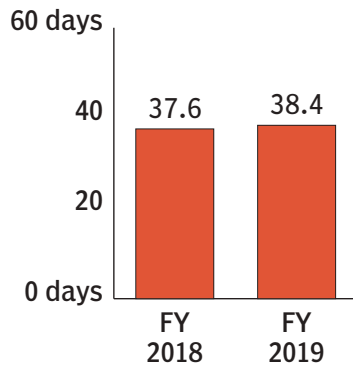
“They may also look at discounting [paying earlier in exchange for a discount on the invoice] to improve supplier liquidity.”

Efficiency Decline

Cash conversion speed slipped marginally in 2019.

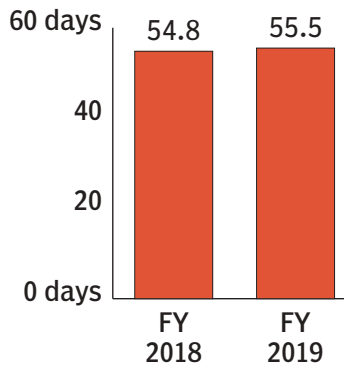
Collection of receivables slowed somewhat.

Days sales outstanding



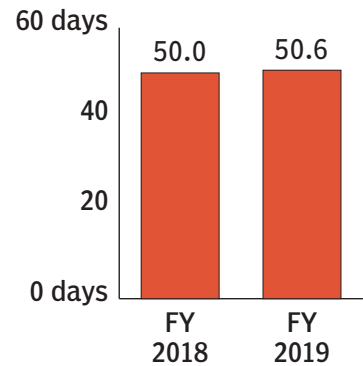
Payment terms stretched slightly longer.

Days payables outstanding



But companies are still not optimizing inventory.

Days inventory outstanding



Source: CFO/The Hackett Group 2020 Working Capital Scorecard

In a recessionary economy in particular, buyers need to be careful not to further destabilize supply, says Shawn Townsend, director of strategy and operations at Hackett.

“Now that there’s a bigger risk of pushing the supply base into bankruptcy, destabilizing the supply chain is probably not a good idea for your overall business model,” Townsend says.

Some of this, of course, requires improved relations between customers and suppliers. “The COVID 19 pandemic has brought an increased need for communication, for collaboration, for being more transparent and open about the financial health across the extended supply chain,” Bailey says.

Another change will be how CFOs think about cash flows and cash levels and the priority of such information. More companies are monitoring cash closely on a daily basis, says Bailey. “Organizations are rationalizing their reporting to focus on the key reports that matter and bring those up to the C-suite level.”

Some companies are also seeing a revival of “cash culture.” Increasingly, management is aware that working capital is a cross-functional account-



“We would anticipate, for the first time in recent memory, that some organizations will shorten payment terms if they believe their suppliers need support.”

—Craig Bailey, associate principal, The Hackett Group

ability, Bailey notes. “Organizations are saying, ‘We can’t focus on working capital in finance and treasury if, for example, the sales team is trading terms for revenue in the field; if the procurement team is trading terms for cost; or if the inventory and the supply chain teams are buffering stocks against uncertainty,’” he says.

Not only are CFOs tracking whether these practices are occurring, they are also putting more pressure on sales, procurement, and supply to develop their own action plans and targets, as well as to model different performance scenarios. “Scenarios are

being continuously adjusted with the latest information—how those scenarios will impact cash flow and how that ties into DPO and DIO,” says Bailey.

Resilience Questions

Integrated business planning, as well as operations and inventory planning, have never been more important, Urbasch observes.

For example, in the case of days inventory on-hand, traditionally companies performed inventory segmentation based on revenue or contribution margin, variability of demand, or, in some cases, the variability of supply.

“What’s really important is to include another variable—the business resilience of suppliers,” Urbasch says. Finance must evaluate the financial health across the extended supply chain to see where the risks are, and to discover when to support existing suppliers or re-evaluate the supply base. These topics were on the agenda previously, he adds, but weren’t at the top. “Now they’re critical priorities for the CFO,” he says.

The same need to assess business resilience applies to evaluating customers, says Todd Glassmaker,



director, strategy and business transformation, at The Hackett Group.

When examining receivables trends, companies will need a better view into their customers' risk exposures and how they could potentially im-

pact the timing and amount of their future revenue. "We're seeing a need and a desire to have an understanding of customers' credit profiles and their ability to pay outstanding receivables," says Glassmaker.

Management increasingly wants that information integrated into upfront sales tools, whether it be Salesforce or another customer relationship management platform, Glassmaker adds.

