CFO

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Leaning In

More women are rising to the top spot in finance

The 2016 State Tax Survey

Mobile Payments On The Move

>> Cheryl Miller
EVP & CFO, AutoNation

FEATURES

May 2016
Volume 32, No. 4

Cover: courtesy AutoNation; this page, clockwise from top left: Getty Images, Thinkstock

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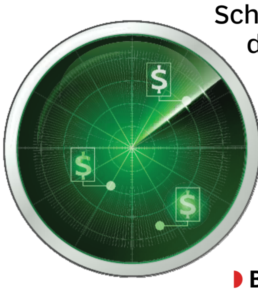
Up Front



By the Numbers

Clockwise from top left:
courtesy John F. Martin for General Motors, Thinkstock (5)

Long Time Coming

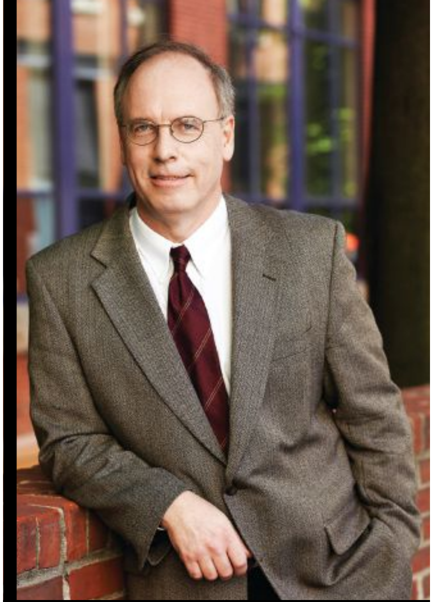
››Over the past two decades, *CFO* has chronicled the rise of women finance chiefs in the *Fortune* 500. In 1995, when we first took up the topic, there were just 10 women CFOs. In 2006, there were 35. Today, there are 67, as we report in our cover story, **"Leaning In"** (page 28).

Is this progress? That depends on the eye of the beholder. What is true is that women still occupy less than 14% of CFO seats in America's largest companies. In "Leaning In," reporter Ed Zwirn examines the impediments to women's advancement in the financial-executive ranks. And in profiles of four female CFOs at *Fortune* 500 companies, he uncovers some of the qualifications, experience, and qualities that lead to a successful career in finance—for women and men alike.

Another subject that *CFO* has tracked for the past 20 years is state tax. Since 1996, we have conducted a biennial state tax survey of corporate tax executives, in cooperation with KPMG, the audit, tax, and advisory firm. Joining us and KPMG for this year's survey is the Tax Executives Institute, the association for in-house tax professionals. To find out which states have the fairest and unfairest tax environments for business, see **"Going to the Source"** (page 34).

Elsewhere in the issue we take up a relatively new subject: mobile payments (**"Making the Connection,"** page 40). According to reporter Bob Violino, buying goods via smartphones and other devices has a bright future—that is, if the industry can overcome some obstacles in the present.

Edward Teach
Editor-in-Chief



Kory Addis

EDITOR'S PICKS

MANAGEMENT

Are you baffled, amused, or annoyed by the expectations of your millennial staffers? McKinsey offers useful insight and management tips in "Millennials: Burden, blessing, or both?" at www.mckinsey.com/business-functions/organization/our-insights/Millennials-Burden-blessing-or-both?

LEADERSHIP

CFO's Corporate Performance Management Summit will be held in San Diego on June 8–9. The theme is "Driving corporate performance through financial initiatives." For more information, go to https://theinnovationenterprise.com/summits/corporate-performance-management-summit-san-diego-2016.

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THE BUZZ ON CFO.COM

Even after his death on Jan. 21 of this year, Roger Sinclair, inaugural fellow of the Marketing Accountability Standards Board, remained a tireless critic of accounting rules governing the valuation of acquired brands.

His final article on the topic **("Proposed Mega-Deal Underscores Flawed Accounting Rule," CFO.com, March 29)** touched off a flurry of response.

Current accounting rules require companies to calculate the value of acquired intangible assets at the time of their purchase; to record that value on their balance sheet; and to test it annually for impairment. However, **companies are not allowed to show in their accounting any *gain* in an acquired brand's value,** creating what Sinclair called "The Moribund Effect."

One reader pointed out that brands that a company created are not valued on the balance sheet at all, and all marketing expenses are recorded as a cost on the income statement. "Acquired brands [also] have been paid for, either in cash or with shares, so it is normal to evaluate them [at the time of their purchase]," he wrote.

But another audience member scoffed, "Intangible assets represent more than 80% of the [S&P 500's value], yet the **financial reporting requirements were established decades ago,** when more than 80% of assets were tangible. Today's investors are looking to understand the assets that are driving the cash flow."

Another commenter quibbled that, among the world's largest 14,000 companies, brands account for only 59% of value. He also observed, **"the 'moribund' argument applies to all balance sheet assets, tangible and intangible.** Even land remains on the balance sheet at the lower of cost or net realizable value."

Another critic of Sinclair's premise chimed in, "Accounting is a 'system' following overall ideas and concepts. Changing [rules] for brands only would be impracticable and unacceptable."

But clearly there is a range of views on how much value is contributed by brands. **"Most marketers err in believing that brands are their most important intangible asset,"** the same critic wrote, referring to "numerous" studies suggesting that the value of brands often lags that of technology- and R&D-based intellectual property, assets related to customers and contracts, and goodwill. "Why not implement the proposed [new] accounting for brands on a voluntary basis in the MD&A notes?" he suggested.

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Topline

STATS OF THE MONTH

BLACK GOLD?

$37.55
March 2016 price per barrel of WTI crude

13
U.S. oil & gas companies that defaulted on debt in 2016*

$1.2 billion
Wells Fargo's Q1 reserves for oil & gas loan losses

-19%
One-year decline in NYSE's ARCA Oil & Gas Index

* As of April 20
Sources: Federal Reserve Bank of St. Louis; Standard & Poor's; Wells Fargo; Yahoo Finance

ACCOUNTING

Stock Option Rules Ease Reporting, FASB Says

Starting soon, all stock option tax reporting will go on the income statement.

If the Financial Accounting Standards Board is right, CFOs of companies that pay their employees and executives in stock options and restricted shares will find it simpler to report the related tax deductions, starting at the end of this year.

Moreover, finance chiefs at private companies will have an easier time reporting on share-based compensation under an accounting standards update issued in March, the standard-setters believe.

The effective dates for the new guidance are coming up fast. The update will go live for public companies for annual periods starting after December 15 and for interim periods within those yearly periods. Private companies that provide financials to outside parties must start complying for annual periods beginning after December 15, 2017, and for interim periods within annual periods beginning after December 15, 2018.

The guidance will simplify the accounting for the income tax consequences of share-based payment award transactions, according to FASB. "The accounting for the income tax consequences is probably the most significant change," Mark Barton, a FASB practice fellow involved in preparing the update, tells *CFO*.

Currently, companies account for excess tax benefits and excess tax deficiencies linked to employee stock options "with the hope that share prices will increase over time to benefit the employee," according to Barton.

But such increases can create accounting burdens for employers. "Because many companies issue shares to their employees that appreciate in value over time and create excess tax benefits for those companies, the tax effects related to those shares are not reflected in the income statement," Barton says.

That's because under current GAAP, excess tax benefits are recognized as additional paid-in capital, which is a balance sheet item.

Adding to the complexity, tax deficiencies related to stock awards may be recognized in one of two ways. One way is as an offset to the excess tax benefits, the other is on the income statement.

The new standard will erase all but one way of reporting tax benefits and deficiencies. "All tax benefits and tax deficiencies will be recognized through the income statement. So that's a pretty big simplification," Barton says.

Hard to Value

FASB expects the update will simplify the accounting for private companies that provide share-based payments to employees. "People often tend to think of things like stock options and other kinds of share-based awards as being specific to public companies. But it's actually quite common for private companies to issue share-based awards as well," says Barton.

But unlike public companies, whose shares trade in public markets, private companies don't have "observable market prices," enabling them to easily gauge the fair value of the employee share options, according to the update.

Under current GAAP, both private and public companies must use a valuation technique that takes into account the expected term of the share option. (The expected term is the period during which the award is expected to be outstanding, assuming that it vests.)

The board believes the standard "will simplify the accounting while maintaining the usefulness of information provided to investors."

›› FASB chair Russell G. Golden

To make reporting easier for nonpublic entities, FASB's update provides a "practical expedient"—a formula enabling the companies to estimate the expected term of all awards that meet certain conditions. Currently, private companies must estimate the period of time that each share-based award will be outstanding.

In another break for private companies, they'll be able to make a one-time election to switch from measuring all awards classified as debt (rather than equity) at fair value. Instead, they can measure them at intrinsic value. Previously, public companies could measure all such liability-classified awards at intrinsic value, but some private companies were unaware of that option.

In a press release discussing the update, FASB chair Russell G. Golden said the board "has issued a standard that we believe will simplify the accounting while maintaining the usefulness of information provided to investors."

DAVID M. KATZ

RISK MANAGEMENT

Companies Missing Critical Risks

Echoes of the controversy surrounding the introduction of fair-value accounting in the wake of the 2008 financial crisis have begun to crop up in corporate risk management, a new survey issued at the annual Risk and Insurance Management Society Conference in April suggests.

Similar to how historical-cost accounting was found wanting as a way to assess the financial risks lurking in current and future market conditions, basing forecasting of corporate operational risks on insurance claims histories (as they are based now) will be of little help in capturing fast-changing exposures like cyber risk, the thinking goes.

One of the questions asked in the report, which is based on more than 700 responses to an online survey and a series of focus groups of "leading risk executives" and C-suite officials, was "Which risk management techniques does your organization use to assess/model emerging risks?"

The answer given by the most respondents, including 60% of the risk managers and 43% of the C-suite, was "claims-based reviews." Forty-five percent and 30% use analyses "developed by third parties," and 38% and 19% use analytics.

