CFO

THE WAY FORWARD

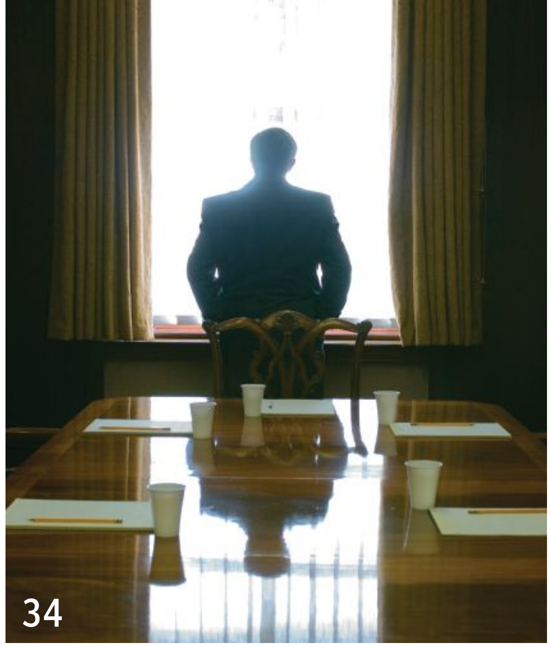
CFOs pursue capital spending solutions that stress flexibility

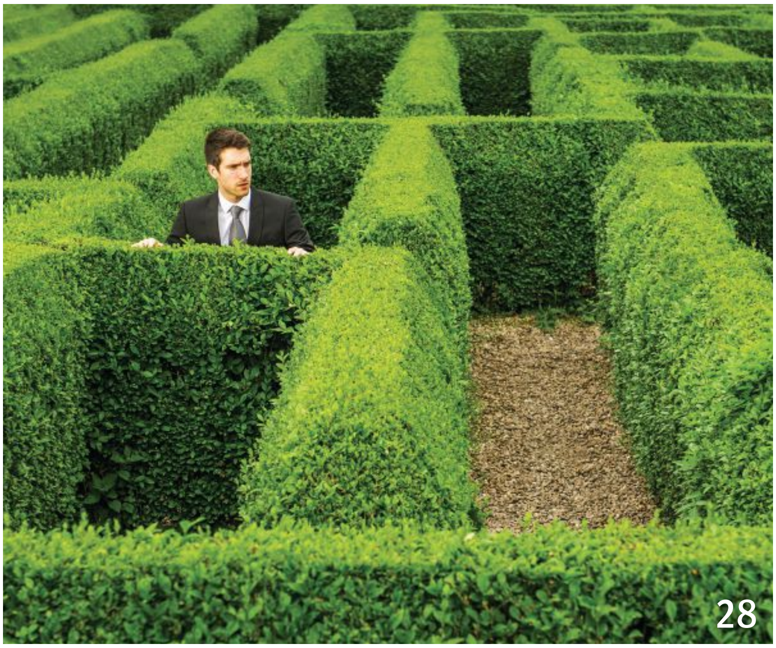
SPECIAL REPORT: ARTIFICIAL INTELLIGENCE

THE RISKS AND REWARDS OF DIRECTORSHIPS

IN THIS ISSUE

October 2017
Volume 33, No. 8





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IN THIS ISSUE

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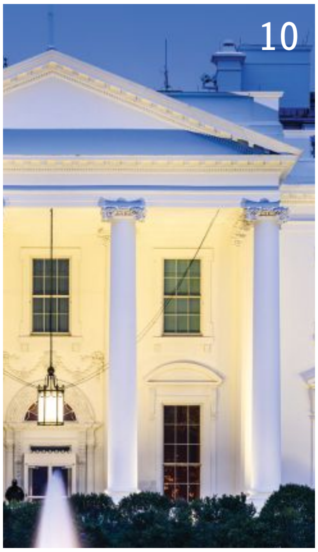

Up Front

By the Numbers

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FROM THE EDITOR

Career Opportunities

I have to admit that I enjoy the snug U.S. labor market, as long as I don't need to fill an open editor slot. Perusing job openings and envisioning an alternate career path can be instructive. CFOs, of course, are no different. In this issue of the magazine, we present three different stories that directly or indirectly address the career paths of CFOs.

The story mix is part by coincidence and part by design. The finance chief turnover rate among S&P 500 and *Fortune* 500 companies is 18.7% this year, and, in a more longer-trending data point, many public-company CFOs stay in their job for less than five years. That means our readers are always thinking about the next leg of their professional journey.

For the ambitious, that next rung on the ladder might be the CEO suite. In "The Obstacles to Moving Up" (page 20), deputy editor David McCann looks at what the data say about a CFO's chances of reaching that coveted office. I won't spoil the surprise. But note what Tom Kolder, president of executive search firm Crist Kolder Associates, told McCann: "For about 80% of the CFO searches we're doing, our clients are specifying that they want someone who can be a CEO someday."

For controllers, treasurers, and division presidents, the data are also encouraging: not only is turnover high, but only about 18% of sitting CFOs in the firms studied were finance chiefs in their immediate prior positions.

The other career-related pieces in this issue are "Portrait of a Private Equity CFO" (page 22) and "Wanted: A Hands-On CFO" (page 10). The latter is a counter-argument to the notion that a CFO has to be a "strategic thought partner" to the CEO. As it turns out, some CEOs just want the CFO to be a down-in-the-trenches member of the finance team.

Not sexy, I know, but very necessary. A career can be derailed by the littlest things, like having to restate earnings because you took your eye off of the company's application of GAAP. Ambition, after all, also requires staying diligent in your current job.

Vincent Ryan
Editor-in-Chief

EDITOR'S PICKS

FINANCE
Argyle Executive Forum's flagship New York event for finance chiefs is coming up next month. The **2017 Chief Financial Officer Leadership Forum** takes place in New York City on November 14. Hear from the CFO of York Services, the VP of supply chain analytics at McGraw-Hill, and others. See the full speaker list on the Argyle website.

STRATEGY
Worried that other industries have clearer insight into your customers? Digitization is causing a "radical reordering" of traditional industry boundaries, say a trio of McKinsey consultants in **"Competing in a World of Sectors Without Borders."** Read the full article on the McKinsey Quarterly website.

PRICING
The Apple iPhone X's $1,000 pricetag wasn't a mistake, says consultant Rafi Mohammed in **"The Psychology Behind the New iPhone's Four-Digit Price."** Mohammed argues that Apple's move was designed to "set an expectation of unrivaled greatness in consumers' minds." Read more on the Harvard Business Review website.

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Mark Bennington

In "Wanted: A Hands-On CFO" (page 10) Bill Sandbrook, CEO of U.S. Concrete, laments the difficulty he's had hiring **a CFO who will be content to just run finance and not perform strategist and business-partner roles.**

When we wrote about his predicament on CFO.com, it elicited a stream of critical comments and advice for Sandbrook, who was looking for his fourth CFO in his six years at the company's helm.

"I'm not surprised Sandbrook is burning through so many CFOs," one reader offered. "I wonder if his board is questioning what's going on. He is hardly the first (or last) CEO who believes the best place for his CFO is counting the beans or handling the bankers. **Clearly some leaders are threatened by the ever-expanding role of CFOs** and choose to limit a person who could provide valuable insight on many different issues."

Agreed another audience member, "Sandbrook's comments sound very presumptive. What if he offered to have a conversational interview about how the candidate could bring real power to the role that might include more than can now be imagined? What might two leaders co-create if they knew how to act and talk generatively with each other?"

One solution for the CEO might be to hire a "rent-a-CFO" or a recently retired finance chief who is bored and looking for a consulting gig, suggested another commenter. "Go-getters would rather see their career on an upward trajectory," he wrote. **"Anyone who is truly qualified and says they are happy to do grunt work and not get ahead is lying to you** and will leave anyway."

Perhaps, though, the last word should be given to another, practical-minded reader: "Guys — research the company before you try to take it out. Why would the board question Mr. Sandbrook when since January 2016 he took the company's stock from the mid-$40s to the low-$80s?" [Editor's note: the stock sat at $76 as this issue went to press on Sept. 22.]

Meanwhile, "Research Refutes Sarbanes-Oxley Critics" (page 8) notes that companies are more likely to be charged with fraud if auditors previously found material weakness in their internal controls. Responding to our CFO.com article, one reader was not impressed. **"What this study tells me is that issuing material weaknesses [findings] had no deterrence effect** on these companies," he wrote. "They were going to commit fraud with or without [SOX]. This law needs to go."

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STATS OF THE MONTH

$10.7T
Total assets of the eight "systemically important" U.S. banks at year-end 2016

50%
Approximate percentage of total U.S. depository assets held by the SIBs

$10B
Asset threshold below which the Treasury Department says banks should not be subject to the Volcker Rule

25%
Growth in loan volume since 2010, the lowest for any post-WWII economic recovery

Source: U.S. Treasury Department, June 2017

AUDITING

Research Refutes Sarbanes-Oxley Critics

Strong evidence exists of a link between auditor-identified weak internal controls and subsequent fraud cases. By David McCann

Since its passage in 2002 in response to financial scandals that shook the corporate world, the Sarbanes-Oxley Act, or SOX, has steadily been a target for critics. In particular, Section 404(b), which requires companies to have external auditors assess the adequacy of their internal controls over financial reporting, has provoked complaints.

Indeed, the criticism shows no sign of letting up. Testifying before a congressional panel in July of this year, New York Stock Exchange president Thomas Farley claimed that 404(b) deserved much of the blame for the dwindling number of public corporations in the United States. He lamented that the provision has saddled companies with "significant cost" but "doesn't show clearly that we've reduced fraud and [hasn't] greatly inspired confidence."

However, some new research may inspire greater confidence. An academic study in the current issue of *Auditing: A Journal of Practice & Theory*, an American Accounting Association publication, concludes that 404(b) provides "an early warning system" for company fraud. The research finds "a statistically and economically significant association between material weaknesses [in internal controls] and the future revelation of fraud."

According to the research, the incidence of fraud disclosures at companies previously found to have material weaknesses is about 80% to 90% greater than is the case among companies generally. Further, of the 127 fraud cases identified by the study, 36 of them, or almost 30%, were preceded by auditor reports of material weakness in internal controls.

"Although material-weakness reports mostly reflect accounting errors and portend revelations of fraud only infrequently, the fact that they precede almost 30% of the instances where fraud does, in fact, come to light should lead investors, regulators, and legislators to take notice," says Matthew Ege of Texas A&M University, who carried out the study with Dain Donelson and John McInnis of the University of Texas at Austin.

Whether material weakness in internal controls is connected to fraud has been hotly debated. At the time SOX was implemented, SEC commissioners expressed strong confidence that assessments would deter the kind of massive fraud that had been exposed at Enron. Yet, scholars and accounting professionals alike have expressed skepticism, contending that top company managers could override the best-laid internal controls.

In fact, some have argued that devious corporate leaders would favor strong con-

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trols, since it would reduce the chance of discovery of their own malfeasance and its fruits would fall to them personally rather than to fraudsters in the ranks.

The professors collected some 14,000 internal-control opinions that auditors issued for large and midsize corporations and analyzed the relationship between reports of material weaknesses and revelations of company fraud within the following three years. Fraud was identified through review of settled securities class-action lawsuits and federal enforcement actions.

Within the sample, auditors issued some 1,500 reports of material weakness, of which 127 (about 8.5%) were followed within three years by legal actions that revealed fraud. This in-

Paul Sarbanes

frequency notwithstanding, if the time frame is turned around, 36 of the 127 fraud revelations (about 30%) turned out to have been preceded by reports of material weakness. CEOs were named in 111 of the 127 fraud cases and CFOs in 108 cases.

In three-fourths of the 36 cases preceded by material-weakness reports, the fraudulent activity that later came to light was taking place undetected at the time of the audit. How did the weakness enable fraud? The professors test three plausible mechanisms: (1) opportunity created by a specific account or process, (2) opportunity stemming from a company-wide operational lapse (such as general accounting incompetency), and (3) cultural failings, such as habitual tolerance of misconduct.

Michael Oxley

The evidence, the researchers concluded, supports the second route—a finding, they believe, that should make investors and regulators especially wary of shrugging off operational weaknesses that are company-wide. CFO

CAPITAL MARKETS

The Right Recipe For Reg A+

The crowd (and Wall Street) embrace an IPO from Chicken Soup for the Soul Entertainment.

Many Reg A+ offerings—a type of crowd-funded securities sale amended in the JOBS Act—don't make it to the finish line. According to an SEC report, as of year-end 2016 only about 56 of the 97 companies that pursued such offerings reported positive proceeds.

Part of the problem has been coming up with the right approaches for attracting non-accredited investors and for sparking the interest of Wall Street brokerage firms. Two-plus years after the Reg A+ effective date, however, it seems that some businesses are starting to find the right formula.

"Exhibit A" is Chicken Soup for the Soul Entertainment (CSSE), a developer of video content tied to the "Chicken Soup for the Soul" series of books. CSSE's offering launched July 17 on the Folio Investing online brokerage platform, and crowd participation was so brisk that initially the share-selling systems were overwhelmed, says Bill Rouhana, CEO of CSSE. Potential investors started calling CSSE directly, which the business didn't have the staff to handle. Then CSSE started giving callers' names to the brokerage firms participating in its selling group.

CSSE had initially planned to allocate 900,000 shares but ended up selling 2.5 million shares, racking up gross proceeds of about $30 million.

Rouhana attributes the success to having "both Wall Street and the crowd working together. I really think that's how Reg A should be done." CSSE videos have a rabid following, and CSSE enlisted some top-flight firms, including HCFP/Capital Markets, The Benchmark Co., and Weild & Co., to be the deal's joint bookrunning managers.

Another key, according to Rouhana, is that the CSSE class A common stock will be listed on the Nasdaq Global Market, giving investors liquidity in a secondary market and requiring the company to file quarterly reports. "We're as public as any company can be," he says.

A capital shortfall previously forced CSSE to get paid by a sponsor upfront before it went into production. Now, CSSE plans to give sponsors more flexibility in how they pay. "It opens up the world to many more sponsors," Rouhana says. | VINCENT RYAN

From top: Wikimedia Common (2), Thinkstock

HIRING

Wanted: A Hands-On CFO

Since CEO Bill Sandbrook joined U.S. Concrete six years ago, he's had three chief financial officers. Now he's looking for his fourth. But it hasn't been easy, and not just because the U.S. job market is tight. The CFO role at U.S. Concrete, a small-cap, publicly held company in the ready-mixed concrete business, just might not be as glamorous as some candidates hope.

"We're not GE," Sandbrook explains of the $1.2 billion company. "We operate with very low overhead and a small staff, so I need the CFO to be a 'roll up their sleeves' contributor and participant, not just a manager of other people."

The three main job duties for the next CFO will be investor relations (there is no IR department), controllership (the company received adverse opinions on its internal controls from its auditor, Grant Thornton, in both 2015 and 2016), and capital markets (the company doesn't have deep pockets, so it needs to be flexible in its approach to raising funds and clear in its communications with rating agencies).

Candidates for the job, Sandbrook says, invariably are looking at it as a stepping stone to a lead finance role with a big-cap company. But he's looking for a "fairly long-term commitment."

Another issue for the CEO is that a lot of CFO candidates don't relish the controllership aspect of the job.

"They've done that earlier in their career and they don't want to be engaged in it," he says. They also want to be the CEO's "business partner" on strategy, but Sandbrook says he isn't looking for that: "We have a development team and a [chief operating officer], and the strategy is very consistent and not that complex."