Tech Drive

Technology advances will also drive the working capital agenda, says Townsend, especially in procure-to-pay (the process of process of requisitioning, purchasing, receiving, paying for and accounting for goods and services). Townsend expects the rate of adoption in that category to accelerate due to the COVID-19 crisis.

"Technology not only offers the op-

portunity to streamline processes, but to reduce cost and increase efficiency and effectiveness. It also offers real-time visibility into the overall supply chain and procure-to-pay performance. Right now, that is key for cash-flow forecasting," he adds.

Moreover, the relationship between the chief procurement officer and CFO may become more important, this year and in the long run, he notes. "People

have realized that increased collaboration between the CPO and CFO is key in ensuring that companies have a viable supply chain that is resilient and agile." When sales are hard to come by or slowing, the last thing a business wants to do is fail to meet a customer's order on-time.

That means more focus on demand planning (the process of forecasting, or predicting, the demand for products to ensure they can be delivered and satisfy customers).

"Organizations that may not have put a priority on this in the past because they were able to rely on inventory buffers. They are now tightening up in terms of identifying all sources of information available—data from inside the business and externally from the supply chain and from customers."

If finance departments handle this well, we should see shorter days inventory outstanding when the numbers for 2020 come out next year. Then again, finance has a lot to deal with this year. Inventory level worries may wind up on the back burner once again. **CFO**

To Maximize Working Capital Efficiency...

- Build a sense of **cross-functional ownership** by bringing teams together with a common objective and bring cash to the forefront of decision-making.
- Eliminate **internal barriers** of competing metrics that could be driving the wrong behaviors or taking focus away from cash.
- Get **accurate information internally**, and from suppliers and customers, as close to real-time as possible.
- Think about the **financial health of the supply base** and set the right payment terms for the right category of suppliers.
- Keep a **tight hold** on what **payment term extensions** the organization is willing to negotiate. Be sure that finance can calculate the impact to avoid unfortunate surprises.
- During this time of incredible disruption, take the opportunity to **reassess priorities**.

Source: The Hackett Group

How Working Capital Works

Days sales outstanding (DSO): $AR / (\text{total revenue} / 365)$

Year-end trade receivables net of allowance for doubtful accounts, divided by one day of revenue.

Days inventory outstanding (DIO): $\text{Inventory} / (\text{total COGS} / 365)$

Year-end inventory, divided by one day of cost of goods sold (COGS).

Days payables outstanding (DPO): $AP / (\text{total COGS} / 365)$

Year-end trade payables divided by one day of COGS.

Cash conversion cycle (CCC): $DSO + DIO - DPO$

Number of days for each indicator added up for the assets part of the balance sheet and subtracted for the liabilities.

Note: Some companies use revenue instead of cost of goods sold when calculating DPO and DIO. The Hackett Group's methodology uses COGS across the payables and inventory categories to reflect an accurate output.



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CFO Optimism Drops to 12-Year Low

The dramatic drop indicates that CFOs were surprised by the large and sudden effects of the coronavirus pandemic on business prospects. **By Lauren Muskett**

● U.S. CFO optimism dropped to a new all-time low
● due to the widespread and sudden effects of the coronavirus pandemic, according to the Duke University/CFO Global Business Outlook survey.

In the second half of March, the U.S. CFO optimism index fell to 42 (on a scale from 0 to 100), which reflects that CFO sentiment was as bleak as it was during the 2008 Great Recession.

"The optimism index was at 58 in the first half of March before plummeting to the low 40s in the second half of the month," said John Graham, a finance professor at Duke University's Fuqua School of Business. "The index has proven to be a good predictor of future GDP and unemployment, anticipating that the economy will perform as poorly in 2020 as it did during the Great Recession."

Such a large optimism index drop indicates that CFOs didn't anticipate the large and sudden effects the coronavirus pandemic would have on business prospects.

Before March 15, surveyed U.S. businesses said they planned to increase payrolls by more than 4% and



"Should more companies realize that they in fact face large financial risk due to the virus, hiring and spending numbers will get even worse."

—John Graham, professor, Duke's Fuqua School of Business

increase spending by nearly 5% over the next 12 months. But after March 15, they switched course for the coming year and said they now planned to reduce employment by 1.2% and cut spending by 1.4%.

"We have already seen a bigger jump in unemployment in the past three weeks than during the entire Great Recession, so there is good reason why optimism has fallen," said Fuqua finance professor Campbell Harvey in mid-April. "CFOs are fighting their own war for the survival of their companies."