"The wide use of claims-based reviews ... may indicate that companies are not quite assessing and modeling critical risks," according to the report. "The overwhelming use of claims-based reviews suggests that organizations are relying on studying past incidents to predict how emerging risks will behave."

At the same time, boards are asking more and more of risk management departments, including "everything from leading enterprise risk management to providing better risk quantification and analysis," according to the report.

That's creating a need for risk managers to upgrade their ability to forecast previously unforeseen risks and consequently to change from "the analytics of a retrospective [view] to a prospective view, " Brian Elowe, Marsh's U.S. client executive leader, said.

Relying solely on insurance-claim-based reviews is "a fully retrospective" way of modeling risks, he said. A more prospective way for risk managers to proceed is to look at "leading indicators," such as observing that "organizations that do X, Y, and Z tend to have less [risk] exposures than organizations who don't," Elowe added, and then to "build algorithms" to aid in their companies' quantitative analysis of future risks.

D.M.K.

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DATA PRIVACY

Microsoft Sues Over Feds' Searches

Microsoft has sued the U.S. government to overturn a 1986 law that bars the company from telling its customers when federal agents have demanded their digital data, joining other tech companies defending privacy rights against intrusions by law enforcement.

According to Microsoft, the Electronic Communications Privacy Act (ECPA) should be struck down because it violates cloud customers' right to know if the government searches or seizes their property and the cloud provider's right to be transparent with its customers.

The law prevents disclosure of a search warrant or other legal process if the government has "reason to believe" disclosure would hinder its investigation.

Over the past 18 months, Microsoft said in its lawsuit, the company has received 5,624 federal demands for customer information, of which 2,576 have been accompanied by secrecy orders under the ECPA.

The government "has exploited the transition to cloud computing as a means of expanding its power to conduct secret investigations," the complaint says. "As individuals and business have moved their most sensitive information to the cloud, the government has increasingly adopted the tactic of obtaining the private digital documents of cloud customers not from the customers themselves, but through legal process directed at online cloud providers like Microsoft."

Microsoft noted that in the predigital age, the government could not avoid providing notice to individuals and businesses when it sought access to documents in their file cabinets or local computers.

"The transition to the cloud does not alter the fundamental constitutional requirement that the government must—with few exceptions—give notice when it searches and seizes the private information or communications of individuals or businesses," it said. **MATTHEW HELLER**

TAX

Tax Bill: Zero

Many U.S. corporations have not been paying federal income tax, with even large and profitable companies having little or no liability, according to the Government Accountability Office.

The watchdog said in a report that in each year from 2006 to 2012, at least two-thirds of active corporations had no federal income tax liability. The report was prepared for Democratic presidential candidate Bernie Sanders, who asked the GAO to look into corporate tax loopholes.

Among large corporations (generally those with at least $10 million in assets), almost half—42.3%—paid no federal income tax in 2012, the GAO found, and 19% of the large companies that reported a profit still paid none.

On average, large profitable American corporations paid only 14% of their profits in federal income taxes from 2008 through 2012.

"There is something profoundly wrong in America when one out of five profitable corporations pay nothing in federal income taxes," Sanders said in a statement. "Large corporations cannot continue to get more tax breaks when children in America go hungry."

"We need real tax reform to ensure that the most profitable corporations in America pay their fair share in taxes," he added. "That means closing corporate tax loopholes to raise the revenue necessary to rebuild America and create millions of jobs."

The GAO said the reasons why corporations may pay no taxes in a given year include the use of tax deductions for losses carried forward from prior years, as well as tax incentives, such as depreciation allowances that are more generous in the federal tax code than those allowed for financial accounting purposes.

In each year from 2008 to 2012, about 15% to 19% of all active corporations had their positive net tax income completely offset by net operating loss deductions carried forward from prior tax years.

The senator from Vermont has co-sponsored a bill to prevent profitable corporations from receiving tax breaks by sheltering income in Panama, the Cayman Islands, Bermuda, and other offshore tax havens. **M.H.**

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THE ECONOMY

On the Menu: Higher Earnings

The U.S. restaurant industry will experience lower operating costs and stronger consumer demand this year, translating into better-than-forecast top-line growth and operating income, said Moody's Investors Service.

The credit rating firm said that steady economic growth, a decline in underemployment, lower gas prices, and a rising minimum wage would have U.S. consumers dining out more. As a result, Moody's raised its outlook for restaurants to "positive" from "stable." Combined with lower commodity prices, consumer demand factors caused Moody's to also increase its forecast for operating income for the sector. Income will grow 5% to 6% over the next 12 to 18 months, says Moody's, up from the firm's previous call of 2% to 4% growth.

"Falling prices for beef, chicken, pork, and dairy products will help boost earnings," said William Fahy, a Moody's vice president and senior credit officer. "The improvement in earnings will be choppy though, with the average check being the key driver."

Moody's said that restaurants' use of table-top devices and mobile applications should drive brand interest, while labor scheduling applications and food waste systems will help keep operating costs under control, according to the report, "U.S. Restaurants: Going Positive as Lower Costs, Consumer Demand Should Lift Operating Income."

Still, there are factors that could spoil the party. While the recent adoption by some U.S. cities and states of a higher minimum wage should boost consumer spending at restaurants, Moody's said, the higher labor costs will also crimp operating margins for restaurant operators.

But higher wages won't affect all restaurant operators at the same time and in the same way, since "the increases are still uneven across states and not uniform in dollar amounts and timing," Moody's said.

"Some companies such as Wal-Mart, McDonald's, and Starbucks are implementing higher-wage and incentive initiatives ... which will likely be followed by competitors that don't want to be left behind," the report added. **VINCENT RYAN**

DATA SECURITY

IRS's Data Security Still Flawed

The IRS has made progress in improving information security, but significant deficiencies remain in its systems for protecting sensitive taxpayer and financial data, according to the Government Accountability Office.

Among the continuing information-security weaknesses cited by the government watchdog is a lack of access controls, which could allow unauthorized users to gain access to sensitive taxpayer information.

As part of its audit of the IRS's fiscal 2014 and 2015 financial statements, the GAO found that the IRS has not always implemented controls for identifying and authenticating users, such as applying proper password settings. Neither has the IRS appropriately restricted access to servers or ensured that sensitive user authentication data were encrypted.

"Until IRS takes additional steps to address unresolved and newly identified control deficiencies and effectively implement elements of its information security program ... its financial and taxpayer data will remain unnecessarily vulnerable to inappropriate and undetected use, modification, or disclosure," the GAO wrote.

According to the report, the IRS has not ensured that many of its corrective actions to address previously identified deficiencies were effective. "Of the 28 prior recommendations that IRS informed us that it had addressed, nine of the associated weaknesses had not been effectively corrected," the GAO noted.

In addition to those prior recommendations that have not been implemented, the GAO is recommending the IRS take two additional actions to more effectively implement security policies and plans.

First, the report said, the IRS should update system and application audit plans based on the current version of referenced policies and guidelines and when significant changes are made to a system or application. It should also update the security plan for systems that provide network infrastructure services to IRS personnel. **KATIE KUEHNER-HEBERT**

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AUDITING

Tougher Audit Supervision Wanted

A new PCAOB proposal is intended to make it easier for lead auditors to spot deficiencies in the work of outside auditors.

The Public Company Accounting Oversight Board has proposed new guidance for lead auditors' supervision of other auditors, citing inspections that have found deficiencies in other auditors' work.

The board said its oversight activities have shown that the supervision of other auditors is an issue at some firms, in some cases because the other auditors have business practices, cultural norms, languages, and quality-control systems that differ from the lead auditor's.

The proposed amendments to PCAOB auditing standards are intended to ensure lead auditors are appropriately involved in other auditors' work.

"Investors depend on the lead auditor to provide assurance that there are no material misstatements in audited financial statements or material weaknesses in internal control, no matter where those misstatements or weaknesses may reside," PCAOB Chairman James R. Doty said. "Today's proposal is intended to improve the consistency in the quality of engagement partner oversight of other firms engaged to assist in the audit."

The changes include directing the lead auditor's supervisory responsibilities to the areas of greatest risk, consistent with PCAOB risk-assessment standards and making clear that, to act as lead auditor, an audit firm must itself audit a meaningful portion of the financial statements.

The board also proposed requiring more explicit procedures to prompt the lead auditor to bolster its involvement in the work of other auditors through enhanced communication and more robust evaluation of other auditors' qualifications and work.

According to the PCAOB, other auditors are involved in about 55% of audits performed by U.S. global network firms and 30% of audits performed by non-U.S. global network firms. About 80% of *Fortune* 500 company audits by the U.S. firms involve other auditors. **M.H.**

LAW

High Court Upholds 'Trial by Formula'

The U.S. Supreme Court said in mid-March that statistical evidence can be used to establish liability in class-action suits against businesses, upholding a concept that has been criticized as "trial by formula."

Tyson Foods challenged the concept after a jury awarded $2.9 million to workers at an Iowa pork processing plant who said they should have been paid overtime for putting on and taking off protective gear. Since Tyson did not keep records, the workers relied on statistical evidence from an industrial relations expert to show they worked more than 40 hours a week.

Companies have said the use of such evidence can result in unfair damages. But a 6–2 Supreme Court majority refused to impose a blanket rule that would either allow or prohibit it.

"This case presents no occasion for adoption of broad and categorical rules governing the use of representative and statistical evidence in class actions," the Court said. "Rather, the ability to use a representative sample to establish class-wide liability will depend on the purpose for which the sample is being introduced and on the underlying cause of action."

The opinion also held that *Wal-Mart Stores* v. *Dukes*, which made it harder for workers, investors, and consumers to pursue class actions, was distinguishable from the Tyson workers' claims.

"While the experiences of the employees in Wal-Mart bore little relationship to one another, in this case each employee worked in the same facility, did similar work, and was paid under the same policy," Justice Anthony Kennedy wrote for the majority.