He adds, "It's pretty clear what I want, but it's amazing at how difficult it is finding that person." | **V.R.**

CAPITAL MARKETS

White House Access Boosts a Stock

Using data on White House visitors from 2009 through 2015, researchers have found that corporate executives' meetings with key policymakers were associated with share-price increases for their companies.

Such meetings with White House officials were followed by significant positive "cumulative abnormal returns" (CAR), according to the study. For instance, the CAR was found to be about 0.865% during a 51-day window surrounding the meetings (i.e., 10 days before to 40 days after the meetings).

"We also find that the result is driven mainly by meetings with the President and his top aides," the authors wrote in their working paper, "All the President's Friends: Political Access and Firm Value." They added, "We find insignificant CARs for cancelled visits."

The value of such access appears to have a limited shelf life when the presidency changes hands. The researchers found that "the stocks of firms with access to the Obama administration underperform[ed] the stocks of otherwise similar firms by about 80 basis points in the three days immediately following the [2016] election."

The researchers also contended that they found evidence suggesting that companies get more government contracts and are more likely to receive regulatory relief after their representatives meet with White House officials.

"Overall, our results provide evidence suggesting that political access is of significant value to corporations," say the paper's two authors, Jeffrey Brown, a finance professor at the University of Illinois at Urbana-Champaign, and Jiekun Huang, an assistant finance professor at the school.

Using a dataset of White House visitor logs, the authors identified 2,286 meetings between corporate executives and federal officials. | **DAVID M. KATZ**

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DISCLOSURE

Thumbs Up For Sustainability Disclosure

The portion of public company board members who believe that sustainability disclosures are important to inform investors has more than doubled in the past year, according to new research. Among 130 board members surveyed in August by accounting firm BDO USA, 54% said disclosures regarding sustainability were "important to understanding a company's business and helping investors make informed investment and voting decisions." Last year, just 24% of directors felt that way. Further, a majority of the respondents said they were against President Trump's decision to withdraw the United States from the Paris Climate Accord. (See chart.)

The survey's authors linked boards' growing interest in sustainability reporting to recent demands for such information on the part of shareholders, citing the case of Exxon Mobil. In May, nearly two-thirds of Exxon Mobil shareholders approved a proposal requiring the energy company to measure and disclose how rules curbing greenhouse gases and new energy technologies could affect the value of the company's oil assets.

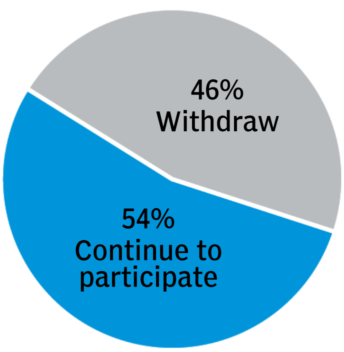
"Other shareholder groups have expressed similar interest in increased disclosures on sustainability matters (e.g. climate change, corporate social responsibility, etc.), and corporate directors have become increasingly receptive to the issue of providing sustainability metrics in financial statements," according to the report.

The BDO survey finding parallels investors' surging demand for sustainability data. Many money managers are starting to see sustainability data as a proxy for alpha, an indication of above-average returns. In an April equity research report, Goldman Sachs claimed to have found direct links between corporate, environmental, and social factors and company financial performance.

"By focusing on a selective suite of key ESG metrics, mainstream investors can add a differentiated and alpha-additive complement of risk analysis to their toolkit," according to Goldman. | D.M.K.

Mixed Forecast

What should the U.S. do with regard to the Paris Climate Accord?



Source: BDO USA survey of 130 board members

AUDITING

Advice: Fire Auditors Early

CFOs thinking about firing their independent auditor for legitimate reasons, like dissatisfaction with the firm's price or quality, might want to cut the cord before the end of their second fiscal quarter.

When announcing an auditor dismissal later than that, a company risks being "lumped in with the bad apples" that want to end the relationship to cover up "nefarious" doings, according to Jeff Burks, associate professor of accountancy at Notre Dame.

Dismissals earlier in the year, when auditor contracts are typically up for renewal, signal to investors that the action "was a planned process" rather than a "sudden change of heart," says Burks, who, along with Jennifer Stevens, an assistant professor at Ohio University's College of Business, coauthored a new study of 16,096 auditor dismissals between 2000 and 2013.

Later dismissals, he adds, are bound to trigger questions in the capital markets: "What prompted you to change your mind? You knew what the auditor fee was going to be, so it's likely you were prompted by some kind of conflict with the auditor." The market may assume the problem is with the company rather than the auditor, as auditors typically stay closed-lipped about problematic client reporting.

The authors also offered evidence of what investors have long suspected: when a company waits more than a quarter or two to fire its auditor, it's more likely there will soon be negative news about the company than if it had acted earlier. | D.M.K.

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RISK MANAGEMENT

Why Stand Alone Against Cyber Risk?

While most companies now have insurance policies that cover specific cyber risks, a growing number are addressing one particular risk—legal liability—as part of broader policies that cover other property-casualty exposures, according to research by the Risk and Insurance Management Society.

To be sure, 83% of the 288 corporate risk managers surveyed said that for 2017 their companies bought so-called "stand-alone" insurance policies—coverage designed to address risks like network security failures or liability stemming from a privacy breach, for instance. But that's a mere uptick from the 80% recorded in 2016, when the number of respondents buying such coverage soared by a whopping 29% compared with 2015.

Further, the number of companies that get their cyber liability coverage from buying other, broader kinds of insurance appears to be rising faster than the population of those that go the stand-alone route. Among companies that have cyber coverage of some kind but not stand-alone policies, 84% said other insurance policies they purchased included cyber liability coverage (up from 76% last year).

"The rate of increase for stand-alone policies might be slowing because other forms of insurance coverage are picking up the slack," the researchers wrote.

The reason for this trend? "Those who want to buy cyber coverage have bought it, and specialty stand-alone cyber coverage is nearing saturation," the report said. In 2018, the authors predicted, "any trends along these lines will be more discernible."

But the findings may indicate a disconnect between the purchasers of cyber coverage and the insurers. Even as companies' proclivity to purchasing stand-alone policies seems to be slackening, insurers are gearing up to sell more of them. | D.M.K.

ACCOUNTING

Hedging Rules Aim To Cut Reporting Costs

An accounting standards update drops a requirement that companies must measure and report "hedge ineffectiveness." By David M. Katz

The updated hedge accounting rules issued in late August by the Financial Accounting Standards Board should cut the costs and burdens of derivatives accounting for companies, FASB vice chairman James L. Kroeker said in an interview with *CFO*. It should also encourage fearful companies to enlist in the hedge accounting regime. ¶ Based on corporate executive comment letters and roundtables in the runup to the accounting standards update (ASU), Kroeker feels that hedge accounting will become cheaper and less administratively burdensome for issuers. To be sure, the accounting board hasn't been able to amass quantitative assessments of the cost savings, largely because corporate estimates have been hard to come by.

Even financial report preparers who regularly use derivatives to hedge commodity and interest-rate exposures "can't estimate the cost" of hedge accounting rule changes, says Kroeker. Still, financial statement preparers "agree that, qualitatively, this will be a cost savings and certainly [reduce] the burden on them doing all that's required in hedge accounting," he adds.

Amending a 1998 standard, FASB says its objective in issuing the update is "to better align hedge accounting with an organization's risk management activities in the financial statements." Further, "the ASU simplifies the application of hedge accounting guidance in areas where practice issues exist," FASB says.

One of the main practice issues FASB has targeted for simplification—and a prime source of potential cuts in corporate compliance costs—is the current requirement that companies measure and report hedge "ineffectiveness." That's the amount the hedge fails to offset the hedged item. The board reckoned that hedge ineffectiveness was a tough concept for companies to measure and report, and a hard one for investors to grasp. As a result, FASB decided to eliminate the requirement.

"If you have a derivative that's highly effective, you won't have to measure ineffectiveness going forward," the FASB vice chairman says, noting that measuring ineffectiveness can require a company to set up and maintain a "complex mathematical model," which can be a costly proposition.

Current generally accepted accounting principles enable companies to use hedge accounting only for the portion of the hedge deemed to be "highly effective," meaning that changes in the value of the hedged item and the hedging derivative significantly offset each other. (Corporate derivatives users find hedge accounting desirable because it enables them to avoid having to report hedge results on their income statements, a situation that can make earnings appear volatile.)

Kroeker doesn't think eliminating the requirement to report hedge ineffectiveness sacrifices the rigor of the existing hedging rules. "The standard still maintains the high bar that, in order to achieve hedge accounting, the derivative must be highly effective at offsetting the risk that you're trying to hedge," he says. "And initially [the standard still requires the preparer] to make a quantitative assessment to make that determination."

Another way the ASU makes life easier is by giving companies more time to document a hedge, Kroeker notes. In particular, private companies that aren't financial institutions and certain nonprofits won't have to con-

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tinuously document their testing of hedge effectiveness.

Instead, the performance and documentation of effectiveness testing will align with the issuance of quarterly and annual financial statements for those organizations. "Private companies have told us that, given their resources, it's particularly challenging to have all of that documentation contemporaneously," Kroeker adds.

Overall, in issuing the ASU, FASB wants to change the hedging rules to more closely reflect the underlying economics of derivatives deals and to match the accounting to the way companies actually manage their risks. For example, the new update will enable companies to account for the specific components of a nonfinancial risk that are being hedged, rather than having to provide the broader reporting that's currently required.

"The standard still maintains the high bar that, in order to achieve hedge accounting, the derivative must be highly effective at offsetting the risk ."—James L. Kroeker, vice chairman, FASB

Thus, the "amendments remove the requirement in current GAAP that only the overall variability in cash flows or variability related to foreign currency risk could be designated as the hedged risk in a cash-flow hedge of a nonfinancial asset," according to the ASU.

"There were a number of commonly employed risk management strategies where the limits of hedge accounting prohibited directly accounting [for] components," says Kroeker. In reporting a derivative transaction that specifically covered fluctuations in the price of corn, for example, a company might be required to calculate and report other expenses, such as transportation, that would be included in a total purchase price. Under the new update, however, "you could hedge directly to a component of the price. CFO

A Headache For Health Care

Consolidation complicates revenue recognition standards adoption.

When the new revenue recognition rules take effect for public companies after December 15, 2017, the health-care industry will have to cope with a confluence of difficulties in figuring out how much revenue to recognize for its services, experts say. Among them are consolidation of the industry, a broad trend that includes the integration of different types of provider organizations and resulting confusion relating to their various payment systems. Also challenging: the addition of new "variable" payment arrangements on top of longstanding fee-for-service systems.

"There's an especially wide diversity of provider types within the healthcare system, including hospitals, health plans, physician practices, nursing facilities, and retirement communities. They all have specific nuances to them, and one size does not fit all" in terms of how they recognize revenue, says Venson Wallin, a managing director at BDO.

In addition to the various provider groups, the industry's consolidation is also producing ever-larger integrated health systems that are gobbling up those groups. "When you have an integrated health system, you are facing myriad decisions and implementation issues associated with revenue recognition because of the diversity of providers and their contracts," Wallin says.

Another big challenge for healthcare CFOs is that the compliance deadlines are coming on the heels of the implementation by many hospitals of a new "value-based" Medicare payment system.

Hospitals that take part in the program will receive rewards based on the quality of care they provide, how closely best clinical practices are followed, and how well they improve patients' experiences of care.

The program presents health-care CFOs with the added difficulty of tracking quality metrics on top of the straight payment metrics of the existing Medicare fee-for-service system, according to Wallin.

The change that many hospitals are making from a fee-for-service billing system to a value-based system will add a considerable layer of complexity, according to Steven Shill, who leads BDO's Center for Healthcare Excellence and Innovation. Value-based reimbursement is based on an "episode of care" in which services are bundled together for billing purposes.

"The shift of reimbursement from a fee-for-service basis to the value-based, bundled type reimbursement," says Shill, is "what really makes the estimation of the transaction price difficult."

For private firms, the new rules take effect for annual periods starting after December 15, 2018, and interim periods after December 15, 2019. | D.M.K.

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STRATEGY

Accentuating the Positive

How Robert Falzon ultimately turned an early career termination into a CFO role at Prudential Financial. By David M. Katz

During his company's August earnings call, Robert Falzon, the CFO of Prudential Financial, demonstrated his ability to develop a positive outcome from a negative event. Falzon and other executives of the life insurance and financial services giant had some bad news to explain: a nearly 23% negative earnings surprise versus the consensus of analysts' estimates. Perhaps to soften the blow, the finance chief portrayed the surprise in terms of a broader context.

Yes, Falzon acknowledged, Prudential's reported second-quarter profits had been hurt by the cost of making significant enhancements in the actuarial systems it uses in setting its insurance reserves. Changes the company made in the accounting for insurance policies still on its books but no longer actively sold also had a negative effect. In the longer term, however, changes like the ones in the company's actuarial assumptions could take the wrinkles out of volatility, he contended.

Falzon says he tries to clarify for analysts the difference between the immediate, often negative "noise" produced by one-time actions and the positive long-term effects of those actions. In a previous example, a 2015 Prudential divisional restructuring in Japan aimed at curbing long-term volatility in the company's foreign exchange results may have played a part in some temporary financial reporting dips in 2016.

Describing such changes as "noneconomic"—not reflective of Prudential's underlying business—Falzon grants that they may create financial disruptions that can affect share price. "And if it has an impact on our share price, it is, by definition, economic, and so we care about it," he adds.

The ability to perceive how negatives can be turned into positives seems to have been at least partly spawned by an occurrence at the end of the first decade of Falzon's nearly 34-year career with Prudential, he explained in an interview with *CFO*. The event? He was fired from his managing director slot at the private-placement arm of Prudential's global investment management group.

"After an initial period of anxiety, dejection, and self-doubt about being fired, I decided that I had no interest in being a victim," he told graduates of Rutgers University's business school during a commencement address in 2016. "Instead, I decided to look at my dislocation not as an obstacle, but rather as an opportunity. I doubled down and completely changed my career track," he said.

That track ultimately led to his being named CFO of the company, which took in about $23 billion in gross profit on $59 billion in revenue in 2016. Adept as he appears in corporate finance, Falzon says the aspect of his job he's most passionate about is developing Prudential's talent. An edited version of his interview with *CFO* follows.

I'm intrigued by what you did in Japan to curb financial reporting volatility caused by foreign exchange fluctuation. How did that work?

We undertook a number of large initiatives to stamp out that volatility, some of which has been noneconomic, some of which has been economic. The biggest thing we did from a noneconomic standpoint is that we completed something we called the division project, which eliminated a lot of completely noneconomic noise we were getting from our international operations.

It was a really modest restructuring. We spent a couple of million dollars to do it, and it was 100% noneconomic. We have a different program for managing foreign currency risk. This was

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an undertaking to manage foreign currency reporting, which was not reflective of underlying risk.

What we had to do was create three functional currencies within our Japan business. We sell products in Japan in yen, in Aussie dollars, and in U.S. dollars. If you have a functional currency of yen under our Japan GAAP reporting there, it all works out fine. But when you translate that from Japan GAAP over into U.S. GAAP you get a mismatching of the Aussie dollar and the U.S. dollar because of the designation of yen as the functional currency.

So, we created three functional currencies within our Japan business: a U.S. dollar, an Aussie dollar, and yen. To do that, we had to create three divisions in order to match up with each of those functional currencies, hence the name "division project."

The project allowed us to re-assign functional currencies to eliminate purely noneconomic GAAP noise, so that both U.S and Aussie dollars wound up in the same place and neutralized each other.

What's your role in managing underlying foreign currency risk?

One, we have a rolling, three-year income hedge that creates a high degree of predictability as to what the influence of foreign exchange rates will be on our earnings over the next couple of quarters and years.