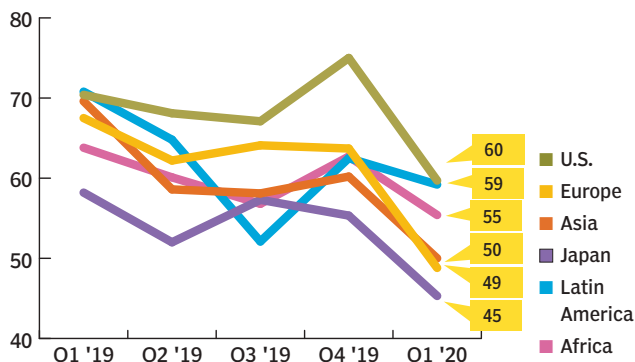
When CFOs were asked to report two forecasts of sales revenue—one being the best case estimate for revenue in the coming year and the second being revenue under very bad conditions—they predicted a 4% increase as the best case estimate and a 13.3% decrease under very bad conditions.

Finance chiefs expected to beat their very good scenario forecasts only 10% of the time. Before March 15, in a very good scenario, U.S. finance chiefs thought that sales revenue would grow 10% (median) in 2020. After March 15, they predicted a 5% growth in sales revenue in a very good scenario.

"Things could get worse," Graham said. "Even with the pessimism expressed during the second half of March, only about one-third of U.S. firms believed that they faced large financial risk due to COVID-19, while about half said they faced medium risk. Should more companies realize that they in fact face large financial risk due to the virus, hiring and spending numbers will get even worse."

Coronavirus Pandemic Causes Company Confidence to Plummet

Finance executives rate their optimism about their own companies' financial prospects.*



*On a scale of 0–100, with 0 being least optimistic

Global Pessimism

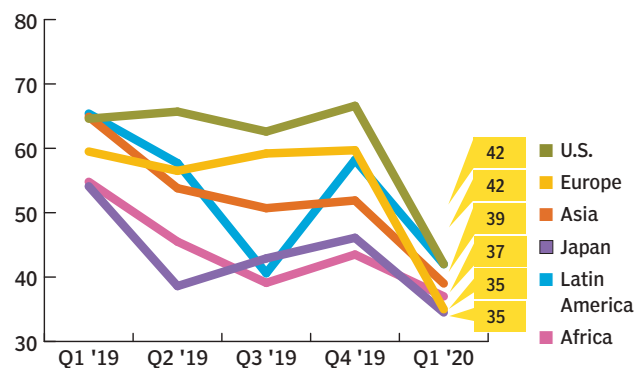
Starting in the second half of March, chief financial officers around the world were the most pessimistic they have ever been. The optimism index fell to or near all-time lows (index before March 15/after March 15). Europe declined to 50/42, Latin America dropped to 59/42, and Africa fell to 57/37. In Asia (44/39), optimism was already low before March 15, consistent with parts of Asia already feeling the effects of the coronavirus pandemic.

“Now, to be clear, we don’t expect economic activity to stay at this low level. We do expect a rebound,” said Graham. “But even with that rebound, we won’t get ourselves completely back above water over the 12 month period.”

The Duke University/CFO Global Business Outlook survey has been conducted for 96 consecutive quarters and spans the globe, making it the world’s longest-running and most comprehensive research on senior finance executives. The survey was conducted over six weeks from February 25 through April 3 and polled more than 1,200 finance executives. The results documented the weekly impact of COVID-19 on businesses around the world. **CFO**

CFO Optimism Drops to Great Recession Levels

After March 15, optimism fell to or near all-time lows globally as business plans wilted. *



*On a scale of 0-100, with 0 being least optimistic.

Source for all charts: Duke University/CFO Global Business Outlook Survey of finance and corporate executives. The survey concluded April 3 and generated responses from more than 1,200 CFOs, including nearly 500 in North America, 78 from Asia, 164 from Europe, 437 from Latin America, and 46 from Africa.

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Regaining Momentum in Cross-Border Operations

Finance executives are looking beyond the turmoil created by the coronavirus pandemic and toward economic recovery and growth. **By Keith Button**

- Will nothing derail U.S. companies' international expansion plans?

Apparently not, was the answer provided by January 2020 and April 2020 surveys by CFO Research and Vistra. The CEOs, CFOs, and other senior finance executives surveyed took a long view with their international operations strategies and cross-border merger and acquisition plans. They're seeing beyond the present moment toward economic recovery and organizational growth, and many of their pre-pandemic concerns, such as those related to supply chains, have only intensified during the crisis.