The Tyson plaintiffs represented a class of more than 3,000 workers. Their expert conducted video observations of a sample of 53 employees donning and doffing protective gear to estimate that it took an average of 18 minutes a day for the cut and retrim departments and 21.25 minutes for the kill department to complete the task. **M.H.**

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Pension Predicament

With PBGC premiums soaring, sponsors are pressured to fund up their plans. By David McCann

In the federal budget bill that was signed into law last December, Congress acted for the third time in four years to give corporate pension plan sponsors relief from funding requirements for underfunded plans. At the same time, lawmakers authorized a sharp increase in the annual premiums that plan sponsors must pay to the Pension Benefit Guaranty Corp., which insures defined benefit plans.

That congressional give-and-take created thorny choices for sponsors of underfunded plans. On one hand, they can take advantage of funding relief by using a 25-year smoothed interest rate in calculating future plan liabilities, which would be much lower than prevailing market rates. That will keep contributions manageable, but kick the can of funding status further down the road. Meanwhile, sponsors still have to pay the higher PBGC premium payments.

On the other hand, plan sponsors can choose instead to ramp up their contributions and thereby rein in premiums. Doing that, however, would mean diverting corporate cash from other, more pressing uses.

PBGC premiums have two components. One is a flat-rate, per-participant premium, which has been rising steadily since 2006. The premium was $57 in 2015, rose to $64 this year, and will continue to rise until it hits $80 in 2019, after which it will be subject to annual inflation adjustments.

What concerns plan sponsors more is the second component: a variable-rate premium that is a percentage of a plan's unfunded liabilities, currently capped at $500 per year per participant. Below 1% for many years, the variable-rate premium is now about 3% and will also keep rising until 2019, when it will reach 4.1% (see "Rising Rates," facing page). For poorly funded plans, the variable-premium levy will be huge.

For GM, savings on PBGC premiums are the "icing on the cake" of its strategy to lower plan liabilities through debt proceeds, says Dhivya Suryadevara.

Borrowing to Fund

Instead of using funding relief or contributing corporate cash to pensions, sponsors of underfunded plans have a third choice: Reduce the underfunding via debt.

In February, General Motors announced that it would issue $2 billion in unsecured debt this year and use the proceeds to make a discretionary contribution to its pension plan for hourly workers, which was underfunded by $10.4 billion at the end of 2015. The debt will consist of $1.25 billion in 6.6% notes due in 2036 and $750 million of 6.75% notes due in 2046.

The strategy of borrowing to fund pension plans isn't new. Still, GM's move has attracted a lot of attention in the pension arena, because it was made to fund a discretionary contribution instead of a required one, according to Bradley Smith, a partner at investment adviser NEPC.

Smith and other pension experts view GM's strategy favorably. "The PBGC premium is dead money," says Bob Collie, chief research strategist, Americas institutional, at Russell Investments. "It doesn't reduce your deficit, so it operates just like a tax. Every time the premium goes up, it shifts the balance [toward funding a plan]," he says.

Deciding whether to fund a pension "depends on what your borrowing cost is, your tax situation, and other complexities, so it's a case-by-case calculation," says Collie. "But in the generic calculations we've done, there's a strong case for considering doing what GM is doing. We think that for a lot of plans, it is a positive calculation in terms of net present value."

Collie expects other companies with underfunded plans will follow in GM's path, not just because of the math, but also because sponsors of the largest corporate pension plans are often "first movers" on strategy. For example, in 2012, GM, Ford Motor, and Verizon Communications launched the trends of offering lump-sum payouts to plan participants and (in the case of GM and Verizon)

John F. Martin for General Motors

annuitizing pensions, which are still playing out today.

Ari Jacobs, global retirement solutions leader at Aon Hewitt, says the borrowing strategy "makes tremendous sense" for investment-grade companies. "Borrowing costs are low, and you avoid the PBGC tax," he says.

"I expected this to be a bigger wave than it has," adds Jacobs. "I think there are still a lot of organizations that don't want to risk overfunding because they think interest rates are going to go up." (Low discount rates have been a major contributor to pension underfunding.)

But that hesitance is less relevant with regard to fixed-income investments. Indeed, the NEPC's Smith says the debt-issuance strategy will be sound only for companies that derisk their plans.

Playing It Safe

And that's exactly what GM intends to do. All $2 billion of the borrowed funds will be going into fixed-income instruments, according to Dhivya Suryadevara, the automaker's vice president of finance, treasurer, and CEO of its GM Asset Management unit.

Suryadevara says savings on PBGC premiums are more "icing on the cake" than the primary reason for the debt-fueled contribution to the pension plan. "It's more about risk management," she says. "We tend to look out a few years at what our non-operating calls on cash are going to be. Understanding that we're in a cyclical business, we want to make sure we're able to meet those even during a downturn."

GM currently expects that it will not have to make significant mandatory contributions to its U.S. pension plans for the next five years. "If you prefund it, it pushes that mandatory contribution out a bit further," Suryadevara notes. "In the process, we'll also be able to save on the PBGC premiums."

She adds that while GM will look on a regular basis at issuing additional debt to fund pension contributions, it's not known whether or how often it will actually do so. CFO

Sticker Shock

A letter sent to the Pension Benefit Guaranty Corp. last November, signed by more than 100 companies including GM, Ford, and Verizon, expressed outrage at steep premium increases.

"Every additional dollar that employers must pay to the PBGC is one less dollar that can be used to fund participant benefits, expand businesses, create jobs, or grow the economy," the letter stated. "Rather, these premium increases foster economic uncertainty, hamper investment, endanger jobs, and constrain economic growth."

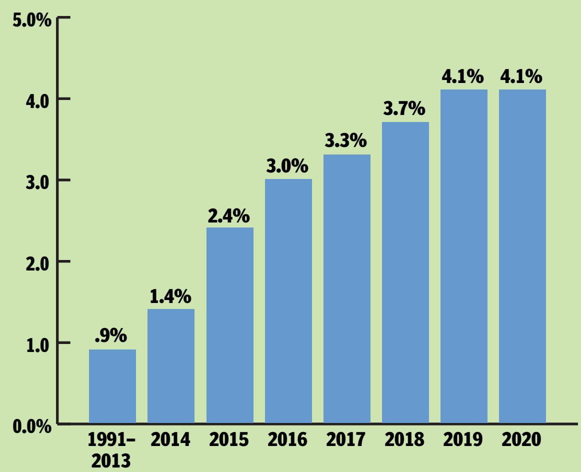
Further, the companies griped, "PBGC premium increases also create an unfair playing field among employers, as only the employers that voluntarily provide defined benefit pension plan benefits face this tax burden."

Still, the many companies that have taken advantage of the funding-relief mechanisms introduced since 2013 have only themselves to blame for finding themselves in a deeper, more highly taxed hole to climb out of with respect to funded status. And in doing so they played right into the federal government's hand, contends Bob Collie of Russell Investments.

The first round of funding relief, included in a 2012 transportation bill, "was a reaction to the financial crisis, intended to help companies contribute less money to their plans because they had so many other needs for their cash," explains Collie. "The last two rounds of relief were both part of budget acts, which makes it very clear that the intent was to reduce tax-deductible contributions as a way to increase tax revenue and use that in budget-balancing calculations. The rationale for the relief was pretty blatantly political." D.M.

Rising Rates

Percentage of unfunded pension liabilities paid by defined benefit plan sponsors as a PBGC premium



Source: NEPC

Data, Data Everywhere

Overwhelming as it may seem, any company can begin leveraging its data to acquire critical business insight. Here are some tips. By Michael Clark

Enterprises of all sizes today are deluged by data. EMC estimates that the amount of data worldwide is now doubling every two years. This rapid rate of expansion is expected to further accelerate as the Internet of Things drives exponential growth in data creation and storage. ¶ Business data has also assumed an increasing variety of forms in recent years. It resides in multiple places—from legacy, on-premise finance systems to the cloud, and from mobile devices to social media repositories. Taken together, these storehouses of information tell the story of what a business is doing, how well it is performing, where it is likely going, and why.

As it grows in volume and complexity, enterprise data becomes increasingly difficult to decipher for the insights needed to manage a company to its highest potential. Traditional approaches, often tied to single applications and platforms, lack the power and flexibility to query multiple sources and formats, particularly as data volume increases.

Companies thus find themselves stymied by the wall of data facing them. McKinsey reports that just 1% of all enterprise data available is actually being used—and this primarily for anomaly detection and control, as opposed to predictive and business-optimizing purposes. Many companies admit that some of their most important decisions are made without being properly data-informed.

Overwhelming as the problem may seem, it is possible for any company to begin using its data to acquire the critical business insight needed to gain competitive advantage. The following is a brief guide for getting started on building a greater degree of data-driven business intelligence.

Frame your challenge. Do so as succinctly as possible. Experienced CFOs and analysts alike often get stuck right here. Eager to solve the company's biggest, most vexing problems, their instinct is to try to get their arms around everything all at once. Resist this impulse. Focus on several key business problems you need to solve.

Fundamental operational issues are a good place to start. Are you unable to determine production unit costs? Are you missing production quotas, failing to meet shipping deadlines, or unable to respond to customer order queries in a timely fashion? Of the problems you've identified, which are most pressing? Prioritize rigorously and identify a few to begin resolving.

Organize your resources. Begin by identifying a data analytics team leader and ensure that the team's mission has executive-level commitment. Identify team members from the various functional areas whose subject matter expertise supports the questions you are attempting to address.

Keep the group small. Populate it with those who possess appropriate technical, analytical, and collaborative skills and are capable of learning new methods in quick-study fashion. Carve out sufficient time for team members to contribute effectively within the context of their "regular" jobs. Embed the data analytics effort in associates' formal goals and objectives.