We roll into our hedges over time, so we're actually able to say to analysts, "Don't worry about FX, the exchange rate for purposes of your modeling is going to look like this." That reduces the noise and distraction that can occur by virtue of changes in foreign exchange for our company, which has 45% of its operations outside of the United States.

An equal, if not greater, component of how we manage FX exposures is our equity hedge. In the case of Japan, for example, which comprises 80% or 90% of our international operations, we immunize our shareholders' return on equity from changes in exchange rates between the yen and the U.S. dollar.

"In 2015, we completed something we called the division project, which eliminated a lot of completely non-economic noise we were getting from our international operations."

— Robert Falzon, CFO, Prudential Financial

How does Prudential's finance function connect to the structure of the rest of the company?

We embed our finance teams within the businesses. While they have a direct reporting line to me, they also report on a dual basis to the CEOs of their businesses. We have regular engagement with the other functional areas as well, and many of the projects that we lead require cross-business and cross-functional collaboration.

How do your views on employee mobility flow from your career experience?

My own personal experience has been one where I had a lot of mobility. And the first stage of that mobility [that of being fired] wasn't something I sought. It was imposed on me, but I learned from that and then sought mobility afterwards.

So, if you've been in a controller's role with our individual life business, then maybe a planning and analysis role with our group [insurance] business or our annuities business would be a good next experience for you.

That creates optionality for our employees to become better, more well-rounded professionals. The win for us is that they're more likely to stay.

What career insights did your firing and its aftermath provide?

I like to call it dislocation instead of a firing. But yes, I was fired. I started in our private placement group [in 1983], spent about a decade doing that, grew to a leadership position, and got fired. There was a reorganization. I was just one of those individuals who didn't turn out on the right side of that reorganization.

I had offers [from other companies], but I also had one at [a Prudential investment bank]. I had been looking at investment banking, and that's where my [outside] offers were coming from [as well]. But I decided to stay with Prudential, because, despite that event, I actually still liked the quality of the people and the culture. Up until that one disruption, I'd actually had quite a good experience with Prudential and had strong relationships.

So I worked for a little less than a decade in [Prudential's] investment banking area. [That] gave me capital market skills, and I learned how to manage a different set of team dynamics and personalities than I would have in other parts of the organization.

But investment banking required a very high level of engagement on the work front and less engagement on the personal front, and I got to a point where that equation needed to change for me. I had done real estate investment banking during the latter part of my career [in the investment banking unit], which created an opportunity for me to go over to Prudential's real estate investment management operations.

All those experiences ultimately made me a legitimate candidate to become a treasurer of a company, and I became Prudential's. From there I was ultimately appointed to CFO. Those were great experiences that built skills, and, reflecting on that, I see why I have such a passion for having other individuals do that programmatically, as well as leaving them on their own to do it. In my particular case, there was no program for that to happen. CFO

Courtesy Prudential Financial

The Obstacles to Moving Up

Few finance chiefs get a chance to be CEO, and those at midsize companies often lose out on bigger CFO jobs. By David McCann

For finance chiefs with a yen for moving up to the CEO chair, the likelihood of that happening pulled back in 2017—but their future prospects might be brighter than the current data suggest. ¶ From 2013 through 2016, the proportion of big U.S. companies whose chief executives had been CFOs in their most recent previous position had inched steadily upward. By last summer, that was the case for 7.8% of CEOs at the 671 companies that were in the 2016 edition of either the *Fortune* 500 or S&P 500, according to research by executive recruiting firm Crist Kolder.

But as of August 1, 2017, the prevalence of ex-finance chiefs in the top corporate role had faded to 6.2% (of the 673 companies in this year's dataset), wiping out all the gains since 2014 and translating to a loss of about a dozen CEO seats for ex-CFOs. That's something of a surprise, considering the ongoing shift in the mix of CFO responsibilities toward the operational side and away from pure finance.

Indeed, the proportion of chief operating officers within the two groups of large companies has been falling steadily for two decades, bottoming out at 29% this year, as finance chiefs have assumed more and more of the operational load.

"Is this an aberration? We think so," says Tom Kolder, president of Crist Kolder. "For about 80% of the CFO searches we're doing, our clients are specifying that they want someone who can be a CEO successor someday."

One way to look at that trend is that companies merely want a broad field of succession candidates to choose from. And they do want that, Kolder says, but it doesn't mean CFOs will continue to be left on the bench to the same degree going forward. For succession planning, companies typically look at three-to-five-year time frames in which they may make changes in the highest executive ranks. And it wasn't until about 2012 that they significantly began asking recruiters to provide CFO candidates with the desire and capability to be a CEO, according to Kolder.

"I think we're going to have to wait another year or two to see whether the number clicks up to 10% [of ex-CFOs in CEO roles] or just sits at 6%," he says.

The desire for greater operational wherewithal in finance chiefs corresponds to a significant trend in recent years: since 2012, the average age at which CFOs are hired has shot up from 42 to 48. "Companies are looking to hire broad business leaders as opposed to subject-matter experts, and it takes longer to fully develop the right combination of financial and operating perspectives," says Kolder.

But once someone lands a CFO role, he or she shouldn't expect to hold it for too many years. The current average tenure of *Fortune* 500 and S&P 500 finance chiefs is 4.9 years. That does mean that more than 100 of those seats are becoming available every year, which might seem promising to finance chiefs at smaller companies who want to move up the size scale. Unfortunately, they shouldn't get their hopes up, either.

The fact is, only about 18% of the sitting CFOs at these large companies were also finance chiefs in their immediate prior positions. Instead, companies show a strong inclination to promote internal business-unit presidents, COOs, or divisional finance leaders to the top finance spot, or else hire someone from outside who's run finance at a big division of another company.

Looking externally is more common a bit further down the size scale. Companies in the $1 billion to $5 billion revenue range are Crist Kolder's "bread and butter," Kolder says, because they often don't have enough talent in the

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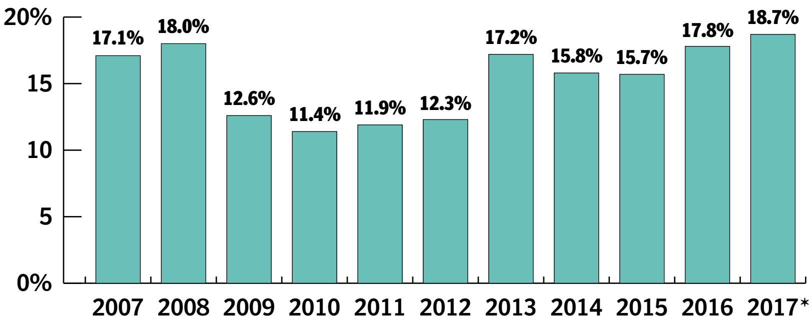
Rate of Replacement

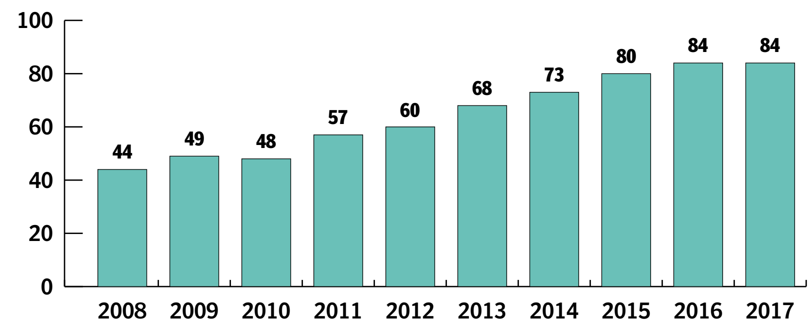
Annual CFO turnover among 2017 *Fortune* 500 and S&P 500 companies was nearly 18% last year, even higher than during the financial crisis.



*Projection of 2017 year-end. Source: Crist Kolder Associates

Gender Diversity Gains

The number of female CFOs among the 2017 *Fortune* 500 and S&P 500 companies has nearly doubled over the last 10 years.



Source: Crist Kolder Associates

organization to compensate for a high-level departure.

"The first thing they'll say is that they want someone who has sat in the CFO chair before, which makes sense," he says. "But the reality is that the sitting CFOs they're able to attract and recruit are likely to be at companies in the sub-$1 billion revenue category, and in fact usually the sub-$500 million category."

When the CEO and board of the hiring company meet those people, Kolder says, it often becomes clear that their companies' business models and platforms don't have the level of complexity in products, international markets, and scale and process requirements that are needed for the larger company. And that larger company is usually planning further growth that will entail even greater complexity.

In such cases, Crist Kolder presents instead the CFO of a multibillion-dollar division at a larger company, who has gotten some exposure to Wall Street and worked with large scale and complexity. "That feels better to the client," Kolder says. "Maybe that person doesn't have treasury skills, but they'll make that compromise to be sure the person won't get overwhelmed by their size, not just now but what they want to be five years from now."

Here's a sampling of other findings in Crist Kolder's 2017 Volatility Report (it's the 14th edition of the annual report, although it contains information going back to 1995):

• Counterintuitively, CFO turnover is lowest this year in the retail sector, at 6%. With the recent financial misfortunes of most players in the sector and Amazon.com leading a transformative shift from brick-and-mortar models to online sales, it might have been expected that retail companies would need new leadership. But turnover is also lowest among retail-sector CEOs.

• Turnover in the C-suite (CEOs, CFOs, and COOs) has roughly correlated with swings in the S&P 500 index. But the direction of the correlation is perhaps counterintuitive as well: the better the market does, the greater the turnover. Both are now at record levels. That may be partly explained by the increased value of executives' equity holdings, giving them the flexibility to retire. And people generally feel more confident about making changes in their lives when markets are strong.

• The presence of women finance chiefs at *Fortune* 500 and S&P 500 companies reached its peak this year at 12.6%, double the 2005 total. The number of ethnically and racially diverse CFOs has doubled in the past five years, reaching 6.9%.

• Over a long period of years, job volatility for CFOs has been about twice that of CEOs. When a high-level change needs to be made, the first lieutenant is often the first one out. After all, CEOs aren't going to fire themselves.

• Only 32% of *Fortune* 500 and S&P 500 finance chiefs have a "Big Five" public accounting background (including Arthur Andersen alumni) and only 25% have an undergraduate accounting degree. Kolder says he doesn't remember any CFO searches in the past several years where such accounting credentials were in the list of specifications. CFO

HUMAN CAPITAL

Portrait of a Private Equity CFO

Private equity firms increasingly have specific experience requirements for the CFOs they want in their portfolio companies. By Claude Shaw

The ideal private equity CFO is both strategic and operational, serving as a thought partner across various functional and divisional aspects of the business while implementing the systems and processes to help the company reach an exit. ¶ A strategic CFO is growth-oriented and looks at the business "through the windshield," rather than the rearview mirror. An operational CFO often oversees multiple functions beyond finance, most notably information technology, but also legal, human resources, real estate, and supply chain.

In PE-backed companies, the CFO is the conduit of information to the financial sponsor—communicating financial results, working through capital structure issues or acquisition opportunities, and generally speaking the parties' common language of finance. Therefore, PE firms tend to be quite influential in the CFO selection process, even though the ultimate decision typically resides with the CEO of the portfolio-company.

The CFO selection may also be driven by the underlying investment thesis. If growth will come largely from M&A, then a CFO experienced in acquiring and integrating companies will be invaluable. If the exit strategy points to an IPO, then a CFO with public company or capital markets experience will be important but not critical. A notable exception is a pre-IPO situation, with the capital markets challenges it brings.

Enterprise Experience

More often than not, private equity firms fill portfolio company CFO roles with executives who have enterprise-level CFO experience. They will have had full ownership of finance across all functions (audit, tax, treasury, FP&A) and will have interfaced with a board of directors on strategic matters.

Conversely, a divisional CFO may have relied on a shared-services infrastructure to manage other finance areas. Additionally, a divisional CFO may have managed the business to only a certain level of profitability, focusing on, say, gross profit rather than operating income or cash flow.

That said, there are situations in which a divisional CFO can offer just as compelling a skill set as an enterprise CFO. For instance, divisional CFOs from certain large corporations operate their businesses with a level of accountability similar to that of an independent company.

Conventional wisdom holds that an incoming CFO should have worked in an environment that is at least as large and complex as the envisioned future state of the portfolio company at the time of exit. For example, if a PE firm is hiring a CFO for a $500 million company, whose investment thesis calls for doubling revenue through international expansion, it wants a CFO who has managed a business with at least $1 billion in revenue and the complexities of international operations.

Still, bigger is not always better. While the CFO of a multibillion-dollar business will bring more than enough scale, scope, and credibility, he will likely be accustomed to working in an environment with far more resources. The CFO may have cut his teeth in an environment where the infrastructure was already in place and the need to roll up one's sleeves and tackle the challenges of, say, an ERP implementation were not part of the role.

In fact, the ideal portfolio-company CFO combines a knowledge of "what good looks like," from having worked in a larger organization, with the entrepreneurial gumption needed in a smaller environment.

Not every CFO candidate combines both categories of experience, but for those who have worked only at larger

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companies, the nature of their progressive roles can offer evidence of entrepreneurship. For example, many finance executives who have rotated through emerging-market regions of large multinationals have worked in low-resource environments, where the ability to adapt and take a hands-on approach are keys to success.

The ideal portfolio-company CFO combines a knowledge of "what good looks like," from having worked in a larger organization, with the entrepreneurial gumption needed at a smaller firm.

—Claude Shaw, leader at Egon Zehnder

From the Industry?

It seems logical that PE firms should source portfolio-company CFO candidates from within the same industry. As the logic goes, that person will be a more "plug-and-play" solution, bringing knowledge of the competitive landscape, relevant performance metrics, and instant credibility to internal and external stakeholders.

Highly regulated industries, such as financial services and health care, often require a CFO with knowledge of sector-specific regulatory nuances. In a world driven by internal rate of return, time is always of the essence, so the ability for an incoming CFO to get up to speed quickly is critical.

Yet, firms often look beyond their industry to recruit top finance talent, perhaps more so than with any other corporate function. When and why does that make sense?

First, a particular industry or sector may not yield strong talent within finance. Some sectors, such as consumer packaged goods, are renowned for breeding best-in-class finance executives, while a creatively led industry such as fashion may place less emphasis on the finance function. Moreover, hiring a CFO from outside the industry may bring a certain level of objectivity and freshness that can be helpful in thinking about different ways of operating the business.

Finally, firms sometimes look for CFOs who understand certain operating characteristics of the business without necessarily coming from the industry. For example, a consumer manufacturing business that is struggling with supply chain issues may look to hire an industrial CFO who understands plant operations and vertical manufacturing.

PE Chops

How important is prior PE experience for an incoming portfolio-company CFO? The answer varies by sponsor, with some saying it's a "nice-to-have" and others insisting it's a requirement.

Certainly, someone who has been CFO of another private equity–backed company will be familiar with operating in a levered environment, maintaining a relentless focus on cash flow, driving operational excellence, communicating with a PE board, and knowing what information is needed and when.

Even better is a CFO who has not only worked in a sponsor-backed company but has also been involved in a successful exit, with a record of driving measurable value. While one can argue that a CFO learns as much, if not more, from a gritty, operationally challenged PE situation, all else being equal sponsors feel more comfortable with one who has rung the bell and helped to drive a positive outcome.

Due to the nature of short hold periods, experienced private equity CFOs may possess the episodic career path of a journeyman, which can sometimes be viewed as a red flag. But keep in mind that depending on the nature of an exit (sale to strategic buyer, sale to a sponsor, or IPO), a private equity CFO may be a victim of his own success.