The January CFO Research/Vistra survey, conducted before the coronavirus pandemic was declared, asked 215 executives about international expansion and operations. The subsequent April survey by CFO Research polled 333 executives about their response to the coronavirus crisis.

Maintaining Momentum

A strong percentage of the executives in the April survey, 31%, said supply chain disruption was a major concern. That dovetailed with the January survey, which reflected a similar preoccupation with supply chain management. In that earlier survey, maintaining supply chains was the cross-border expense expected to increase the most dramatically in three to five years, as cited by 35% of the CFOs and other senior executives. And 22% of the respondents said they would update their supply chains in the next three to five years to address concerns about global expansion and operations.

On the subject of M&A, only 8% of the respondents in the April survey said they were delaying acquisitions or takeovers. That aligned with pre-pandemic survey results, which showed that nearly nine out of 10 executives were considering expanding into new markets, and 97% of their organizations were engaged in cross-border mergers and acquisitions.

While it remains to be seen if M&A will be a key driver of global expansion in the future, momentum had been building prior to the coronavirus crisis. The primary reason for cross-border M&A was to expand to new markets, as

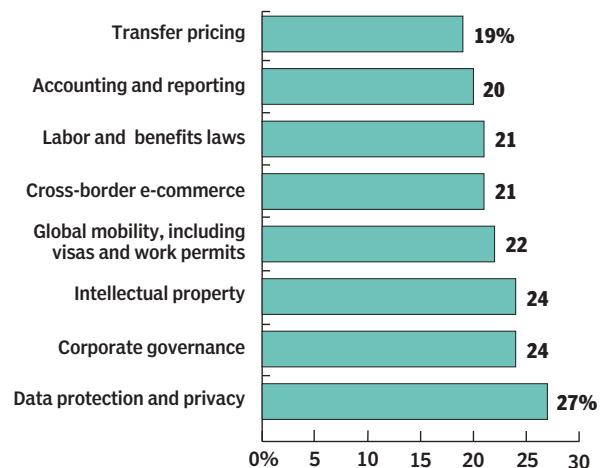
cited by six out of 10 executives in the earlier 2020 survey. A quarter of the survey respondents said their primary reason was to acquire new intellectual property and technologies.

The most important factor considered when selecting a target region for M&A was economic stability, said 36% of the executives in the January survey. That suggested the global economic uncertainty created by the pandemic could potentially slow cross-border M&A momentum worldwide, at least in the short term. Number two on the list of important M&A target-region factors was political stability, cited by 27% of respondents, followed by labor costs, cited by 24%.

The April survey asked executives about the short-term steps they were taking to survive the revenue and profit impacts from the coronavirus outbreak. The top response—from half of the executives—indicated that companies were delaying investments, showing they were more inclined to slightly alter their strategies than to abandon them altogether.

Data Protection and Privacy Lead Compliance Concerns

What kinds of compliance requirements are you most concerned about when operating or expanding globally?



Only 20% of the April survey respondents said they were shutting down some operations or idling business lines. This may be evidence of finance leaders wanting to maintain their global operations where possible. That finding was reinforced by the fact that only 2% of the executives reported their companies selling businesses or assets to raise cash.

Companies were on the lookout to promote efficiencies. The January survey found that 61% of respondents' companies were considering or engaged in legal entity rationalizations. Cost savings and tax-structure simplification were the primary reasons cited by executives for rationalizations. It's reasonable to assume that multinationals will continue to look to legal entity rationalizations in a post-pandemic global economy.

A Healthy Appetite

While it's too early to know how the coronavirus will affect the global business environment, the January 2020 survey of executives pointed to some interesting pre-pandemic trends. The survey showed a healthy appetite both for maintaining global operations and for international expansion. About half of the companies represented by the survey respondents operated in two to five countries outside the United States, and 30% operated in six or more countries. A stunning 87% were considering expanding into new markets.

The executives' answers about the countries they were targeting for expansion were illuminating. The United Kingdom was a target for 40% of the executives consid-



87%

Companies that were considering expanding into new markets before the COVID-19 outbreak

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ering expansion, China was for 24%, and Brazil and other Latin American countries were said to be a target by a combined 47% of the executives. The popularity of these countries and regions as expansion targets indicated that companies had particularly strong, long-view growth strategies that were not going to be disrupted by the newsworthy challenges of the moment, including Brexit and the U.S.-China trade war.