Build your plan. Your team now needs to develop an approach for addressing the specific challenges identified. Begin by ensuring they fully understand the business problems at hand. Then build process maps that break down the different challenges into their more easily comprehended constituent parts, showing where interrelationships between and dependencies among them exist. Challenges in shipping, for example, may well be tied to shortfalls in core materials delivery, or to problems with credit approval processes.

Identify and map the data sources relevant to each problem area. Then, with an eye to the priorities established, build a project plan that moves the team along a detailed trajectory of data gathering, query writing and execution, data analysis, and problem resolution modeling. Address the challenges identified earlier in an informed, data-driven manner.

At the same time, the team must be able to maintain a high degree of agility. Priorities may need to be adjusted based on discoveries made along the way. But before executing your plan, your team will need to build a properly tooled data analytics platform.

Thinkstock

Assemble your analytics platform. With business process maps and data source diagrams in hand, your team will now need to determine the best tools and techniques for digging into this mix of information. Here you should consider consulting with external resources that specialize in advanced data analytics, because choosing the most appropriate toolset today is no trivial matter.

As companies have begun to grapple increasingly in recent years with the problems presented by Big Data, associated technologies have proliferated at a bewildering pace, providing software that moves far beyond the capabilities of Microsoft Excel. Depending on the nature and complexity of your data sets and the specific problems identified, you will very likely want to leverage several of these newer data science platforms and products, like Hadoop, Spark, Cassandra, and Storm–tools, designed specifically to perform advanced, high-speed data processing, analysis, and visualization.

Most of these technologies are "open source," developed by the highly regarded Apache Software Foundation. Each can be established within virtualized, cloud-based, pay-as-you-go environments. Start-up costs for this effort can accordingly be minimized.

Execute and assess your analytics. Begin the execution phase of your plan by performing your first data extraction, aimed at collecting the raw data itself. Check the results: does it appear you've succeeded in pulling from all appropriate sources the sort of data you'd expect? For example, if you do business across the entire United States, does your data set actually report on all 50 states? If not, why not? If necessary, adjust your extract logic and rerun your process.

Now query your data. Apply the questions you believe will get to the heart of the problems you've prioritized to the raw data extracted. This may involve conducting additional data extractions, combining the resulting data sets, and conducting follow-on queries to help you develop a more complete understanding of cause and effect.

Consider your multiple data sources together, query them systematically, and adjust where necessary to refine the quality of your findings. You should now be able to see patterns and answers emerging out of the sea of data before you. Traditional business analytics typically answer the "what." What you want to establish is the "why," as that holds the key to understanding the "now what."

You should now begin to see the power of building a comprehensive data analytics capability within your company. Developing meaningful business insight today involves combining and querying multiple, often highly voluminous and varied data sets in multi-dimensional ways. In turn, these insights should allow you to more quickly address your various business challenges and determine the effectiveness of your solutions. CFO

Michael Clark is a partner with Exceptional Leaders International, a provider of business transformation expertise to middle-market companies.

Password Problems

Survey finds many employees would sell a password to an outsider.

More than a quarter (26%) of employees admitted to uploading sensitive information to cloud apps with the specific intent to share that data outside the company, according to a survey of 1,000 office workers at large organizations in the United States, the United Kingdom, Germany, France, the Netherlands, and Australia.

SailPoint's annual Market Pulse Survey, conducted by research firm Vanson Bourne on behalf of the Austin, Texas-based identity and access management (IAM) provider, asked respondents how they viewed their individual role in IT security processes, and whether there were any improvements being made by their organizations to beef up practices in light of ever-changing security threats.

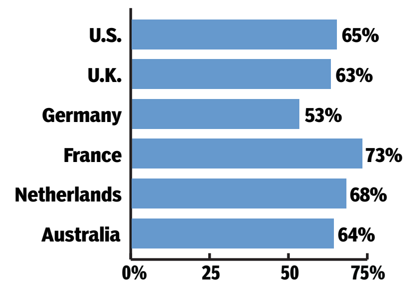
The survey found that 65% of respondents admitted to using a single password among applications, and one-third share passwords with their co-workers. One in five employees would sell their passwords to an outsider, and of those, 44% would do so for less than $1,000.

One in three employees admitted to purchasing a SaaS application without IT's knowledge, and more than 40% said they had access to a variety of corporate accounts after leaving their last job.

"Today's identity governance solutions can alleviate the challenge of remembering several passwords and automate IT controls and security policies, but it's imperative that employees understand the implications of how they adhere to those policies," SailPoint president Kevin Cunningham said in a press release. "It only takes one entry point out of hundreds of millions in a single enterprise for a hacker to gain access and cause a lot of damage. **KATIE KUEHNER-HEBERT**

One for All

Respondents who use a single password among applications



Source: NEPC

Lacking Investment Yields, AIG Zeroes In on Profits

AIG Commercial CEO Rob Schimek seeks a bigger bottom line in an era of low investment gains. By David M. Katz

During an interview in October 2008, less than a month after the financial crisis came into full bloom with the announcement of the bankruptcy of Lehman Brothers, Rob Schimek told *CFO* that "liquidity is absolutely a number one priority, and [must] never be called into question" at AIG Commercial Insurance. ¶ At the time, that was a no-brainer. "The tradeoff of market perception versus the additional yield—today that's a pretty easy decision to make," he said then.

Throughout the crisis, Schimek's property-casualty unit proved a bulwark against losses stemming from credit-default swaps and other risky securities sold by the company's financial products group. Today, just as there were in 2008, there are calls to break up the company—most notably coming from the activist investor Carl Icahn.

Much else, however, has changed for both AIG and the property-casualty insurance insurance industry. With investment income much tougher to come by, profitability has again become a key focus. In December 2015, following a number of executive jobs succeeding his CFO role, Schimek was named, as part of a management shakeup, chief executive of AIG's worldwide commercial insurance operations.

The company quickly followed that up by announcing a strategy of divesting weaker performing units and tightening its management structure. The strategy includes layoffs across the group. Further, the company set up strict insurance underwriting goals for Schimek's division, calling on it to improve the commercial property-casualty accident-year loss ratio by six points. "I know that's going to be difficult, but also within reach," he says.

The investment picture has also changed a great deal. The current prolonged period of low interest rates has the entire insurance industry scrambling for yields, and AIG is no exception. Like other property-casualty insurers, the group is heavily invested in fixed-income securities. But unique to AIG is a whopping tax asset sitting on its balance sheet, causing it to shun now-redundant, tax-advantaged munis.

The insurance industry is also carrying huge policyholder surpluses, and large amounts of capital are flowing into it from alternative sources like hedge funds, sovereign wealth funds, pensions, and mutual funds. By increasing the supply of capital, those two factors are boosting competition among insurers. The result? A P/C insurance market that may offer lower prices and more coverage availability for commercial insurance buyers.

The increasing insurance market competition, in turn, is prompting AIG commercial to distinguish itself from carriers that are mere "capital providers," as Schimek puts it. Instead, the division wants to focus on its ability to help assess and manage the risks of its corporate clients—in part by putting large numbers of engineers to work in gauging customers' safety risks.

CFO spoke with Schimek about how AIG and the commercial P/C insurance industry are managing their financial and business risks nearly a decade past the Great Recession. An edited and excerpted version of his remarks follows.

How do you rate the goal of liquidity versus that of profitability today?

We continue to maintain an appropriate level of liquidity inside of all of our legal entities. We disclosed, for example, that AIG's parent company liquidity stood at $9.2 billion at December 31, 2015. The industry overall appears to be in good shape. Policyholder surplus for the industry is at record highs in 2015, in the vicinity of $670 billion. Most companies, including AIG, maintain an appropriate level of that surplus in liquidity. It's always on our radar screen.

With respect to profitability, AIG disclosed its strategy on January 26. Profitability is playing a prominent role in the strategy. We have the goal of a return of capital of about $25 billion to our investors over the course

Thinkstock; opposite page, courtesy AIG

of the next two years. We also said we will do a series of strategic divestitures including, initially, the 19.9% IPO of U.G.C. [United Guaranty Corp., a mortgage insurer], which was the first step toward full separation [of the entities from the parent company], and the sale of our entity called AIG Advisor Group [a broker-dealer].

We also said we would even consider separation of larger modular business units, as the commercial and the consumer segments over time might possibly be separated. We also said we would make some operating improvements, including reducing our firm-wide general operating expenses by $1.6 billion over the course of the next two years.

When we talked during the crisis, AIG had $70 billion in its investment portfolio, 75% of which was in municipal bonds. How has that changed?

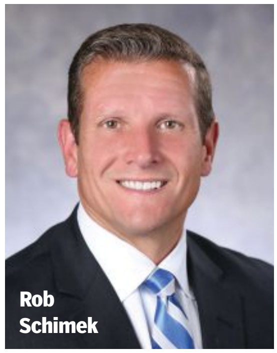
Surely AIG's tax position has changed since 2008. Today we have a significant deferred tax asset on AIG's balance sheet, and because of that, AIG has certainly modified its investment strategy. Holding municipal bonds, which are tax exempt, would not be a primary focus of the organization today, given its current tax position. And so we continue to invest heavily in fixed-income securities, but not in tax-exempt munis. That would not be a move that would be consistent with our current net operating loss carryforward position for the company.

Why does that particular investment strategy work well with the deferred tax asset on your balance sheet?

To use the net operating loss carryforward, we have to generate taxable income. And so we have a portfolio of investments that we now generally invest in securities designed to try to make the best use of that tax attribute. Holding a municipal bond on our balance would not be consistent with trying to generate taxable income and use a piece of the NOL.

How widespread is that strategy across the P/C industry?

Holding fixed income securities is a strategy that's generally consistent across the property-casualty industry. However, our strategy with respect to municipal bonds versus the strategy of other companies would certainly be different because our tax positions are different. We want an investment portfolio that matches AIG's needs. What we're trying to do with our clients drives what kinds of liabilities we take. The liabilities drive what kinds of investments we hold.