To a large extent, industry background and technical abilities are table stakes. What really distinguishes one candidate from another are leadership competencies, which should be well aligned to the sponsor's investment thesis.

First among these is performance orientation, which is, not coincidentally, one of the central business priorities of PE investors. This competency is characterized by a high sense of urgency, a bias for rapid change and continuous improvement, and a strenuous avoidance of negative surprises. From a financial perspective, the CFO's performance orientation manifests itself as a track record of consistently delivering significant year-over-year improvements in financial results.

However, some results may require deep cost cutting and others strategic growth initiatives. While a turnaround situation will require a more surgical approach, most private equity investment theses require the company to grow and evolve.

In these instances, the successful CFO has a "build" mentality and aligns the team appropriately to drive major change-management initiatives. Importantly, the CFO must be able to collaborate with the CEO as a strategic thought partner, aligning around a shared vision for the organization and shaping the finance strategy in support of the company's business objectives. Strategic orientation is particularly relevant when the investment thesis calls for inorganic growth.

Finally, the successful private equity CFO is a strong team leader, with a track record of building high-performance finance teams and enhancing shareholder value. CFO

Claude Shaw is leader of the global private equity practice at leadership advisory firm Egon Zehnder.

Courtesy Egon Zehnder

CAPITAL MARKETS

Is Shareholder Value Bunk?

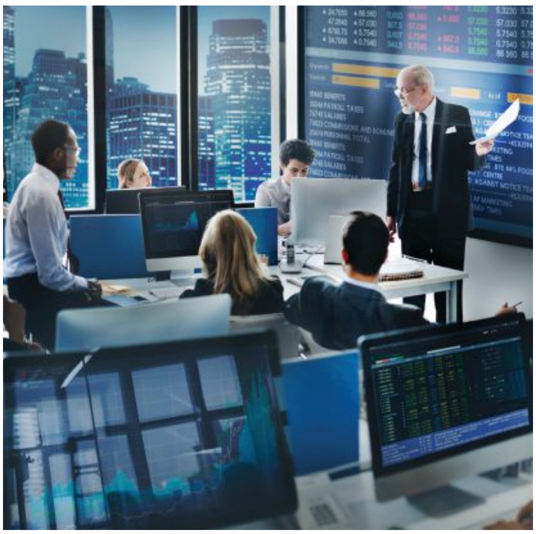
The goal of maximizing shareholder value spawned the looting of U.S. corporations, says one economist. By David M. Katz

Using strong language in a recent working paper, an economist has set his sights on debunking two of the most well-established ideas in corporate finance: the notion that "maximizing shareholder value" should be a company's main goal and the principle that issuing stock has been one of the best ways for companies to raise capital.

"This essay is dedicated to the proposition that [maximizing shareholder value] misunderstands the historical role that the stock market has played in the evolution of the U.S. business corporation and its contribution to economic performance," William Lazonick, an economics professor at the University of Massachusetts at Lowell, writes in "The Functions of the Stock Market and the Fallacies of Shareholder Value."

In the paper, Lazonick contends that the "ideology" of maximizing shareholder value (MSV) has legitimized "the looting of the U.S. industrial corporation." By measuring performance in terms of MSV, corporate America has justified share buybacks that do much more to enrich senior managements and hedge fund activists than to provide the resources needed to fund corporate assets, he argues.

"Conventional wisdom has it that the primary function of the stock market is to raise cash for companies for the purpose of investing in productive capabilities. The conventional wisdom is wrong," Lazonick contends. Citing federal government and academic research on the sources of corporate funds, Lazonick writes that "stock markets in advanced countries have been insignificant suppliers of capital for corporations."



In fact, the current 30-year surge in stock buybacks as a way to dish out cash to shareholders in the United States "has made corporations massive suppliers of funds to the stock market, rather than vice versa," he writes. For example, from 2007 to 2016 the net equity issues of nonfinancial corporations averaged a negative $412 billion per year, according to the Federal Reserve. In 2016, net equity issues were negative $568 billion.

To be sure, new issuers can raise funds through public offerings. "But these amounts tend to be relatively small, swamped overall by the stock repurchases that have made net equity issues hugely negative. Moreover, when the most successful startups become major enterprises, often employing tens of thousands of people, these companies tend to become major repurchasers of their stock," according to Lazonick.

Yet to most economists—and many senior finance executives—the purpose of a publicly held corporation is to maximize shareholder value. So, they would think of the flow of cash from corporations into the stock market as "a 'return' of capital to shareholders who will then reallocate capital to its best alternative uses," according to Lazonick.

But followers of MSV have not been able to connect the dots between shareholder cash and the productive uses it's supposed to fund in corporations, the economist argues. MSV advocates lack "a theory of the value-creating, or innovative, enterprise, and hence cannot explain how 'best alternative uses' come into existence, and in particular the role of organizations rather than markets in creating value in the economy," he writes.

Instead, since the 1980s, there's been a growing split between investors, who lack the knowledge of how companies operate, and value-creating managers and executives. From the 1950s through the 1970s, companies tended to hold on to their earnings and reinvest them in "productive capabilities," like hiring

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"Stock markets in advanced countries have been insignificant suppliers of capital for corporations."

—William Lazonick, professor at the University of Massachusetts at Lowell

and training, according to Lazonick.

In those three decades, New York Stock Exchange–listed companies, for example, got the cash they needed to invest in productive capabilities "from prior capital accumulations and current retentions out of profits, leveraged if necessary by bond market issues," he writes. "By and large, the cash that provided this financial commitment did not come from the stock market."

Since the 1980s, however, major corporations have tended to "downsize-and-distribute" via layoffs or pay cuts and distribute the cash gained to shareholders and to executives and employees via stock options, the economist writes.

Compounding what he sees as the "fundamental error" of MSV advocates—the belief that the stock market is a major net source of corporate finance—is "the assumption that it is only public shareholders who make risky investments in the corporation's productive assets," Lazonick explains. "[Taxpayers,] whose money supports business enterprises, and workers whose efforts generate productivity improvements" also take on considerable risk, Lazonick argues. Taxpayers take on the risk that their payments will go to nonproductive government subsidies, for example, and workers assume the risk that they can be fired at will.

"MSV ignores the risk-reward relation for these two types of economic actors in the operation and performance of business corporations. Instead it erroneously assumes that shareholders are the only residual claimants," the professor argues. CFO

Rising Rates Spell Trouble

Higher interest rates could crush some small-caps.

The total debt of nonfinancial U.S. corporations is at record levels, but is it a looming problem? Yes, at least for some companies, and despite relatively low interest rates and overall high levels of balance-sheet cash.

According to the Institute of International Finance's report, "U.S. Corporates' Net Debt: An Uneven Burden," in the last 10 years "U.S. corporations have experienced a deterioration in their ability to pay interest on outstanding debt." By 2018, says the IIF, the problem may become acute for companies with a market capitalization of less than $1 billion.

"While leverage has increased across the board (both on a gross and a net basis), small-cap firms in particular have an increasingly serious problem with interest payment capacity—leaving them quite vulnerable to rising interest rates," according to the IIF paper.

The authors, led by Hung Tran, IIF executive managing director, examined

a dataset of about 3,000 U.S.–based firms listed on U.S. stock exchanges. The group of companies had an accumulated debt load of $6.9 trillion at the end of the second quarter of 2017, compared with $3.1 trillion in 2007. Combined, their balance sheets also held $2.2 trillion in cash, cash equivalents, and short-term investments (versus $0.9 trillion in 2007).

Segmented by market capitalization, the group consisted of 1,545 small-cap firms (market cap of less than $1 billion), 866 mid-cap firms (market cap between $1 billion and $5 billion), and 613 large-cap firms (market cap of more than $5 billion.)

Small-cap and mid-cap firms had relatively stable debt-to-equity ratios over the 10-year period (18% and 62%, respectively), while large-caps pushed their leverage to a record high of 83% (compared with 50% in 2007), write the authors.

However, when it comes to measuring debt to earnings (what the authors label "gross debt to earnings before interest and tax"), small-cap firms showed the largest increase in leverage since 2007, at 3.5x. Small-caps also have the lowest interest coverage ratios (ICR), which reflect companies' ability to pay interest on their debt out of current earnings. The median ICRs (a ratio of EBIT to interest payments) of the small-cap companies in the group fell to what the IIF calls "essentially nil" in 2017, down from 2.7x in 2007. That means, the IIF authors note, that these companies "have to run down their assets or borrow more just to pay interest on outstanding debt."

Any company with an ICR below 2.0 (which the IIF calls "stressed") will be "quite vulnerable" to any further increases in interest rates going forward. (About 20% of the firms examined fall into the "stressed" category.) The Federal Reserve's unwinding of its balance sheet could also pressure these borrowers, especially if they have outstanding high-yield debt. | VINCENT RYAN

Social Networks Must Address Privacy

The LinkedIn/hiQ case highlights the tension between the desire to protect users' privacy and the free flow of information. By Ron Moscona

What is more important—that LinkedIn should be able to control the commercial use of its vast database of users' "public profile" data (to protect the privacy of users, among other motivations) or that anyone should be able to access and exploit data that individuals choose to put in the public domain (in the interest of promoting an open and competitive market)?

A California court decided in August, albeit only at the preliminary stage, to favor the interests of competitiveness over privacy in granting a temporary injunction against LinkedIn.

The case against LinkedIn was brought by hiQ Labs, a data analysis business. HiQ scrapes publicly available profile data of LinkedIn users and analyzes it for its customers—employers and potential employers. One of its services promises to identify employees who are more likely to leave their current employer.

LinkedIn wanted to revoke the permission that allows hiQ to access LinkedIn's open website (which is accessible without registration or password) in order to enforce its user agreement that prohibits data-scraping activities. LinkedIn also wanted to put in place technical measures to prevent data scraping.

The plaintiff (hiQ) asserted various legal theories in support of its case, including alleged violations of California constitutional free speech principles and California competition law. It also claimed that blocking its access to the LinkedIn site would put it out of business.

Among other arguments, LinkedIn stated that hiQ's operations jeopardized its users' privacy interests, which it is entitled to protect. In particular, LinkedIn pointed out that its users often update their profile data or change their privacy settings and that they would not want third-party services such as hiQ's to use their old data regardless of their privacy choices. LinkedIn argued that its own services are designed to respect its users' privacy preferences, including in relation to historic data.

"At Best Uncertain"

Effectively, the court had to decide whether the privacy concerns raised by LinkedIn outweighed the competition and free speech grounds relied on by hiQ.

HiQ was able to point out that LinkedIn's corporate strategy identified data analysis services as an expansion area for its business, which would make hiQ a potential competitor. LinkedIn relied on statistics relating to its users' privacy preferences (showing that millions of users prefer not to notify other users when they update their profile data) and to point out a few incidents where users complained about third-party use of their profile data.

The factual evidence, however, seems to have had limited significance. At least for the purpose of the temporary injunction application, the court had to reach a decision largely on broad principles.

The court decided that the case did not raise a sufficiently serious question under California free speech constitutional principles. However, in weighing LinkedIn's desire to protect users' privacy interests against hiQ's accusations of anti-competitive behavior, the court found the latter to be more persuasive.

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The court did not entirely dismiss LinkedIn's privacy concerns. However, it largely discounted those concerns on the basis of evidence suggesting that LinkedIn itself may not have always respected its users' expectations of privacy. Perhaps more critically, it proceeded on the proposition that "the actual privacy interests of LinkedIn users in their public data are at best uncertain."

More than the result itself, it is perhaps this last statement that should be considered closely. The words chosen by the court may have been intended more as a comment on the evidence relied on by LinkedIn, but they also seem to express a general value judgment. That is, the traditional approach in common-law legal systems is that, once information is put in the public domain, it is no longer confidential and therefore no longer private. This, however, is no longer the approach reflected in modern privacy laws in many countries.

Modern Laws

The United States has been slow to develop federal privacy legislation, possibly as a result of Silicon Valley lobbying, which tends to resist restraints on the free flow of information. In many other countries, however, such as Canada and Australia, and in regions such as the European Union, privacy protection has developed significantly over the last two decades.

Modern privacy laws reject the idea that privacy interests are simply eliminated once an individual puts information in the public domain. There is, of course, a vast difference between private information which is also secret and confidential as opposed to information that a person voluntarily puts into the public domain. But the distinction does not exclude the fact that privacy interests continue to be relevant even in respect of "public" information. For example, in many jurisdictions subscribers can require their telephone numbers to be removed from public directories, even if the number was previously listed.

"In weighing LinkedIn's desire to protect users' privacy interests against hiQ's accusations of anti-competitive behavior, the court found the latter to be more persuasive."

—Ron Moscona, partner, Dorsey & Whitney

LinkedIn made the point plainly in its case against hiQ. Many professionals are happy to display their profile data publicly on the service. However, if a user decides to update her profile she may prefer not to advertise the fact that she made the change and she may also have a reasonable expectation that her old profile would disappear from the service. This can be important to people looking for a new job. An old version of a person's profile data might not project the right image or include the right information that a person wishes to advertise for future purposes. LinkedIn users expect the service to work for them, not against their interests.

As a matter of fact, it is difficult to accept the court's suggestion that LinkedIn users' interest in protecting their public data is "at best uncertain." Most users, if asked, would probably prefer that their historical information cease to be publicly available once they have updated it. Professionals join LinkedIn in order to advertise their skills and expertise, not to create a searchable archive of their past data.

The GDPR Looms

LinkedIn's concerns over its users' privacy interests and its decision to block hiQ may have been influenced by legal compliance considerations. LinkedIn, along with the rest of the digital industry, is undoubtedly acutely aware of the looming requirements of the General Data Protection Regulation—the EU's overhaul of its privacy laws, which will come into effect in the middle of 2018. Among the many compliance requirements that social network operators need to grapple with are the new rules regarding the "right to be forgotten." One aspect of these rules is that, under GDPR, operators of a social network would (in most cases) have to respect a user's request to erase or update his or her data.

Another aspect is that the law requires the social network operator to notify third-party recipients of the data of requests (from the subject) to update, correct, or erase the data.

It is not clear yet whether compliance with GDPR would require operators of social networks to prevent unauthorized data scraping by third parties, nor whether LinkedIn would be under an obligation to notify third parties such as hiQ of requests by its users to update or erase their public profiles. However, it is clear that LinkedIn's concern for the privacy interests of its users is not merely a ruse to rid itself of a potential competitor.

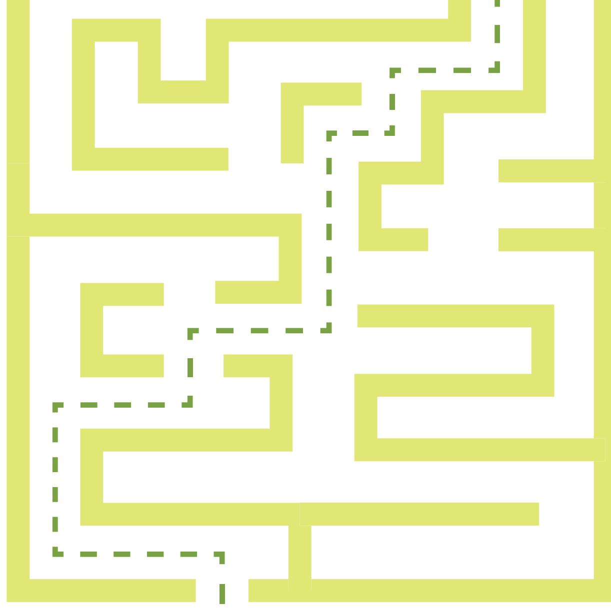
LinkedIn knows that in a legal environment, where privacy interests are taken seriously in many countries and where its users are increasingly concerned over the use of their own data, it cannot adopt a neutral position. It has to assume more control over the way data flows through and around its network. It may not be able to stop every third party from scraping or using its users' data, but it may need to demonstrate that it is doing as much as it reasonably can to protect the privacy interests of users. CFO

Ron Moscona is a partner at the intellectual property practice of international law firm Dorsey & Whitney.