Respondents were also undeterred by longstanding economic and regulatory hurdles, such as those traditionally encountered by companies establishing businesses in Latin American countries.

While the survey showed a persistent appetite for international expansion, global political events were certainly affect-

ing corporate strategies. When asked specifically about how U.S.-China trade tensions and tariffs had affected their global expansion and operations strategies, only 25% of the executives said the situation had not affected their strategies. Yet 54% of the executives said they were considering expanding into China, despite the trade tensions and tariff battles.

Areas of Concern

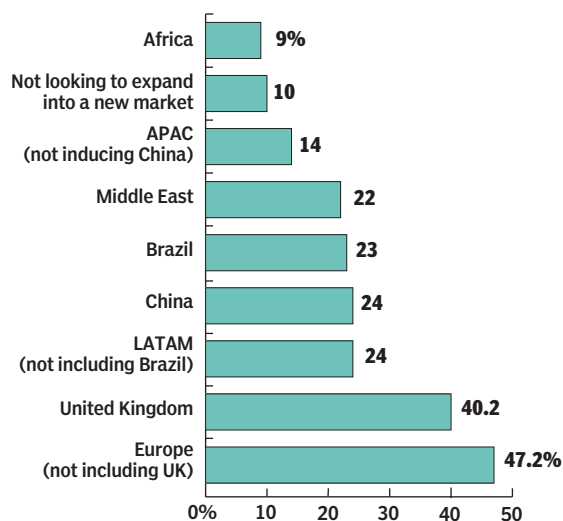
In the January survey, the top concern about global expansion and operations was in fact global economic uncertainty, acknowledged by 29% of the executives. That seems prescient now. The second concern was data protection challenges, cited by 26% of the respondents.

The January 2020 survey showed that executives' plans for dealing with their concerns about global expansion and operations over the next three to five years were diverse. Remarkably, the top solution was international expansion itself, at 27%.

CFOs and other senior finance executives of course face myriad regulatory issues tied to international operations. The January 2020 survey showed that the top-three compliance concerns for companies operating or expanding globally were data protection and privacy, corporate governance, and intellectual property, all named by about one out of every four executives. The January survey also revealed that economic substance laws (a tax issue) were a significant concern, with 78% of the executives saying that compliance in this area was "somewhat burdensome" to "very burdensome."

The April survey showed that regulatory challenges continued to be a major issue following the pandemic declaration, with 23% of the respondents citing government policy and legislative response to the coronavirus crisis as one of their most pressing concerns. **CFO**

Pre-pandemic Target Regions





Infectious Economy

The COVID-19 pandemic and the resulting stay-at-home orders threw the U.S. economy into a tailspin late in the first quarter. It wreaked havoc on households and businesses, putting an abrupt end to record-low unemployment and more than five straight years of quarterly GDP growth. Take our quiz to see how much you recall about the first months of the outbreak.

- 1 What percentage of outstanding U.S. home loans were in forbearance (the buyer was not making payments) as of late May?
 - A. 2%
 - B. 8%
 - C. 1%
 - D. 11%
- 2 Personal saving as a percentage of disposable income hit 33% in April, after climbing to 9.6% in the first quarter. Since 1947, the quarterly rate exceeded 15% only one time. In what year was that?
 - A. 1951
 - B. 1992
 - C. 1975
 - D. 2012
- 3 Which publicly held company did not report a profit in the first quarter of 2020?
 - A. Salesforce
 - B. Slack Technologies
 - C. Tyson Foods
 - D. Coca-Cola
- 4 Which company has filed for bankruptcy since the outbreak of the COVID-19 pandemic?
 - A. Intelsat
 - B. Akorn
 - C. Diamond Offshore
 - D. Hertz Global Holdings
 - E. All of the above
- 5 As of June 8, what was the maximum loan size available under the Fed's Main Street Lending program?
 - A. \$300 million
 - B. \$50 million
 - C. \$100 million
 - D. \$500 million
- 6 By how much did global merger and acquisition activity decline in the first quarter of 2020?
 - A. 10%-14%
 - B. 15%-19%
 - C. 20%-25%
 - D. More than 25%
- 7 On which date did the World Health Organization declare the coronavirus a pandemic?
 - A. March 11
 - B. February 26
 - C. January 30
 - D. March 29
- 8 Which U.S. leader said back in May, "In the long-run and even in the medium-run, you wouldn't want to bet against the American economy."
 - A. President Donald Trump
 - B. Treasury Secretary Steven Mnuchin
 - C. Republican Senator Rand Paul
 - D. Federal Reserve Chair Jerome Powell



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