So, for example, our focus is to be our clients' most valued insurer. We take risks that are designed to help make our clients feel as though they can operate their businesses with a greater degree of confidence. We try to reduce their fear of risk. We try to reduce the likelihood that they get a risk on their balance sheet that they're not prepared to be able to handle.

How do you match your investment philosophy with your operating goals?

We establish our investment philosophy and investment portfolio after first studying our liability portfolio. So we take risks; those risks create our liabilities. We study our liabilities, and we seek an investment portfolio that is properly matched to those liabilities. We've got a very strong chief investment officer, Doug Dachille. I spend time with Doug trying to make sure that the investments team is as familiar with the liabilities as the underwriting team is so that they can make the smartest decisions about how to invest our dollars.

Late last year, the Fed hiked interest rates a bit, indicating to some a reversal of policy. How does that affect you?

Despite the Fed's December 2015 rate hike, yields remain low on the portfolio. Insurance industry investment income is therefore depressed. And while the Fed began to raise rates, yields are still unlikely to return to their pre-crisis yields anytime soon. Roughly 80% of property-casualty bond or cash investments are in ten-year or shorter durations. Most property-casualty insurer portfolios have low-yielding bonds for years to come.

We evaluate our performance on the basis of what we refer to as a risk-adjusted profitability, which is our underwriting results plus our investment income minus our cost of capital. And so we are always adjusting our portfolio mix and our pricing in response to changes in the marketplace with respect to either the rates we can achieve from an underwriting perspective or the effect of investment income on the portfolio. But overall our portfolio liability is not significantly different in 2016 than it was in 2015, except that we will likely continue to shorten our duration.

In 2008, you were worried about the possibility of no longer being part of one of the world's biggest and strongest financial services companies. How has that changed?

I'm extremely proud of the progress that AIG has made, and I'm extremely proud to be able to say that our commercial insurance operation is a part of the AIG family of companies. We still get tremendous benefit from the strength of AIG's liquidity. That's a tremendous benefit to the property-casualty subsidiaries, and all of our subsidiaries, in the event that we ever needed liquidity. CFO

Optimizing cash flow to secure/ grow the business

Executives across the globe are seeking to use cash flow to support growth and secure their businesses. Optimizing cash flows is one of this year's key business concerns identified in the latest American Express/ CFO Research Global Business and Spending Monitor. This is the ninth year that CFO Research has partnered with American Express to gauge the business outlooks of senior finance and corporate executives from large companies around the world. The 2016 edition is drawn from the survey responses of 651 finance and corporate leaders.

Despite the environment of economic uncertainty in which many of the surveyed executives operate, most indicate that their organizations will increase planned investments in 2016 over prior-year levels. However, respondents also indicate that the nature of those investments will change to reflect the current competitive environment. Investments in 2016 will reflect selective spending on the businesses that present the most certain growth prospects, which makes the judicious use of cash more important than ever.

▶ Pragmatic And Selective Approaches

Nearly nine in ten (87%) executives surveyed say their companies are planning to increase total spending and investment in 2016, and 49% say they are planning increases of 10% or more. However, the nature of that spending is influenced by the finding that 61% of survey respondents say that political and economic uncertainty will make them more cautious.

In other words, companies are going to spend, but in pragmatic ways and in selective areas, seeking stability and security where they can find it.

That selectivity and pragmatism is confirmed by the more than two-thirds (68%) of surveyed executives who say that optimizing cash flow has become more important for their firms. Strategies that respondents plan to use to manage cash flow range from optimizing accounts receivable (43%) and accounts payable (42%) to improving collaboration and communication between different functions (40%) to investing in technologies to improve visibility into the cash conversion cycle (43%).

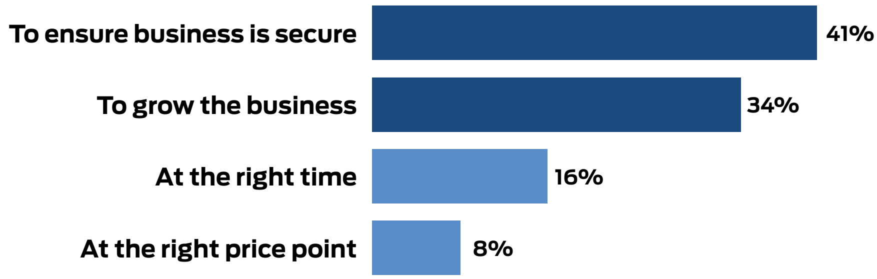
▶ Securing the Business

Shielding their companies from increasing threats around the world, while still pursuing growth opportunities, is at the top of the agenda for many firms. More than four in ten (41%) survey respondents say that ensuring that the business is secure

▶ Figure 1

Most Important Reasons for Optimizing Cash Flow

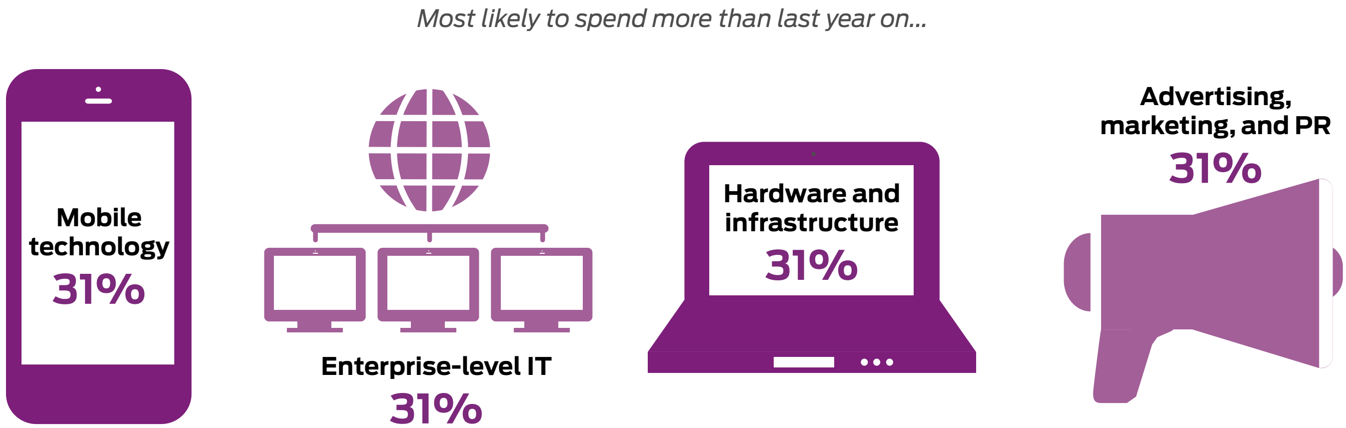
Which of the following reasons for optimizing cash flow will be the most important for your company over the next year? "Obtaining sufficient funding _____."



Percentage of all respondents. Percentages may not total 100% due to rounding.

Figure 2

Areas of Increased Spending to Support Growth



is the most important reason for optimizing cash flow. (See Figure 1.) Executives' plans for cash reflect the balance that companies are looking to strike between exercising caution in the face of uncertainty and pursuing new opportunities.

And in a global business environment that is increasingly dependent on technology, executives are more keenly aware of the business risk that comes from inadequate information security. When asked to prioritize their companies' needs for increased IT spending in 2016, respondents tagged the prevention of data breaches as the most important. In fact, 83% of respondents plan to increase spending for information security in 2016, and nearly half (49%) expect those increases to be more than 10% higher than current levels.

Growing the Business

Survey respondents emphasized that relying on their own cash is a less risky path to growth. More than one-third (34%) of the survey respondents agree that growing the business is the most important reason for optimizing cash flow. (See Figure 1.) Companies are still willing to make investments in specific areas, but the increasingly cautious executives insist they will make those investments judiciously.

This year, the survey found that executives are most likely to focus increased investment either in new product and service development or in improving production efficiency—both strongly related to profitable growth. Slightly more than three in ten respondents expect to increase investment in these activities over the next year.

Other survey results show the degree to which executives are counting on technology to support their companies' growth as well as to improve control over the cash conversion cycle. Respondents are prioritizing spending in technologies that can support business activities, including mobile technology (31%), enterprise-level IT systems (29%), and hardware/infrastructure (28%). (See Figure 2.) They put technology investment on a par with increased spending on advertising, marketing, and public relations (28%), indicating the extent to which business growth has become technology-dependent.

Balancing Business Goals And Risk Management

As the business environment evolves, so, too, do the roles for CFOs and their finance units. When asked which areas are most important for increasing finance officers' contributions to their companies' success, respondents chose a deeper external knowledge of industries and markets (35%), as well as a stronger understanding of their own businesses (34%), ranking them as highly as they do sophisticated analytical skills (35%) and better technical skills (33%). Respondents rank these development areas just as highly for finance staff members. These types of skills are becoming increasingly important in a world where a large company's resources must be channeled into its most solidly grounded businesses.

In an uncertain business environment, finance functions can help shape and improve the workings of the business, and finance leaders must make sure that their staffs are able to maximize contributions to the security and growth of the business.

Leaning In

MORE AND MORE WOMEN ARE RISING TO THE CFO SPOT AT AMERICA'S LARGEST COMPANIES.

›› Of the 308.7 million people counted in the United States 2010 Census, some 50.8% were women. Seen against that number, the 13.8% of *Fortune* 500 companies that currently have women occupying the top finance job may not be encouraging to those who value gender diversity, at least when it comes to C-level jobs in Corporate America.

But there has been a steady, if slow, increase of diversity over the past decade or so. The percentage of female *Fortune* 500 CFOs at the end of 2015 is more than double the 6.8% reported as of year-end 2006, and that score has risen in almost all of the years in between. Similarly, the 29 people of color (6%) who are finance chiefs at America's largest companies is up from 16 (3.3%) in 2006, according to figures compiled by executive search firm Spencer Stuart.