Courtesy Dorsey & Whitney

The Best Path

Forward



CFOs blend new and old techniques in a quest for capital spending solutions that allow more flexibility.

"Money is everything," goes the old saw, and in the current economy, many U.S. companies are swimming in it. The pile of cash held by U.S. corporations is more than $2 trillion and growing, stoked by low-cost bond issues, stringent cost-cutting, and sizable profits. But success brings its own challenges, like the need to profitably allocate capital to meet the market's elevated expectations for forward earnings, as reflected in healthy share prices. With activist investors, other shareholders, and financial analysts on constant watch, deciding whether an investment is worth funding is not a job for the fainthearted.

The task, of course, lands squarely in the lap of the CFO, who carries the

By Russ Banham

Dave and Les Jacobs/Getty Images

banner for the business-planning process, “stitching together [the company’s] strategic growth plan and fundamental investment model, year after year,” says Mark Partin, finance chief of accounting firm BlackLine. But in a domestic economy that is potentially overripe and expanding at less than 3% a year, CFOs can’t just stick to standard operating procedure.

They are also confronted by the changing nature of capital investment in the United States, trending away from new machinery, new manufacturing plants, and other “hard” assets to things like research and development, staffing, and software. In many industries, budgets are less about updating old equipment and more about improving customer service, launching new products, securing corporate networks, and bolstering worker efficiency.

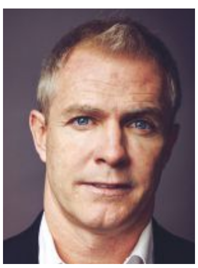
As where the cash is going changes, of course, so must the techniques used to screen investment projects. Many CFOs, it turns out, still deploy tried and true capital planning techniques like net present value (NPV) and internal rate of return (IRR). But others find that they are relying less and less on the old formulas: when speed is of the essence, often a straight return on investment is all that’s needed. So, what methods and models are informing CFOs’ capital investment decisions in the 21st century? How are they making the critical choices that shape their organizations’ futures?

Blurred Lines

Over the past 20 years, capital planning has altered dramatically, says Ken Stillwell, CFO of customer relationship management (CRM) software provider Pegasystems, who was a finance executive at several tech companies over that stretch.

“In the old days, capital expenditures were fixed—you were told ‘here is your capital budget and here is your operating budget,’” says Stillwell. “In my world right now, the lines between the two have blurred. For us and many other software companies, capital planning is all about [deciding what cloud systems to use].”

Partin, BlackLine’s CFO, suggests long-term capex decisions have gone the way of packaged software. Like many tech firms, BlackLine has transitioned into a cloud-based software-as-a-service (SaaS) provider. “Traditional capex has now been concentrated on cloud operations,” says Partin. “I’m making short-term decisions on cloud applications—is this particular solution the right one to help us grow and invest in the right kind of people? Will it give us a return on our investment?”



“The cycle of innovation in the tech sector is so blisteringly fast and the threats to data so prolific that our investment decisions need to be equally rapid and agile.”—Mark Partin, CFO, BlackLine

BlackLine’s capital spend is directed toward cloud applications that enhance brand, marketing, data security, and field-sales capabilities. But the company eschews long-term commitments. Each of Blackline’s cloud providers is signed up on an annual term basis, allowing for “quick ins and outs if we wanted that,” the CFO says. “We’ve distilled the capital planning process to ask ourselves if this is the right partner and the right investment.”

In handling decisions that way, BlackLine leans toward metrics like a vendor’s net promoter score (NPS), customer testimonials, and reputation instead of old tools like NPV and IRR.

The new metrics assist faster investment decisions, Partin says. “The cycle of innovation in the tech sector is so blisteringly fast and the threats to data so prolific that our investment decisions need to be equally rapid and agile,” says Partin. “Where we house our data, where we put our servers, what we put in them, and the systems we buy—all have to be able to adapt to new products, rapid growth, and new threats.”

Rigorous But Flexible

Speed and agility of decision-making is a common theme in capital budgeting these days. At Centage, a provider of automated budgeting and forecasting software, the process of analyzing capital spending is much easier now that the company has transitioned to a recurring revenue model with a predictable revenue stream, says CFO John Orlando.

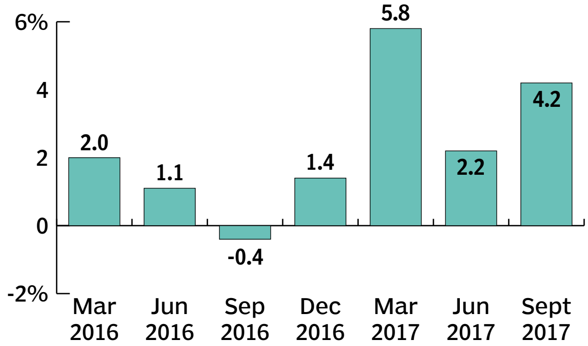
The company’s costs for hosting its solutions have to do with capacity planning—figuring out how many servers and how much bandwidth it will need, which is driven off of sales forecasts, says Orlando. Capital decisions are based on revenue expectations—what kind of business Centage hopes to sell and where it will sell it. “If we strategically want to grow 40% this year, we look at the investments we need to make to support that; if we can’t afford the investments, we lower our growth goals,” Orlando says. In making investments in cloud-based applications, there’s no need to take into account each one’s IRR or NPV, Orlando says, “just the ROI.”

An example of such an investment was the adoption of expense reporting solution Concur. Previously, Centage’s consulting team spent 3 to 4 hours per week reconciling their expense reports. Now that the process is automated with Concur, it takes them less than 30 minutes. That equates to savings of 25 hours per week for people billing $250 per hour. Centage’s accounting team also used

Courtesy BlackLine

Inclined to Spend …

Since the November 2016 presidential election, projections for capex growth have strengthened.*



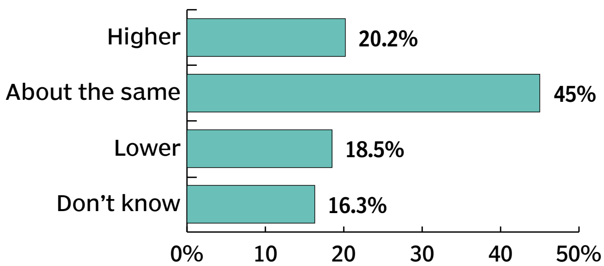
*Expected capital spending growth in the next 12 months

Source: Based on the quarterly responses of more than 300 CFOs to the Duke University/*CFO* Magazine Global Business Outlook Survey. Large firms weighted more heavily.

… With a Backlog of Growth Projects

Compared with three years ago, some CFOs have a growing inventory of projects that a net present value calculation shows they would profit from pursuing.

The number of positive-NPV backlogged projects that my company has is...



Source: 362 respondents to the Duke University/*CFO* Magazine Global Business Outlook Survey, September 2017

to spend 10 to 15 hours per month reconciling reports and chasing receipts; now the process consumes no more than 3 hours per month.

Instilling speed in capital budgeting is also key at Power Distribution, a manufacturer of electrical systems for corporate data centers. The company has invested in new product development; product extensions; acquisitions; R&D; factory capacity expansion; and people, its workforce growing 30% over the past five years. CFO David Hensley has to be able to alter this investment mix rapidly when circumstances warrant.

"The biggest challenge for us is how to create a rigid enough due-diligence process at the front end of our planning to make good business decisions, but have the process be flexible enough to allow for swift capital changes," Hensley says.

"It's harder with IRR to get a true apples-to-apples comparison if you have projects with different discount rates and risk profiles. It gets a bit wonky." —David Hensley, CFO, Power Distribution

Shifting resources quickly can be critical when many projects are fighting for a fixed pool of resources. CareCentrix, a home health-care coordinator, has had, like other services providers in its sector, a relatively flat capex budget for years, says Steven Horowitz, the company's CFO. For some capital expenses, Centrix has no choice but to greenlight them. For example, it has to invest in projects to comply with health-care regulations, Horowitz explains. "There's no need to do an ROI; we just try to do what's needed for the least amount of money," he says.

But for other projects, CareCentrix uses a fairly rigorous capital planning process that begins with a "project chartering" phase. That phase documents what the project is, the problem it is solving, what it will cost, and the value it will generate. Once a capital decision is reached, finance and the relevant department, function, or line of business review the progress of the project at a series of "gates" to determine whether or not to go forward.

"Before we go too deep, we make sure the assumptions are still correct," says Horowitz. "We may have to put more money into the pot or pull some out and put it into a new opportunity."

Horowitz relies primarily on return on investment to make decisions. Operating improvements and efficiency projects undergo a traditional ROI analysis, he says. "Other things, like a customer asking for a new capability, require a different analysis; [in those cases it's] more about whether or not we should do it and what it would cost," Horowitz explains.

Timing Matters

For many companies and types of investments, the timing (of both the capital outlay and the return) still matters very much, especially when the expenditure is very large. For example, Pegasystems has approximately half of its operating systems on-premise and the other half in the cloud. The process for choosing one or the other takes into account the timeframe of the anticipated investment return.

"We look at the problem we're trying to solve and how much variability we have in solving it," says CFO Stillwell. For example, an ERP system is a 10-year problem that requires an upfront capital investment, he explains. But when investing in a new marketing automation solution, "where I have no clue what [the market] will look like 10 years from now," Stillwell says, the answer is likely to be a SaaS product.

The Best Path Forward

In making those decisions, Stillwell still performs a 15-year discounted cash flow, an analysis that projects the investment's free cash flow into the future and then discounts this amount to arrive at a present-value estimate. The company's financial planning and analysis group built Pegasystems' DCF model, which requires significant post-calculation deliberations before finance doles out the funds.

Discounted cash flows, of course, are an important part of techniques like NPV and IRR that are used to evaluate new projects. Many CFOs still find substantial value in those formulas for certain kinds of expenses, even in the fast-moving tech space. Hodges-Mace, a provider of cloud-based employee benefits administration software, hinges its capital budgeting considerations to IRR and NPV outcomes, even though the company doesn't do much in the way of traditional capital projects, says Ron Shah, CFO and chief operating officer.

"We don't always pick the project the DCF says makes the most bottom-line sense."

—Ken Stillwell, CFO, Pegasystems

For example, Hodges-Mace recently invested in a sales team expansion, adding more feet on the street and sales support personnel. "The plan was to grow what were 20 people in those jobs to 40 over the next 12 months," Shah says. "We wanted to figure out the IRR on the investment before we took the plunge."

Shah ran multiple scenarios, evaluating the profit potential of adding 10, 20, and 30 people over different time periods. The IRR results indicated the greatest opportunity would come from adding 20 additional sales and support people over a 12-month period, albeit 10 people in the sec-

Fear of Failure

Even when the models say an investment deserves a green light, stronger forces may discourage an organization from moving forward.

Since the recession, functions like finance, risk management, and procurement have been "in ascendancy," says Tim Raiswell, finance research leader at CEB, a research firm. One effect of that: People generally don't get fired for being too careful, for cutting back on spending, or for not spending in new areas. Those are "default behaviors" at a lot of companies now.

So, what prevents the larger companies from taking the actions necessary for growth? CEB, which has been looking at this for years, has identified four major categories of what it calls "growth anchors," in the sense that an anchor weighs down a ship and prevents it from moving. One anchor is what CEB calls the "dangerous to fail" anchor.

The dangerous-to-fail anchor involves the role that negative consequences have in discouraging risk-taking. Given human nature, it may be unreasonable to expect managers to take risks that could stimulate growth if the penalty for failure is harsh.

"Executives feel they have to hold people accountable, but there should be a way to do that without sending a cultural message that it's one or two strikes and then you're done in the organization," Raiswell says. "Some organizations get into very difficult conversations that feel like public trials."

In some cases, a CFO or CEO may pay a price for a project that goes awry. But Raiswell says accountability typically is swifter and more material further down in the organization, "where it's easier to draw lines between a project failure and human agency."

If a project or growth investment isn't performing, consider whether the causes are controllable. That type of evaluation requires infrastructure processes that track progress and ask whether the original assumptions about why a project would win were accurate.

"That takes discipline to do, and maybe some additional financial resources to capture that information," says Raiswell. "Once the leadership team has that information, they can do a post-audit to talk about what was learned and what to [change] in the future. And the idea is then to reward people for putting their best foot forward on the project that failed. That's how you start to build the right muscle." | DAVID McCANN

Top to bottom: courtesy Pegasystems, Thinkstock ond half of 2018 and the remainder in the first half of 2019. "This way we would see a return on the investment occurring in 2019 from the people that had already come on board in 2018," he explains.

Another recent sizable investment—doubling the footprint of Hodges-Mace's Atlanta office—went through a similar exercise. The company plans to lease an additional 15,000 square feet (in its existing building) over the next two years. "Although we won't fully utilize all this space right off the bat, we learned from the analysis that it would be less expensive from a leasing standpoint to do one large expansion, as opposed to expanding gradually."

In drawing this conclusion, the analysis took into account several factors, including the real estate market in Atlanta and Hodges-Mace's expected 10-year growth rate. The projections compared short-term lease rates on a small expansion and long-term lease rates on an immediate, bigger expansion. The second option was more economical. "Plus, we would get an allowance for some tenant improvements to offset construction costs," Shah says. It was a `no brainer.'"

Tom Liguori, CFO at Advanced Energy Industries, a developer of power and control technologies used in semiconductor manufacture, also uses an IRR model. [In the company's industry,] "we all seem to have a lot of cash to invest and are looking at how best to deploy it—lining up our projects in a queue," Liguori says. In analyzing R&D projects, "we'll look at the technology we're developing over a five-year opportunity period, insofar as the costs to develop it and the expected revenues [are concerned], and then do an internal rate of return," Liguori says. "Every quarter we review these analyses to determine which R&D projects should be accelerated, changed, or killed."

But IRR isn't right for every situation. Aiming to achieve planning rigor with flexibility at Power Distribution, CFO Hensley relies predominantly on NPV ("our go-to"), since he thinks IRR is less flexible. "It's harder with IRR to get a true apples-to-apples comparison if you have projects with different discount rates and risk profiles. It gets a bit wonky," he says.

Hensley offers the following comparison: "Say we buy a piece of automation equipment to go in the factory. The probability of success in the IRR analysis will be really high. On the other hand, if we plan to launch a new product in a new segment outside our space, the probability of success will be the opposite. If you take this to the extreme, all we would ever do is automation projects, and we'd be out of business." NPV, on the other hand, takes into account the need for "intelligent risk-taking," Hensley says.

"The plan was to grow what were 20 people in those [sales] jobs to 40 over the next 12 months [but] we wanted to figure out the IRR on the investment before we took the plunge." —Ron Shah, CFO, Hodges-Mace

A High Bar

12% The median hurdle rate U.S. companies use to evaluate investment projects

9.8% The median weighted average cost of capital (WACC) for U.S. companies

26.2% Companies that pursue all projects expected to earn a return that exceeds their hurdle rate

89% Companies that do not intend to pursue all planned projects that would increase the value of their firms

Source: Duke University/*CFO* Magazine Global Business Outlook Survey, Q2 2017

When Math Fails

As Hensley has discovered, the techniques of capital budgeting can be biased toward certain kinds of projects and rarely give CFOs all the answers. In addition, it is often the riskier, hardest-to-measure investments that can be most transformative for a company.