The advance of women in finance has been pretty much spread out among all sectors of the economy, with all industries except for ››

By Ed Zwirn

PHOTO FROM GETTY IMAGES

life sciences having seen an increase in female CFOs in 2015, Spencer Stuart reports. Revealingly, the technology, media, and telecommunications sectors—all industries in a high state of flux and the most likely to recruit CFOs from other sectors—currently have the highest percentage of female finance chiefs.

Silicon Valley itself, although not known particularly as an employment mecca for gender diversity, has seen a relatively high proportion of women become finance chiefs at large public companies, with prominent examples including Microsoft's Amy Hood, Alphabet's Ruth Porat, Kelly Kramer of Cisco Systems, and Judy Bruner of SanDisk.

But it may prove to be some time before the number of female CFOs in general reach anything approaching women's majority status in the population.

"We're really happy to see this progress," says Karen Quint, a consultant with Spencer Stuart's CFO recruitment area. "I think [the percentage of women CFOs] will continue to increase." But, says Quint, noting the relative absence of women in jobs like corporate controller or vice president of finance that would position them to reach top finance spots, "the biggest issue is that there's still a small pool to draw from."

While most firms still want finance backgrounds, adds Quint, the top companies are looking for candidates with a "diversity of experience, international or global experience," and "experience expanding a business."

Another factor that may continue to hold women back results from age-hold attitudinal differences that reward assertive men for their drive while sometimes stigmatizing women who exhibit the same qualities as "pushy." Often, this can have the effect of causing some women to rein in their behavior, sometimes to their detriment. "A colleague of mine told me about a situation in which a man and a woman, both well qualified [and internal candidates], were going for a CFO job," relates Cheryl Miller, CFO of AutoNation, a *Fortune* 150 automotive retailer. "The man said, 'I can do this role and I am qualified for this role and I won't stay unless I get it.' The woman said, 'I am behind you whatever you decide.' The man got the job."

In other cases, behavioral biases can cause women and their ideas to be overlooked.

Yvette Butler, president of Capital One Investing since 2015, has a lengthy background in the financial services industry, including stints at Wells Fargo, E*Trade, and Merrill Lynch. She recalls mixed-gender business meetings along the way: "Time and time again you would say something and it would go around and around the table, and a man would say the same thing and suddenly people would pay attention."

"Time and time again you would say something and it would go around and around the table, and a man would say the same thing and suddenly people would pay attention."

* **YVETTE BUTLER**, PRESIDENT OF CAPITAL ONE INVESTING

At the same time, says Butler, the relative lack of assertive behavior on the part of women can prove an advantage when it comes to the leadership skills they need to succeed. "It models the behavior that helps teams collaborate," she argues of the need to play the proverbial game.

In addition to gender, as in Butler's case, other factors must be considered when considering diversity. "Obviously, as an African-American woman I come with the full package," she says. "You don't know if somebody's reacting to your gender or your ethnicity or race."

A major factor that continues to hold women back is motherhood and the need to balance work and family. But there are signs that this age-old obstacle may be on the way

WOMEN IN FINANCE: BY THE NUMBERS

1. Percentage of female CFOs in the *Fortune* 500: **13.8**
2. Percentage of female CEOs: **4.0**
3. Percentage of women in the top five leadership positions in the S&P 500: **14.2**
4. Percentage of female accountants and auditors in the U.S.: **59.7**
5. Percentage of female financial managers: **49.6**
6. Percentage of bachelor's and master's degrees in accounting earned by women, 2013–14: **51.9**
7. Percentage of MBA degrees earned by women, 2012–13: **36.5**

Sources: Spencer Stuart (1), Catalyst (2, 7), CNNMoney (3), Bureau of Labor Statistics (4, 5), National Center for Education Statistics (6) to becoming, if not a non-issue, at least a concern shared by both partners in a marriage. "Do you ask men the same question?" was the way Elizabeth Reese, CFO of AGL Resources, an Atlanta-based energy company, responded when asked how she balances work and family.

For some women, like AutoNation CFO Miller, who married last year and has no children, the work-family balance conundrum has yet to come into play. "For me it's been a matter of work hard, play hard," is the way she puts it. Estée Lauder CFO Tracey Travis has two daughters (one a college graduate and the other just starting college) and admits there often were times when she had to draw the line when her children were growing up. "The weekends were off-limits" to work, recalls Travis, who held CFO positions at four other companies before joining Estée Lauder in 2012.

Family concerns, notes Spencer Stuart's Quint, are not exclusively the concerns of women these days. "It's more of a question of individuals," she says.

In any case, companies and those that recruit for them are increasingly seeing gender diversity not only as a worthy goal in and of itself, but also as a way to improve company performance. "If you come at it with a more diverse perspective, you create a more successful company," contends Capital One Investing's Butler.

"Women are better leaders because they're better able to draw on other emotional competencies," says Bryan Proctor, global leader of Korn Ferry's financial officer practice. The *Fortune* 500 companies, says Proctor, are only just beginning to catch on, but obviously have some catching up to do. "It's no secret that the top companies in the U.S. are deficient in terms of diversity as far as gender is concerned," he says. "There's been a small but slow movement in that direction."

But, he admits, this progress will take time. "It takes a long time to build up that bunch of candidates who are qualified," he says.

For a personal perspective on the growing role of women in finance, *CFO* spoke to 4 of the 67 women who have made it to the top finance position at *Fortune* 500 companies, getting their take on their career paths and the challenges (gender specific or otherwise) they have faced along the way. Their stories follow.

No Longer the Only One

✱ CHERYL MILLER, AUTONATION

Cheryl Miller is executive vice president and CFO of AutoNation, which is the largest retailer of automobiles in the United States. The company has 26,000 employees and booked nearly $21 billion of revenues in 2015.

Miller began her career in the financial management training program at Circuit City's corporate headquarters and has since racked up more than 20 years of corporate finance experience, including over 15 years in the auto industry, including retail, rental, distribution and captive finance.

She joined AutoNation in 2009 as treasurer and vice president of investor relations. Since becoming CFO in 2014, Miller is credited with helping AutoNation achieve key milestones, including attaining its lowest-ever sales, general, and administrative costs as a percentage of gross profits and becoming the only automotive retailer in the U.S. to earn an investment-grade rating.

But although Miller is relatively young (43) for her level of accomplishment, she nonetheless can look back to an era when there were hardly any women in finance, particularly insofar as the auto industry was concerned.

"I used to spend days in New York where I was the only woman present at the meeting," she says, maintaining that while this situation has changed, it's still only "a matter of degree."

Cheryl Miller's Résumé

- **Assumed her current post in:** January 2014
- **Previous finance positions:** treasurer and VP investor relations, AutoNation; VP and treasurer, JM Family Enterprises; VP investor relations and treasury, ION Media Networks; director corporate finance, Alamo/National Car Rental
- **Also of note:** Miller earned a BBA in finance at James Madison University and was recruited into the financial management training program at Circuit City, where she rose to structured finance manager. She was named public-company CFO of the Year in January by the *South Florida Business Journal*.

Photos courtesy the companies

Still, Miller is not alone as a woman in the executive suite, sharing that distinction with Donna Parlapiano, the company's senior vice president in charge of franchise operations and corporate real estate. She also credits a support network of both men and women for helping her along the way. AutoNation chairman and CEO Mike Jackson has been supportive of her, she says, noting that his wife, Alice Jackson, provided a close-up example of a successful businesswoman as a commercial real estate broker.

"I've been fortunate enough to have men that have made great mentors," Miller says. "Men who believe in equality and diversity."

Tracey Travis' Résumé

- **Assumed her current post in:** August 2012
- **Previous finance positions:** CFO, Ralph Lauren; SVP finance, Limited Brands; SVP finance, CFO, Intimate Brands; CFO, Americas, American National Can; business unit CFO, Pepsi Bottling Group.
- **Also of note:** Travis earned a BS in industrial engineering at the University of Pittsburgh and an MBA in finance and operations management from Columbia University. In 2008, she was named a top CFO by *Institutional Investor*. She is a board member of Campbell's Soup and the Women's Forum of New York.

Partners in Success

*** TRACEY TRAVIS, ESTÉE LAUDER**

If any woman could be said to have a female-friendly company to work for, it would have to be Tracey Travis, who became executive vice president and chief financial officer of cosmetics and personal care products giant The Estée Lauder Companies in 2012. Not only was the company founded by a woman, but the vast majority of the company's customers are women, as well as 84.7% of its 44,000 employees, 3 of 12 of its executive officers, and 7 out of 15 of its board members.

Given that Travis was CFO of Ralph Lauren from 2005 to 2012 and held finance positions at Intimate Brands and Limited Brands before that, one would be tempted to look at her career as one conducted (and nurtured) in companies that had a strong female cohort. But this was not the case when she started out.

She began her professional life in 1983 as an engineer at General Motors, where, as an African-American woman in a testosterone-laden industry, she "felt challenged by gender more so than race." It was while working in Detroit that she met her husband, Richard Travis, a lawyer specializing in labor practice, whom she credits with being "an incredibly supportive partner throughout my career."

With the addition of her two daughters to the family, "we decided we needed a live-in, but in terms of who would actually be the parent, who would be available in terms of parent-teacher conferences, we decided it would be [her husband]," she says.

This supportive family setup was probably also a great help when Travis engineered her career shift from engineering to finance, going back to school and getting her MBA from Columbia University with a double concentration in finance and engineering operations. She eventually parlayed her background into work at Pepsi Bottling, including six years managing a bottling plant, before moving to the fashion and personal care sectors.

Her work spanning decades and industries has given her a singular perspective on issues of diversity. "Early in my career, women who were very smart and very driven were not seen the same as men with these same characteristics," she recalls.

"Fast-forward 30 years to see that the current chairman and CEO at General Motors [Mary Barra] is a wonderful woman," she says. "Certainly we've made progress, but certainly there is progress to be made."