When weighing potential takeover deals, for example, Advanced Energy's Liguori bases his decision on two hurdle rates—short-term and long-term. The short-term hurdle rate has to be equal to or better than a share repurchase over a five-year horizon. "We'll compare a $50 million acquisition to a $50 million (stock) buyback, looking at the earnings per share in each case," Liguori says. The long-term hurdle rate is the IRR on the cash flows generated by the acquisition. But Liguori can't always go with what his hurdle rate analysis dictates. "We don't want to be five years down the road and [realize] all we did was buy stock," he explains.

Pegasystems' Stillwell faces similar situations: the large, upfront bets can't always be avoided. "We don't always pick the project the DCF says makes the most bottom-line sense," Stillwell explains. "If three potential capital projects break even from a DCF standpoint, meaning we shouldn't invest in any of them, but one of the projects has considerable strategic upside, we'll take it on. Even though we know we'll lose money initially, we have to do it."

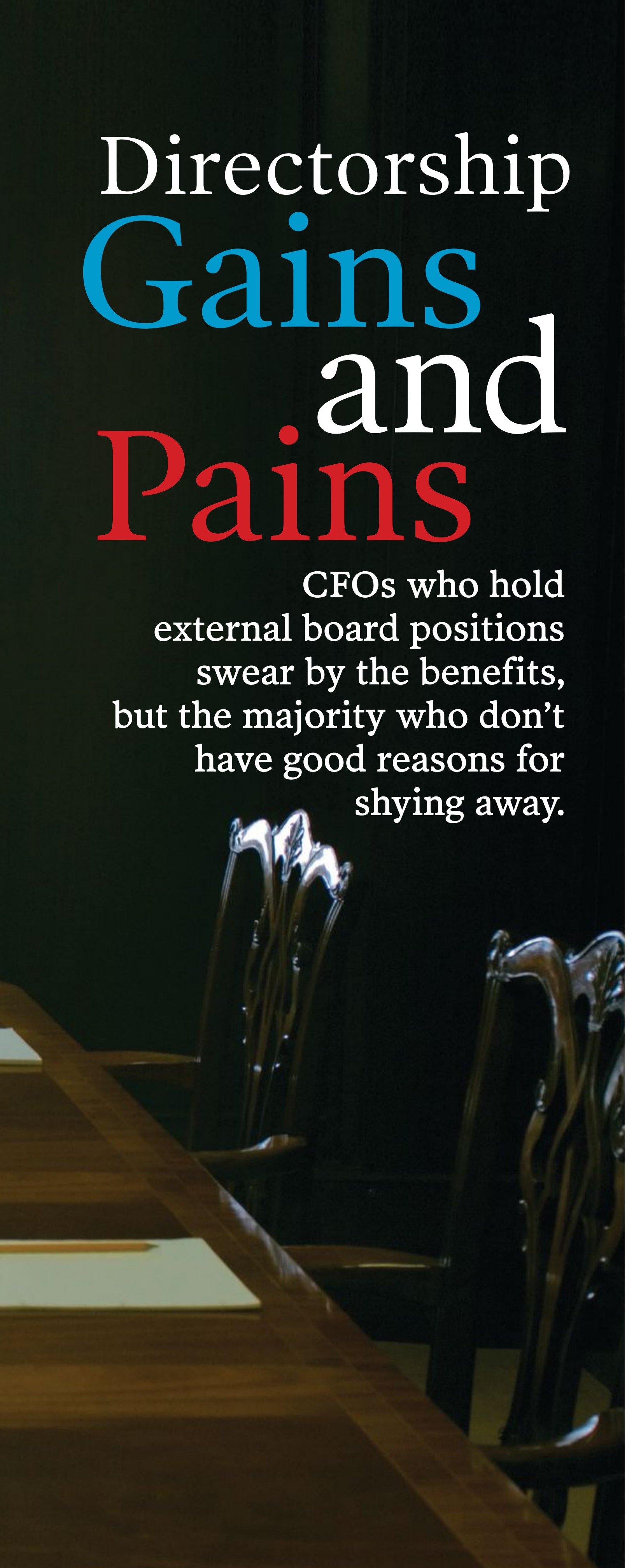
Pegasystems' April 2016 purchase of OpenSpan, a provider of robotic process automation software, was a case in point. The DCF model told Pegasystems' management to abandon the deal. "[The model said] it was too risky," says Stillwell. "But we knew it was critical insofar as where the market in enterprise CRM is going. In that case, quality trumped the math." CFO

Russ Banham is a veteran financial journalist and author and a longtime contributor to CFO.

Courtesy Hodges-Mace

Directorship Gains and Pains

CFOs who hold external board positions swear by the benefits, but the majority who don't have good reasons for shying away.



Running finance at a large, publicly traded company is, of course, a big job with long hours and little downtime. So why would a CFO want to expend time and energy serving on the board of another company? Turns out there are many reasons—intellectual stimulation, skills building, an education in boardroom dynamics. But do those benefits outweigh the potential headaches and risks that directors face?

Among CFOs at the 673 companies included in this year's editions of either the *Fortune* 500 or S&P 500, as of mid-August 250 of them (37%) were serving as directors of another company. That's according to research by executive recruiter Crist Kolder Associates. A majority of those CFOs (143 of the 250) do their outside service for a public company. That's generally more attractive than joining a private board but also more time-consuming, requiring about 200 hours per year, say CFOs who hold those roles.

Still, the number of finance chiefs serving on public boards hasn't budged in the past decade—in 2007, 141 CFOs at *Fortune* 500 or S&P 500 companies were doing so. What has changed is the availability of such board seats. For many reasons, including industries consolidating and a relative paucity of IPOs, the number of U.S. public companies has dwindled since the late 1990s. Further, the number of seats per board has fallen, in part for cost-saving reasons, says Ellen Richstone, a retired CFO and CEO who chairs the audit committees of four public boards.

Added together, these trends—a steady level of public board memberships despite the declining availability of seats—mean that CFOs now comprise a greater percentage of the universe of corporate directors. But, given the heightened pressure on board members arising from shareholder activism, in one sense CFOs (and other corporate executives) are actually seeking out fewer board opportunities. It used to be common for individual executives to be on multiple boards, but now it's rare, says Crist Kolder president Tom Kolder.

When he started in the recruiting business 20 years ago, Kolder says, he might have called about six potential candidates, and three or four of

By David McCann

Howard Kingsnorth/Getty Images

them would be intrigued enough to discuss the opportunity. His most recent board search was typical of how that scenario has changed: "We combed through no less than 100-plus profiles with the hope of getting that same [number of interested candidates]," he says.

STIMULATION, CONTRIBUTION, BETTERMENT

That said, many CFOs are still extremely interested in board service. Why? It's tempting to presume that money is a motivation. Board service at a large public company brings median total compensation of about $260,000 annually (see "Extra Earnings," page 37).

But it's unlikely that many big-company CFOs, already highly compensated for their day jobs, are motivated only by the prospect of monetary rewards. And if they are, they probably shouldn't be. At the least, they should also have a passion for the experience, says Frank Gatti, who was on the board of a public company for seven years before retiring from his CFO post at Educational Testing Service (ETS) in 2011. "I think it does happen sometimes, but if you accept a board seat because of money or because you're going to get stock or options, I really think that's a mistake," he says.

For Greg Beecher, finance chief at automation-equipment supplier Teradyne since 2001 and a board member at MKS Instruments, much of the allure is intellectual stimulation. "When you're inside a company for many years, you can see how everything that happens is going to unfold before it unfolds," he says. "Being on a board gives me a different environment to interact with other interesting people."

A directorship also helps Beecher strengthen his "synthesis skills"—the ability to encapsulate the complexity of a business and translate it in a way that's understandable to directors and others. It has also helped him as a CFO to see the value of reaching out to the more vocal directors prior to a board meeting, so that he "can fully respond to their concerns in an organized fashion rather be under the gun with the full board."

Beecher is equally interested in making a contribution. After a long career working on M&A deals, divestitures, restructurings, and oversight of high-growth businesses, he says, he wants to use all that experience to help a management team communicate its vital goals to its board. Joseph Reitmeier, CFO of commercial heating and cooling company Lennox International, also sees the opportunity to contribute his experience as a primary motivation. As a board member at Watts Water Technologies, Reitmeier helped that company navigate relationships with third-party distributors and implement some aspects of Lennox's three-tier distribution model.

But Reitmeier also views getting board experience now as greasing the skids for a longer-term goal. "I'm not ready to retire just yet," he says. "Maybe in 10 or 15 years. But if I held a couple of board seats during retirement that would

keep me active."

Another appeal of board service is the opportunity for CFOs to learn how to communicate better with their own internal boards. "Understanding what goes on in a boardroom and why questions get asked allows you to better anticipate the needs, wants, and requirements of your [internal] board," says Richstone.

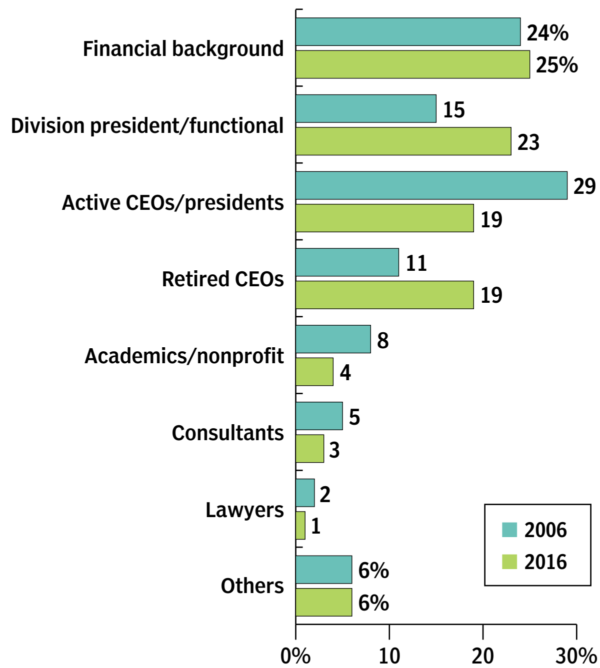
CONCRETE BENEFITS

Not only can board membership allow CFOs to hone certain skills, it also can help them improve their employers' businesses. For example, Reitmeier saw Watts using robotic process automation for high-volume but routine transaction processing, and now that's something Lennox is looking into.

Heath Mitts, finance chief at TE Connectivity, a maker of connectors and sensors for harsh environments, learned valuable intelligence about doing business in China from hoists and riggings company Columbus-McKinnon, where he is a director. When Mitts was running finance for IDEX (another sensor company that he left to join TE last year), Columbus-McKinnon began a greenfield project to become

Who's Getting on Boards?

The proportion of incoming board members* with financial expertise has held steady for the past decade, while the representation of some other backgrounds has been in flux.

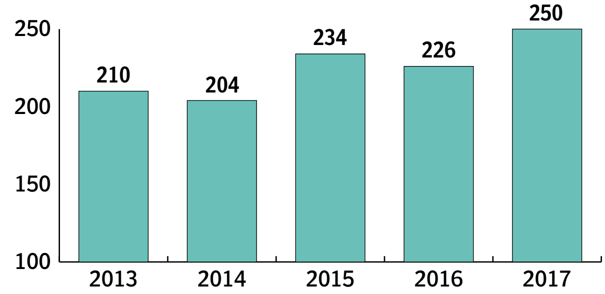


*Independent directors elected to the board within the given year

Source: Spencer Stuart 2016 Board Index

More Boarders

The number of CFOs on external boards* has increased over the past five years.



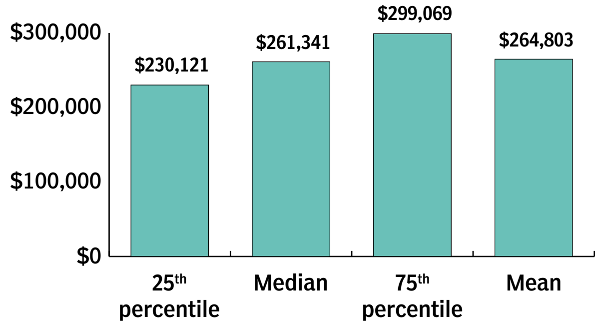
*Sitting CFOs at *Fortune* 500 and S&P 500 companies, as of August 1, 2017, who are on external boards of public or private companies

Source: Crist Kolder Associates

Extra Earnings

Given the typically high compensation CFOs earn at their full-time jobs, what they get for serving on external boards is a nice stipend but not likely the main reason for taking on the extra duty.

Total 2017 compensation for nonemployee corporate directors*



*At 300 publicly held *Fortune* 500 companies that filed their 2017 proxy statements by June 30

Source: Willis Tower Watson

a local supplier in China. IDEX had manufacturing operations there but had struggled to evolve into a primarily local supplier. "Seeing how they set that up was interesting and helpful," Mitts says.

Frank Gatti had an "ah-hah" moment of sorts as a director at educational technology company Blackboard, which he joined just before its IPO in 2004. Board members provided Blackboard's young, inexperienced CEO with mentorship and knowledge in their areas of expertise and steered him to organizations that help young entrepreneurs develop into more mature and effective executives.

Those efforts underscored the need for a robust management succession plan: Who would take over in an emergency? Using a matrix approach that integrated succession planning with strategic and risk considerations, Blackboard's directors implemented an annual assessment of succession not only for the CEO but for his direct reports and their direct reports as well. "When you lay out that type of matrix, you find out that you don't always have names to put in every one of those cells," Gatti says. "That means you have to think about whether to groom someone or bring someone in from the outside."

Having helped polish the process at Blackboard, Gatti took the opportunity to mimic it at ETS—not only for the CEO and two levels of reports, but for all the teams that reported to Gatti, which included facilities, security, business continuity, disaster recovery, and two business units.

"Understanding what goes on in a boardroom and why questions get asked allows you to better anticipate the needs, wants, and requirements of your [internal] board."

—Ellen Richstone, a retired CFO and CEO who chairs the audit committees of four public boards.

CAUTION AHEAD

CFOs who are on outside boards are in the minority, though, for understandable reasons. First, in most cases the CEO must sign off on the extracurricular activity. That's unlikely to happen when the finance chief hasn't been in the role that long, or when the company is having problems. Some CEOs may simply oppose the idea.

Then there's the time commitment. "It's a balance, but it adds to your workload," says Mitts. "A couple of years into it I'm more efficient, but there was a ramp-up period in the first year." Even for experienced CFOs dedicated to being a good director, there's still much to do. When Mitts is traveling for his own company (TE Connectivity), if he happens to be in an area near a Columbus-McKinnon site, he sometimes arranges a visit to see what that company's teams are doing. "It's not just about showing up for board meetings and voting yea or nay," he says. "Don't assume you're just in a figurehead position."

Indeed, directorship requires greater diligence, notes Beecher. "Ten to fifteen years ago, a powerful chairman could control everything," he says. "Now you have to take shareholder activism seriously, and more time is spent on matters like cybersecurity, business continuity, financial risk, and financial statements."

While shareholder activism is primarily a concern for large companies, the small-company equivalent is aggressive plaintiffs' attorneys, says Glenn Muir, finance chief for medi-

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cal equipment maker Hologic for 22 years until his 2014 retirement. He now chairs the audit committees of three public boards.

"With every IPO, [the stakeholders] want the stock price to go up," Muir says. "Unfortunately, we live in a world today where if the price goes down, [the company is] likely to be hit with a class-action shareholder lawsuit." Such litigation usually claims that the IPO prospectus contained insufficient disclosures or misleading statements. What's especially disturbing to directors is that the lawsuits name as defendants not only the company and its investment banker, but often individual directors as well.