On the Move

*** KELLY KRAMER, CISCO SYSTEMS**

Kelly Kramer is executive vice president and CFO of Cisco Systems, where she manages the financial strategy and operations of a company with more than 72,000 employees and about $50 billion in revenue. Kramer, who joined Cisco in 2012 after spending 20 years work-

Kelly Kramer's Résumé

- **Assumed her current post in:** January 2015
- **Previous finance positions:** SVP, corporate finance, Cisco; VP & CFO of GE Healthcare Systems; other CFO positions at GE Healthcare Systems
- **Also of note:** Kramer was general manager of global FP&A at Groupe Limagrain, a France-based agricultural cooperative group. She earned a BS in mathematics from Purdue University.

ing at General Electric across many divisions and countries, ascended to the top finance spot at the tech giant in early 2015.

It was at GE that she met her husband, Dennis Kramer, 24 years ago. Dennis, who retired two years ago, had an electrical engineering background, which gave him a level of specific technical expertise that made it more difficult to jump from job to job. "Financial skills are a lot more fluid," says Kelly Kramer. "It's a lot easier to jump from medical to locomotive finance, for example, than it would be to move between similar engineering disciplines."

As a result, it has been her career that has propelled the most geographical movement on the part of her and her family, she says, with her move to California to work at Cisco "our 13th relocation as a family."

Today, Kramer has a C-suite leadership role in an industry not particularly noted for its diversity, at least insofar as its lower and middle ranks are concerned. "It's pretty well documented that tech has been low on the gender-diversity scale," she admits.

At the same time, as she points out, despite their relative absence in line-level jobs like programming and coding, women have managed to make it to the upper echelons in many tech companies like Cisco, where 40% of the executive team is female. And this has proven to be particularly the case in finance, when you consider her and the other women cited above who have succeeded becoming CFOs at major tech companies.

All the same, the representation of women in senior finance positions has a long way to go, says Kramer. "Obviously, it's not where it needs to be."

Championing Diversity

✱ ELIZABETH REESE, AGL RESOURCES

Elizabeth (Beth) Reese was named CFO of AGL Resources in 2015, directing finance, accounting, and business-planning functions for the Atlanta-based energy services holding company, which operates seven natural gas distributors in seven states, servicing some 4.5 million customers.

Since at least 2012, when she became the first woman president of AGL's Nicor Gas utility in Illinois, Reese has been a champion of diversity-related programs at the company. That year she became the first chair of its LEAD (Leadership, Empowerment, Acceptance, Diversity) Council.

In this capacity, Reese has come to appreciate the importance of nurturing women at the earliest ages. "We need to get girls age eight and nine interested in math and the other STEM [science, technology, engineering, and math] subjects," she says.

"Certainly progress is being made because women are starting their careers earlier enough," says Reese. "If you think of the different careers from which CFOs are drawn, such as accounting and banking—if you look at that as a candidate pool—they're still very dominated by men."

In the meantime, as this set of facts changes, Reese says she enjoys working in the energy/utilities sector. The perspective many people have of the industry is that it's a male-dominated one, she says. "But I don't think we're different from any other industry." CFO

Elizabeth Reese's Résumé

- **Assumed her current post in:** May 2015
- **Previous finance positions:** VP finance, VP finance and business innovation, VP finance and controller, AGL Resources; senior manager in audit and assurance services, Deloitte & Touche
- **Also of note:** Reese belongs to a number of organizations, including The Economic Club of Chicago, where she is treasurer and a director. She earned a BA in business and economics from St. Andrews Presbyterian College and a Masters of Accountancy at the University of Georgia's Terry College of Business.

ED ZWIRN IS A FREELANCE WRITER BASED IN BETHEL, NEW YORK.

Photos courtesy the companies


RESERVE NOTE
20
TWENTY DOLLARS
ONE DOLLAR

THE 2016 *CFO* STATE TAX SURVEY

GOING TO THE SOURCE

STATES ARE REACHING ACROSS BORDERS TO RAISE TAX REVENUE FROM COMPANIES.

BY EDWARD TEACH

FROM A TAX PERSPECTIVE, the 50 states are in better shape today than they were before the Great Recession. Adjusted for inflation, they collected 5.6% more tax revenue in mid-2015 than at the peak in the third quarter of 2008, according to the Pew Charitable Trusts.

But the recovery has been uneven. More than 20 states still collect less tax revenue than they did at their prerecession peaks, says Pew, as economic conditions vary widely across the country. Meanwhile, a number of states face serious long-term fiscal challenges in the form of debt and unfunded retirement costs.

As a result, states are increasingly reaching beyond their borders for more tax revenue. Some have enacted nexus rules to levy income taxes on out-of-state companies with a significant economic presence, but no physical presence, in their states. Others are widening the notion of physical presence to collect sales tax from remote sellers through "click-through nexus."

Many states now have sales-only apportionment formulas, hoping to shift some of the tax burden from in-state businesses to out-of-state companies and encourage more investment within their borders. And an increasing number of states are taxing companies' service revenue based on where their customers benefit from the service.

Getty Images

EXPANDING NEXUS

With the lion's share of retail growth moving to the Internet, states have been hungering for tax revenues from remote sellers while trying to protect brick-and-mortar retailers. In recent years, a handful of states have enacted economic nexus laws that enable them to impose an income tax on companies with no physical presence in the state if their sales in the state exceed a given threshold during the tax period.

The Supreme Court has not weighed in on economic nexus for income tax purposes, but sales tax nexus is another story. In the landmark 1992 case of *Quill* v. *North Dakota,* the Court held that a state could not require out-of-state retailers with no physical presence in the state to collect sales and use taxes on the products they sell there. For the states, which rely heavily on sales tax revenues, the decision would prove a serious setback.

Congressional attempts to pass a federal law requiring remote sellers to collect sales tax have failed to gain traction. But starting with New York in 2008, 18 states have expanded the concept of physical presence by passing so-called "click-through nexus" laws. Such laws mandate that if an affiliate in the state refers, say, $10,000 in sales to a remote seller by providing a link on its website, the seller is presumed to have a physical presence in the state and must collect sales tax in that state (that is, unless the seller can prove that the affiliate did not engage in solicitation on its behalf).

Click-through nexus has not been tested by the Supreme Court. But last year, in a concurrence to the Court's ruling in the sales-tax-related case of *Direct Marketing Association* v. *Brohl,* Justice Anthony Kennedy said the Court should reexamine the 1992 decision in *Quill.* "There is a powerful case to be made that a retailer doing extensive business within a state has a sufficiently 'substantial nexus' to justify imposing some minor tax-collection duty, even if that business is done through mail or the Internet," Kennedy wrote. "The legal system," he concluded, "should find an appropriate case for this Court to reexamine *Quill.*"

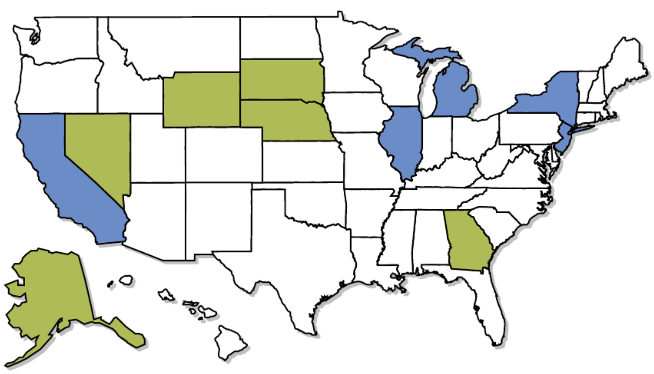
Some states are eager to provide a test case. "Justice Kennedy's concurrence has emboldened a number of states to reexamine nexus laws," says Pilar Mata, tax counsel at the Tax Executives Institute. Alabama's Department of Revenue, for example, adopted a rule in October requiring an out-of-state seller that sells more than $250,000 in tangible personal property to collect sales tax, even if the retailer has no physical presence in the state—a rule clearly at odds with *Quill.* South Dakota's legislature passed a similar law this year.

Such rules will create quandaries for tax directors at remote sellers that exceed the sales threshold. "They may think the Alabama rule or the South Dakota law is uncon-

The 2016 *CFO* State Tax Survey Results

The charts on this page and the following pages highlight states ranked best and worst on six key measures.

1 What is your overall impression of the tax environment in each state?



Survey respondents ranked states on a scale, with:
1 = Very fair and predictable
5 = Very unfair and unpredictable

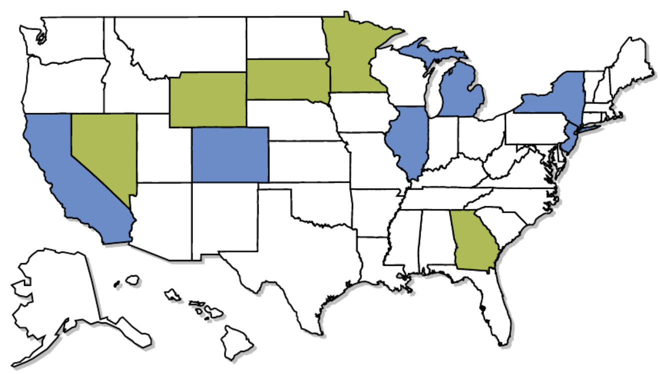
VERY FAIR AND PREDICTABLE

1. **WY** [2.29]
2. **AK** [2.32]
3. **NV** [2.33]
4. **SD** [2.35]
5. **GA, NE** [2.38]

VERY UNFAIR AND UNPREDICTABLE

46. **NJ** [3.44]
47. **MI** [3.53]
48. **IL** [3.59]
49. **NY** [3.79]
50. **CA** [3.87]

2 How fair and transparent are corporate income tax audits in each state?



1 = Very fair and transparent
5 = Very unfair and nontransparent

VERY FAIR AND TRANSPARENT

1. **NV** [2.01]
2. **SD** [2.12]
3. **WY** [2.17]
4. **MN** [2.20]
5. **GA** [2.27]

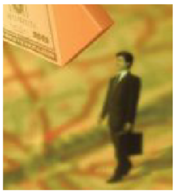
VERY UNFAIR AND NONTRANSPARENT

46. **CO** [3.16]
47. **IL** [3.24]
48. **NJ** [3.28]
49. **MI, CA** [3.39]
50. **NY** [3.52]

stitutional and that the federal courts will overrule it, but that's a long way down the road," says Harley Duncan, managing director and state and local tax leader in KPMG's Washington National Tax Practice. Will sellers comply with the new rules, and if not, will the states enforce them? "Remote sellers have to figure out how they're going to respond," he says.