Multiple class-action suits have been filed in the past year against ReWalk, maker of a bionic walking assistance system and one of the companies for which Muir is a director. He and others recommend that CFOs planning to join a board think about the potential liability, find out the company's indemnification policy for board members, and have an attorney review the directors' and officers' insurance policy.

But all of that may not be sufficient to fully protect directors in the event of litigation. "I think that over time [the prevalence of lawsuits is] going to affect the quality of the pool of available directors," says Muir. "Those with the most experience and financial resources [already] shy away from boards to a certain extent."

Potential litigation aside, directorship carries the potential for reputational risk. When deciding whether to join a board, "consider whether these are people you want to be associated with," says Richstone. "When the going gets tough, will you want to be in the boat with them?"

"I think that over time [the prevalence of lawsuits is] going to affect the quality of the pool of available directors." —Glenn Muir, board member, ReWalk

DO'S & DON'TS

For someone who has fully evaluated the risks and still wants to be a director, how can that goal best be accomplished? First, a CFO needs to possess a broad perspective, a business acumen that extends beyond one's functional area of expertise, an understanding of strategy and tactics, and an appreciation for the difference between management and directorship, says Kolder.

Richstone suggests "spending time where directors spend time"—attending meetings of director organizations, audit-committee programs offered by auditing firms, and director institutes that some law firms provide. CFOs should also form or maintain relationships with executive recruiters, even though only about 20% of board seats are filled by searches, according to Richstone and others. Beecher suggests that a CFO also enlist assistance from his CEO, who likely has more external contacts. "No one wants to bring an unknown onto a board," he says. And, according to Richstone, don't appear too eager. "It's not like looking for a job," she says. "If you're too available, they won't want you."

CFO directors should also be wary of boards where activists, debtholders, or certain investors demanded and won seats. "It could be fairly dysfunctional if the board isn't aligned to the shareholders it's supposed to be representing," Mitts says. Scheduling could be troublesome too, Mitts notes, if both the CFO's company and the one whose board he or she sits on have the same fiscal year.

Once a board seat has been secured, the best advice is to treat it as seriously as a full-time job, proportional to the time spent on each. "If you don't feel as passionate about the product or service of the board's company as that of your own, it might not be the right board for you," says Gatti. "You need to care." CFO

David McCann is a deputy editor at CFO.

Board Pay Breakdown

Here's what CFOs can expect to earn, by type of compensation, for serving as a director of another company.

Pay type*	Median Pay	Prevalence**
Common stock	$137,500	15%
Deferred/phantom stock	145,000	19
Restricted stock	142,127	65
Stock options	77,971	6
One-time stock†	130,900	9
Cash retainer	95,000	97
Board meeting fee	1,500	13
Committee cash retainer	10,000	31
Committee meeting fee	1,500	20
Committee chair extra retainer	$15,000	94%

*Stock-award compensation figures based on "expected value"

**Percentage of companies offering that form of compensation. Data based on the 300 publicly held *Fortune* 500 companies that filed their 2017 proxy statements by June 30, 2017.

† Other types of stock awards are annual/recurring.

Source: Willis Towers Watson

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Mind Games

Confusion over what "artificial intelligence" is—and is not—poses challenges for CFOs. **By David McCann**

Lee Coulter arrived at a point when he recognized within himself a chronic "near-medical-level" case of frustration. After decades as a shared-services executive and ceaseless immersion in that function's accelerating technology requirements, he came to the conclusion that he didn't know what anyone was talking about anymore. ¶ That's because everyone in his circles was talking about "artificial intelligence" and using buzz phrases like "machine learning" and "cognitive computing." These terms, like the concepts they represent, defy precise definitions—and there are many imprecise, even inaccurate answers to the question, "What is artificial intelligence?"

"I don't know what or whom to believe," says Coulter, CEO of the shared services subsidiary of Ascension, a large health services provider. "You can't have a meaningful conversation about [artificial intelligence] with two different people."

Coulter is doing something about the problem. In 2016 he successfully pitched to the IEEE Standards Association the idea of assembling a working group that would start by settling on definitions for the various categories of robotic and "smart" technologies that reside at the leading edge of corporate automation.

The IEEE Working Group on Standards in Intelligent Process Automation, chaired by Coulter, is aiming to finalize the first phase of its effort—called "Terms, Nomenclature, and Concepts"—in 2018. And work has already begun on a second phase, "Technology, Taxonomy, and Classification."

In the meantime, though, the lack of a common, clear definition of AI is a potentially troublesome issue for CFOs when deciding on new technology purchases, especially given the current proliferation of new vendors pushing AI or machine-learning solutions. "So many vendors are out there saying they have AI within their products. Most of the time, that's a load of bull," says Coulter, echoing many other enterprise technology experts. But the confusion over AI also could cause finance chiefs to become too cautious.

"A lot of this AI stuff can't be broadly applied just yet so as to provide the payback CFOs want. A vast majority of them don't see the value."

—Weston Jones, global robotics and intelligent process automation leader for Ernst & Young

They may underrate the possible long-term value that might be attainable from steadily adopting such technologies, even when they're still untested and imperfect.

Early Days

How are AI and machine learning best defined? In general, both AI and machine learning are used to classify things and predict outcomes based on crunching big data. Here's a short definition of AI offered in a June 2017 report by McKinsey: "the ability of machines to exhibit human-like intelligence—for example, solving a problem without the use of hand-coded software containing detailed instructions."

As for machine learning, which many consider a subset of or stepping stone to AI, the IEEE group's working definition may be a bit harder to grasp: "detection, correlation, and pattern recognition generated through machine-based observation of human operation of software systems along with ongoing self-informing algorithms ... leading to useful predictive or prescriptive analytics."

At least 1,000 startups with products that include purported AI and machine-learning capabilities launched in the past two years, Coulter says. CIOs bent on playing with "shiny new objects" might be taking the bait, but few CFOs are. Acquiring technology billed as AI is a particularly dubious proposition. While the concept of AI is at least

60 years old, only in recent years have computational horsepower and the size of datasets reached levels where it could be practical for a wide spectrum of use cases.

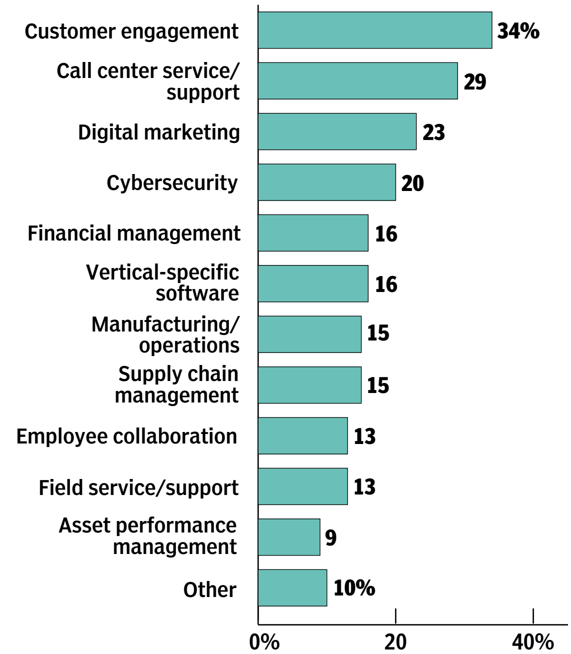
What are those use cases? Insurers and claims adjusters are deploying advanced "machine vision" technology to triage accident damage to automobiles based on photos submitted by clients. Credit-card issuers are using programs that scour the public Facebook pages of cardholders to understand how events like marriages and births impact spending habits. Manufacturers are using machine-learning technologies to more easily spot defects like wrong colors, shapes, and packaging. And many companies with customer-service operations are using website chat-bots based on natural language processing.

The fact is, though, that most solutions hyped as AI-driven are very unlikely to solve companies' most profound problems. A recent publication of the Shared Services & Outsourcing Network, called "Global Intelligent Automation Market Report" and co-authored by Coulter, notes that most things labeled as AI are "limited cognitive solutions centered around a very narrowly defined knowledge domain." Weston Jones, global robotics and intelligent process automation leader for Ernst & Young, puts it differently: "Innovation gets meetings, but improvements get funded," he says. "A lot of this AI stuff can't be broadly applied just yet so as to provide the payback CFOs want. A vast majority of them don't see the value."

Giant technology companies are the exceptions. They spent between $20 billion and $30 billion on AI technology last year, according to the McKinsey report. For example, Google uses "reinforcement learning," an AI-related capability, to reduce power consumption in its data centers by more than 10%. Facebook and other social media firms use automatic language translation on their sites, vastly improving customer engagement.

Eclectic Application

Organizations have integrated artificial intelligence into a range of existing applications and solutions.



Source: Gartner, July 2017 survey of 80 Gartner Research Circle members

Still, McKinsey writes, overall there is only "tepid" demand for AI in the business world. In a recent survey of more than 3,073 "AI-aware" C-level executives, the management consulting firm found that not only are many business leaders uncertain what AI can do for them, they also struggle with "where to obtain AI-powered applications, how to integrate them into their companies, and how to assess the return on investment in the technology."

Only 20% of the survey respondents said they were using any AI-related technology at scale or in a core part of their business, according to McKinsey. But it's unclear what that means, in terms of truly quantifying the extent of such technologies' penetration into the corporate world. "AI covers a broad range of technologies and applications, some of which are merely extensions of earlier techniques [while] others ... are wholly new," the report acknowledges.

Further, the McKinsey report notes, "There are several ways to categorize AI technologies, but it is difficult to draft a list that is mutually exclusive and collectively exhaustive because people often mix and match several technologies to create solutions for individual problems."

But if companies aren't yet willing to make investments in AI, at least they're interest level is rising. Whit Andrews, lead artificial intelligence analyst for Gartner, says the number of AI-related inquiries to the firm shot up by 200% in 2016 and is up a further 100% in 2017.

Just about all *Fortune* 1000 companies are at least looking into machine learning, according to John Parkinson, a longtime technology strategist and an affiliate partner with Waterstone Management Group. Among the relative few that are actually using or nearly ready to employ some applications, some are using off-the-shelf software, some are renting machine-learning capabilities in the cloud, and some are developing their own systems.

Parkinson doesn't have anything to say about companies' use of AI. In fact, he suggests that "intelligence" is an unfortunately misleading word in this context that could trip up technology buyers. Nobody actually knows how human intelligence works, he says, so the idea that software could be written to mimic it is "farcical."

"I don't care what IBM says about Watson," he adds, referring to the tech heavyweight's positioning of its high-profile knowledge system as an AI platform. "It's not cognitive at all. It's very clever software that's been trained using a mathematical model."

Bit by Bit

CFOs might begin to appreciate the potential value of AI and machine learning if they can get over the idea that automation of this kind has to have a large, immediate payoff. "We're telling [clients] not to approach this as a traditional IT project," says Gartner's Andrews. "For many organizations, whatever they're going to do with AI, it may not pay back in the classic formation. Characterize your ROI as the demonstration of the lessons you will be learning that are unique to you."

To begin, Andrews counsels that companies should look for individual AI solutions to address problems they've never had enough people to overcome. In all likelihood, fixing such problems will not be transformative. Indeed, trying for a moonshot in the early days of using AI may be fraught with danger. "When organizations begin by trying to transform themselves, they place themselves in a position where they face a tremendous amount of risk," Andrews says.

If a company were to apply "intelligent" automation to, say, 10% of its operations, it could see some benefits relatively quickly, according to Parkinson. But the real payoff would come much later, from steadily chipping away at processes that will become more efficient when automated. "More and more routine business work will get subsumed into automatic systems," he says.

Jones of EY advises that companies do a complete assessment of existing and foreseeable projects in order to identify and rank the business cases for addressing them with advanced automation. It's a crucial step, he says, because EY estimates that, at this point, 30% to 50% of AI-type projects fail. But it's important to understand that advanced automation cannot overcome a lack of data or data that can't be trusted. "AI is not a magic way to reveal value within data," Andrews says.

That means companies will experience greater and greater demand for data scientists. A severe shortage of them is widely expected to materialize in the next few years. But many companies that do hire such positions are destined to be disappointed, according to Coulter. "Graduating with a degree in data science does not mean you're a data scientist," he says. "If you've successfully applied machine learning to something for 5 or 10 years, you can start to call yourself a data scientist."

External Effects

Companies in general, and finance departments in particular, may also be significantly influenced by external parties' use of AI and machine learning. For example, several major accounting firms reportedly are working to transform the auditing process so that it examines 100% of transactions rather than small random samples.

Also, one Big Four firm is working on a product based on IBM Watson technology that could radically reduce the time and effort companies spend in the merger and acquisition due-diligence process. The product, said to be on tap for release within two years, is being designed to consume all available information about any particular company—structured and unstructured data alike—and produce a precise valuation estimate with a high degree of confidence.

"I don't care what IBM says about Watson. It's not cognitive at all."
—John Parkinson, affiliate partner at Waterstone Management Group

Such a capability may not, as Parkinson notes, be evidence of intelligence. At the same time, an interesting thing about technology classified as machine learning-enabled is that it actually works better than the theory on which it's based says it should. "And we don't know why," Parkinson says.

At a base level, it's trial and error that allows the development of technology that no one fully understands. "We, the people who work in this field, are always looking at better ways to work at the edge of what software systems can do and [identify] the exceptions that will drive us to build better and better core systems," says Parkinson. "That will continue to accelerate. And as we hook those systems up to each other, we're going to discover things they do in combination that we haven't predicted."

However someone defines the capabilities that drive the cutting edge of corporate automation, they're only going to get bigger and better. CFOs have to decide whether to start tapping into the well of opportunity. CFO

David McCann is a deputy editor of CFO.

Investments by the Numbers*

Despite tepid demand from organizations generally, some parties are making large bets on AI.

SOURCE	INVESTMENT AMOUNT
"Technology giants"	$20 billion to $30 billion
Startup companies	$6 billion to $9 billion
Venture capitalists	$4 billion to $5 billion
Private-equity firms	$1 billion to $3 billion
Grants and seed funding	$1 billion

*Estimated 2016 volume of investment in AI
Source: McKinsey

Brother, Can You Spare a Manager?

Tight labor markets are inhibiting corporate expansion, according to the third-quarter Duke/*CFO* Business Outlook survey. By Chris Schmidt

The U.S. labor market continued to tighten, causing companies to pass up valuable investment projects, according to the results of the third-quarter Duke University/*CFO* Magazine Global Business Outlook Survey. Most tellingly, the survey of 850 CFOs found that 89% of companies do not intend to pursue all planned projects that would increase the value of their firms, with the inability to hire the right employees being a binding constraint for about half of them.

For the second quarter in a row, and for only the second time in the 21-year history of the survey, the top concern of U.S. CFOs was difficulty attracting and retaining qualified employees. The same worry ranked highly in many places around the world. Pushed one notch lower on the list of top concerns in the U.S. were the usual suspects of CFO insomnia: the cost of benefits (respondents expect health-care costs to rise by 8.6% in the coming year), government policies, regulatory requirements, and economic uncertainty.

Specifically, U.S. firms were having a much harder time finding the capable managerial talent to support growth initiatives, and a somewhat harder time hiring rank-and-file workers. In addition, many U.S. companies indicated that their currently employed managers do not have enough bandwidth to oversee an expanded organization.

Positive Outlook

Despite the talent deficit, U.S. CFOs remained optimistic about the domestic economy. The survey's CFO optimism index for the United States fell by one point last quarter, to 65.9 on a 100-point scale, but it is still far above the long-run average of 60. U.S.–based CFOs remained optimistic about their own firms' performance as well, rating their optimism about their companies' own financial prospects a point higher in the third quarter, at 70.2. (See charts.)

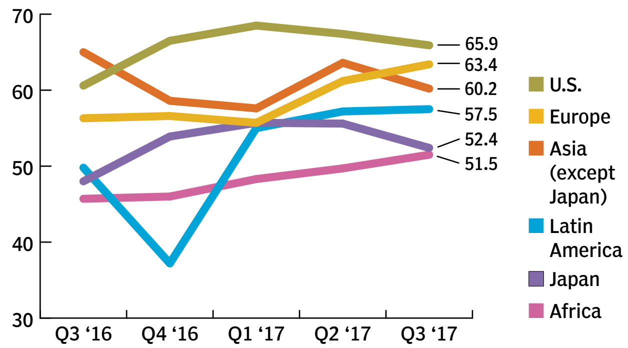
Across America's northern border, in Canada, CFOs were also feeling largely upbeat. The economic optimism of finance chiefs in Canada was down slightly, but still registered a robust index reading of 64. A recent interest rate hike by the Bank of Canada confirms what CFOs sensed: the Canadian economy is on a roll. Finance executives' growth projections for 12-month capital, technology, and R&D spending all rose in the third quarter. It remains to be seen whether the economy is beginning to overheat. However, 56% of CFOs at Canadian firms said a managerial labor shortage prevented them from pursuing all value-enhancing projects, and 42% of them indicated that a shortage of nonmanagerial labor was also constraining their growth pursuits.

Economic optimism was up two points in Europe, hitting 63.4. Capital spending will grow an average 6.6% in the next 12 months, estimated European finance executives, with flat employment growth expected. For the first time, the top concern among European CFOs surveyed was attracting and retaining qualified employees, followed by economic uncertainty, governmental regulations, and productivity.

Thirty-six percent of European finance executives said that managerial labor shortages caused their companies to pass up value-increasing projects. When asked, European CFOs said they are slow to increase the managerial workforce or hours worked for three main reasons: it was hard to get new managers up to speed, top management did not have the bandwidth to oversee additional projects, and hiring more managers would reduce organizational focus. On the nonmanagerial side, European firms found it difficult to hire workers possessing the required skills and were hesi-

Economic Optimism Rises in Multiple Regions

Finance executives rate their optimism about their domestic or regional economy*



*On a scale of 0–100, with 0 being least optimistic tant to hire more workers now due to the difficulty in laying off people later if circumstances change.

Up and Down

Outside Europe and the United States, CFO sentiment was more of a mixed bag. Optimism was somewhat lower in Asia (except Japan), at 60.2, down from 63.6 in the second quarter. Company confidence also fell in the third quarter, to 62.5 from 68. Economic uncertainty, difficulty attracting employees, government policies, and weak demand for products were the top worries of the region's CFOs. Flat employment growth was forecast, but half of Asian companies indicated that a shortage of managerial talent was preventing them from pursuing value-enhancing projects. Financial constraints were the top factor driving the shortage of managerial workers, but the inability to get new managers up to speed quickly was also a hindrance.

As in most economies, Asia faced a dearth of IT talent, with 78% of CFOs saying it adversely impacts their organizations. The shortage was most acutely felt in the innovation/product development support, sales and marketing support, and operations support areas. There were signs, however, that some Asian economies may be cooling: most survey respondents indicated that their companies have fewer backlogged value-enhancing projects now compared with three years ago.

In Latin America, the level of optimism was still relatively low compared to most other regions (57.5). But the area's CFOs were much more optimistic than they were one year ago. Economic optimism improved the most in Brazil. For the entire region, company confidence rose slightly, increasing to 65 from 63.6. But with some parts of Latin America still volatile politically, economic uncertainty remained far and away the top concern among CFOs, with 70% of firms listing it among their top-four sources of angst. Finance executives in the region were also concerned about governmental policies, weak demand, and access to capital.

Latin American CFOs were less likely than those in the United States, Europe, and Asia to say that they bypass value-enhancing projects or were experiencing a managerial labor shortage. Among those companies that were struggling to hire the right management team, however, half said that financial constraints prevent them from hiring adequately and 38% said it was difficult to get newly hired managers up to speed quickly. About one-third of companies indicated that a shortage of IT workers was moderately or severely affecting them; among these companies, the greatest shortages were in innovation and operations support, big-data analysis, and competitive intelligence.

At the bottom of the economic optimism index was Africa. But the region's CFOs have become increasingly optimistic in every quarter over the past year. Economic optimism hit 51.5 in the third quarter, up from the second quarter's 49.7. Growth projections strengthened for earnings and revenue over the next 12 months, as did planned spending on technology, marketing, and wages and salaries. Capital spending should increase by about 3%, CFOs in Africa said, while employment growth will be flat.

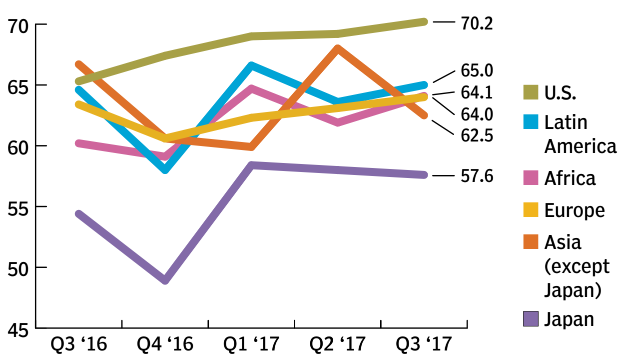
The biggest concerns for CFOs of companies in Africa were the mainstays: economic uncertainty, governmental policies, political volatility, and corruption. Only about one-third of African companies indicated that shortages of managers or nonmanagers restricted their ability to expand. To the extent there is a shortage of desirable managerial candidates, the region's CFOs are uttering a problem that may bedevil global CFOs for the rest of the year: the difficulty finding candidates with the necessary skill sets. CFO

39%

U.S. companies surveyed that said a shortage of management time or expertise prevented their firms from pursuing some value-enhancing projects

Company Confidence Strengthens In the U.S. and Europe

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



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

Source for all charts: Duke University/*CFO* Magazine Global Business Outlook Survey of finance and corporate executives. Responses for the current quarter include 400 from the U.S., 79 from Asia (outside of Japan), 22 from Japan, 163 from Europe, 150 from Latin America (including Mexico), and 29 from Africa.

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Leaving Pension Management, and Pension Risk, Behind

A shifting economic and regulatory environment is driving increased pension risk–transfer activity. By Chris Schmidt

For several decades, corporate America had been looking for ways to shed the increasing costs and performance risk of sponsoring traditional, defined-benefit (DB) pension plans. Freezing plans by halting the accrual of future benefits had become a popular strategy. But plan sponsors that did that were still on the hook for funding benefits that had accrued, as well as for overseeing plans for decades to come as plan participants and beneficiaries continued to draw benefits.

Five years ago, General Motors and Verizon Communications surprised much of the pension community when they undertook on a grand scale what until then had been a relatively obscure strategy for shedding pension risk: purchasing a group annuity to cover some of their DB plan's pension liabilities. Since those two starter megadeals, the strategy's popularity has surged.

In a typical transaction, the plan sponsor transfers to the insurer securities and cash equal in value to the benefit obligation the sponsor wishes to shed. The transfer is usually a portion of the sponsor's total obligation, since shedding the entire obligation at one time could be prohibitively expensive. Once executed, the transaction moves the pension liability from the plan sponsor's balance sheet to the insurer's balance sheet, and the insurer becomes responsible for paying all future pension benefits to plan participants covered by the agreement.

Drivers of Change

What's prompting an increasing number of DB plan sponsors to consider transferring some or all of their pension benefit obligations to an insurance company? A recent CFO Research survey, conducted in cooperation with Prudential Financial, found that, of 80 senior finance executives at U.S. companies that sponsor DB pension plans, more than 4 in 10 respondents (45%) said their firms had already completed a pension risk transfer.

Respondents who had completed a risk transfer indicated that their decision to purchase a group annuity had been driven by a broad list of factors, but a desire to manage total pension costs—including mitigating the impact of increased premiums paid to the Pension Benefit Guaranty Corporation (PBGC)—was high on their list. (See Figure 1.)

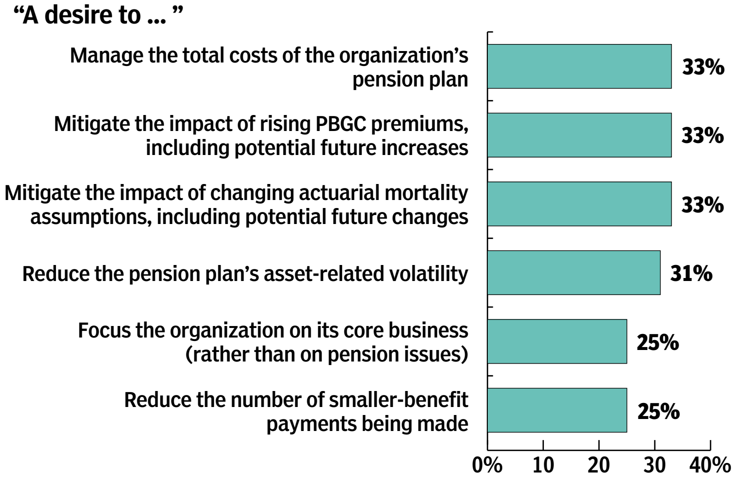
The survey also found that among DB plan sponsors who had not yet purchased a group annuity to transfer pension liabilities, nearly half (49%) said they had discussed such a transaction with an external organization, and more than one in five (21%) said they expected to execute such an agreement in the next two years.

Among the developments driving this pivot to pension risk transfers are actual and anticipated changes in the regulatory and economic environment. The desire to lock in the current value of a pension liability, rather than watch

FIGURE 1

What were the most important factors in your organization's decision to pursue a group annuity purchase?

"A desire to ... "



Multiple responses allowed
Note: Asked of respondents who had transferred risk

it float (and potentially rise in value), is often a key factor in the decision to transfer the risk.

For example, more than one-third (36%) of survey respondents that had not transferred risk said that recent increases in the per-participant premiums their plans paid to the PBGC, and the prospect of further increases, were making it much more likely that their companies would consider a near-term group annuity purchase.

Nearly as many survey respondents, 33%, said a recent change in actuarial mortality assumptions, and the prospect of further changes, also made it much more likely that their organizations would weigh a pension-risk transfer. Finally, more than 1 in 4 respondents (28%) said they were being pushed in that direction by the increase in interest rates from a year ago, as well as prospects for further interest rate hikes. By contrast, fewer than 1 in 10 respondents (9%) said tax reform allowing for the U.S. corporate repatriation of profits held oversees would motivate them to pursue the annuity route. (See Figure 2.)

However, more than half of survey respondents (55%) said that if Washington enacts tax reforms that lower corporate tax rates, their companies would likely use the tax savings to increase funding of their defined benefit pension plan and execute either a full or partial liability transfer via a group annuity. (To make the agreements work for insurers, plan sponsors must fully fund the benefit obligation they're transferring to an insurance company.)

Where to Begin

More than 4 in 10 survey respondents (43%) said that if they conducted a liability transfer transaction, they would begin

83%

Finance executives whose companies have purchased group annuities that said they were satisfied with all aspects of their agreements

with a partial transfer of their pension liabilities and then follow with the purchase of additional annuities over time. Complete transfers can be challenging; most corporate pension plans today are not fully funded. (The aggregate funded status of the largest U.S. pension plans fell to 83% in August 2017.) And CFOs are not likely to tap banks or the capital markets to cover the shortfalls. Fewer than 1 in 5 survey respondents (18%) said their organizations would likely borrow or issue debt to more fully fund their plan prior to a risk transfer.

A common annuity purchase strategy is to target liabilities for retirees first, since they're the least expensive group to annuitize, and to then focus on retirees who are receiving low monthly payments. Because PBGC premiums are charged on a per-capita basis, rather than on the amount of the benefit, significant pension risk can be mitigated by annuitizing retirees who receive small benefits.

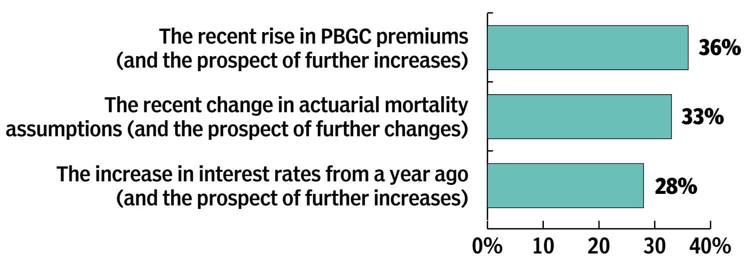
Finance executives whose companies had transferred pension risk using group annuities reported outcomes in line with expectations and suggested they'll be doing more such agreements in the future. Among the survey respondents whose companies had purchased group annuities, more than 8 in 10 (83%) said they were satisfied with all aspects of their agreements, and nearly three-quarters (72%) said they were likely to undertake more such transactions to further whittle down their pension liabilities.

In addition, among the survey respondents who had purchased a group annuity to transfer pension liabilities, more than 8 in 10 (81%) agreed that plan beneficiaries affected by the transaction were content to receive their pension payments from an insurance company. In addition, a stronger majority (86%) of respondents said they believed the arrangement offered those participants greater retirement security in the long run.

For many CFOs, it appears that group annuity purchases to transfer pension obligations are successfully meeting the risk management needs of the enterprise. At the same time, these agreements continue to faithfully fulfill the enterprise's pension obligations. Not surprisingly, the survey found that most finance chiefs welcome the opportunity to leave their DB plan obligations behind: the performance risk that accompanies a DB pension is better off in the hands of an organization that is a specialist in managing it. CFO

FIGURE 2

Which specific events would make it much more likely your company would consider a group annuity purchase in the near term?



Note: Asked of respondents who had not transferred risk

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Stormy Weather

Even before the autumnal equinox, 2017 hurricane season was shaping up to be one of the most ruinous of the past two decades. Hurricanes Harvey, Irma, and Maria each reached the intensity of a Category 5 storm at some point. How much do you know about tropical storm systems and their human and financial costs? Take our quiz to find out.

1 What is the costliest hurricane in U.S. history, prior to the 2017 season, based on property insured losses?

A. Hurricane Katrina
B. Hurricane Andrew
C. Hurricane Sandy
D. Hurricane Wilma

2 What were the estimated insured losses (property coverage only) for Hurricane Katrina, in 2016 dollars?

A. $65 billion
B. $49 billion
C. $103 billion
D. $78 billion

3 From 1997 through 2016, which year's hurricane season caused the most deaths in the United States, with more than 1,500?

A. 2004
B. 2012
C. 2005
D. 1999

4 In 2004, 3 of the 10 costliest hurricanes in U.S. history hit the country. What were their names?

A. Frances, Hugo, Rita
B. Wilma, Ivan, Rita
C. Ike, Andrew, Katrina
D. Charley, Ivan, Frances

5 What percentage of the residential flood damage in Texas and Louisiana from Hurricane Harvey was estimated to be uninsured (as of August 31)?

A. 30%
B. 55%
C. 70%
D. 82%

6 In early September 2017, Hurricane Irma struck Barbuda, St. Martin, and Anguilla. It was the strongest hurricane to hit the Caribbean since which storm in 1992?

A. Hurricane Ike
B. Hurricane Hugo
C. Hurricane Andrew
D. Hurricane Charley

7 What was the estimated value of insured coastal properties (commercial and residential) vulnerable to hurricanes in the state of Florida, as of 2015?

A. $1.2 trillion
B. $3.2 trillion
C. $800 billion
D. $290 billion

Answers: 1-A; 2-B; 3-C; 4-D; 5-C; 6-C; 7-B

Source: Insurance Information Institute

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