MARKET-BASED SOURCING

Another trend is the adoption by states of a market-based approach to apportioning revenue from the sale of services



The migration to market-based sourcing "has opened up a whole new set of issues for corporate taxpayers."

—Harley Duncan, KPMG

and intangibles. "This is one of the fastest-moving changes I've seen in corporate taxation in the 30-plus years I've been working in this field," says Duncan.

Formerly, most states followed the cost-of-performance method, which sources 100% of a company's service income to the state where the greater costs of providing the service are incurred. Now, more than 20 states have switched to market-based sourcing, which apportions such income to the states where either the service is delivered or the benefit of the service is received. As a result, multistate firms may pay taxes to multiple states on services sold, not just one.

The migration to market-based sourcing "has opened up a whole new set of issues for corporate taxpayers," says Duncan. There are considerable differences in the ways that states have adopted the method. In some states, for example, service income is apportioned to where the taxpayer's direct customers are located. "Other states will say that if you're providing a service to your customer and they ultimately use that to provide a service to their customers, you have to look through your customer to your customer's customers," says Duncan.

In short, market-based sourcing poses a considerable compliance challenge. "Implementing it in a company that may have dozens of entities and filing obligations in dozens of states is not simple," says Duncan.

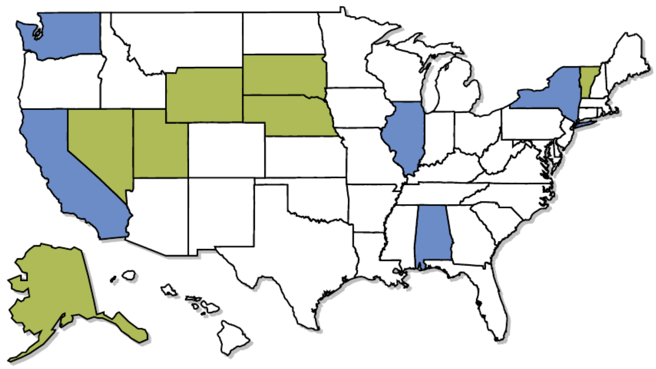
Meanwhile, a number of states still use the cost-of-performance method, which means a company can end up being taxed on more than 100% of its service revenue if some of that revenue is generated in a state that uses market-based sourcing. "You can end up getting whipsawed," says Duncan.

RETROACTIVE LAWS

During the past decade, there has been an increase in retroactive tax legislation, says Mata. Such legislation stems from the 1994 case *United States* v. *Carlton,* when the Supreme Court upheld a retroactive amendment to federal estate tax law that disallowed a previous deduction taken by the defendant.

"The Court said the legislation was fine because it was curing a mistake and Congress had acted quickly in doing so," says Mata. "Since then, we've had a number of state leg-

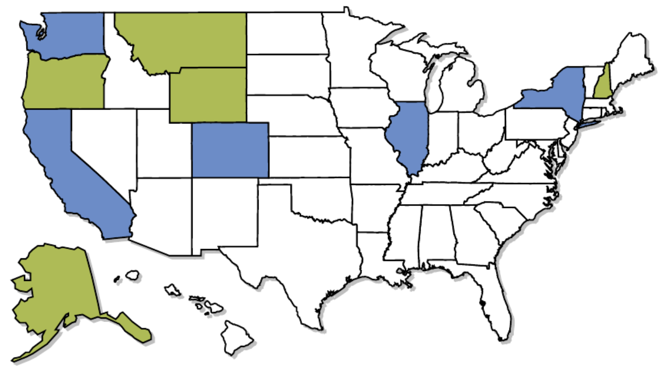
3 How would you rate each state's stance on asserting income tax nexus when companies have only an economic presence in the state?



1 = Not Aggressive
5 = Very Aggressive

NOT AGGRESSIVE	VERY AGGRESSIVE
1. **WY** [2.41]	46. **WA** [3.61]
2. **AK, NV** [2.50]	47. **IL** [3.63]
3. **NE** [2.57]	48. **AL** [3.74]
4. **SD, VT** [2.58]	49. **NY** [4.10]
5. **UT** [2.61]	50. **CA** [4.16]

4 How would you rate each state's stance on asserting sales and use tax nexus?



1 = Not aggressive
5 = Very aggressive

NOT AGGRESSIVE	VERY AGGRESSIVE
1. **MT** [2.58]	46. **WA** [3.88]
2. **AK** [2.63]	47. **CO** [3.92]
3. **OR** [2.68]	48. **IL** [4.04]
4. **WY** [2.77]	49. **NY** [4.22]
5. **NH** [2.78]	50. **CA** [4.40]

islatures retroactively change a statute where there's been a taxpayer victory in court." But the periods between the enactment of the initial legislation and the retroactive legislation are getting longer, she says, and the circumstances are changing.

Perhaps the most famous of these cases, *IBM* v. *Michigan Department of Treasury,* involved IBM's decision in 2008 to use the Multistate Tax Compact's three-factor (property, payroll, sales) apportionment formula, instead of the state's new single sales factor formula. (Michigan had adopted the compact in 1970.) In 2014 the Michigan Supreme Court affirmed the validity of the compact and IBM's choice, prompting the state legislature to retroactively eliminate the compact (and thereby stick IBM with a bigger tax bill).

Gillette and other taxpayers have since challenged the retroactive legislation, and the state's supreme court is considering whether to accept the case. Meanwhile, legislation concerning the validity of the Multistate Tax Compact is active in a handful of other states. If other states uphold the compact, their legislatures may also decide to retroactively amend their laws, says Mata.

"This is an important area in state tax," she says. The ability of a state to retroactively change a statute "really injects risk into tax planning."

THE SURVEY

CFO's latest biennial state tax survey was conducted in March and April in cooperation with KPMG and the Tax Executives Institute. Ninety-eight tax directors and other finance executives responded to the survey.

As in previous surveys, Wyoming, South Dakota, and Nevada were considered among the fairest of the fair in terms of their tax climate for business. That isn't very surprising, since none of these states levies a corporate income tax.

And also as in previous surveys, respondents ranked states like California, New York, New Jersey, and Illinois as providing the least fair and predictable tax environments for business. These states are also seen as very aggressive in pursuing economic nexus and adversarial in tax audits.

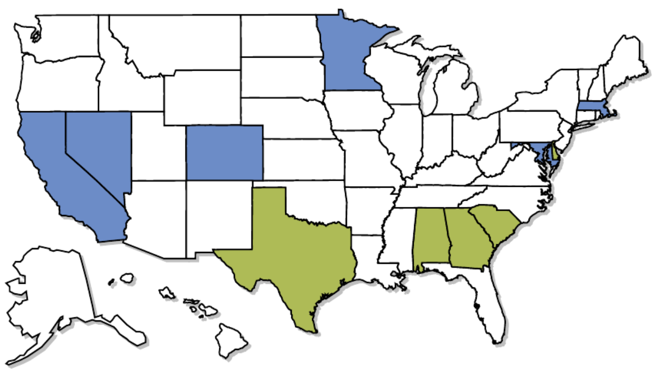
"In many cases, you have a clear disagreement where you need the court to resolve the question for everyone," comments Mata. "In other cases, how the law should be applied isn't clear. Some states are more willing to work with taxpayers to get to a right answer that works for everybody; other states are not."

EDWARD TEACH IS EDITOR-IN-CHIEF OF *CFO* MAGAZINE.

METHODOLOGY

This survey has been conducted biennially since 1996 with the help of KPMG LLP, the audit, tax, and advisory firm, and this year with the additional help of the Tax Executives Institute. The survey aims to capture tax executives' impressions about differing tax environments in each state in which they do business. The results presented here represent those impressions, rather than quantitative assessments of actual policies, tax rates, or other criteria.

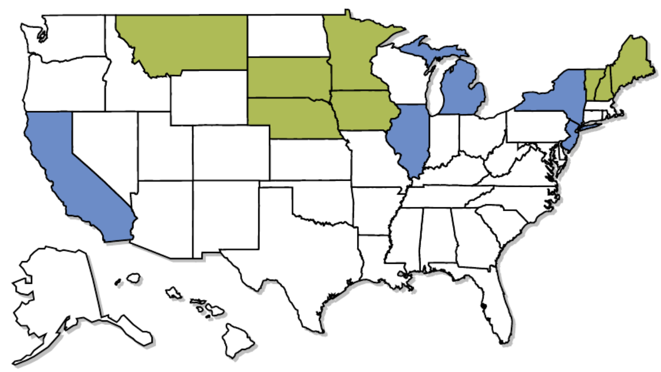
5 How would you rate each state's willingness to grant business tax incentives to individual companies?



1 = Very willing
5 = Not willing

VERY WILLING	NOT WILLING
1. **GA** [2.48]	46. **NV** [3.13]
2. **DE** [2.50]	47. **MI** [3.15]
3. **TX** [2.53]	48. **MA** [3.18]
4. **AL** [2.57]	49. **CO, MD** [3.22]
5. **SC** [2.61]	50. **CA** [3.28]

6 How concerned are you that your state's fiscal condition will negatively affect your company in some way in the next 12 months?



1 = Not concerned
5 = Very concerned

NOT CONCERNED	VERY CONCERNED
1. **MT** [2.06]	46. **MI** [3.45]
2. **VT** [2.19]	47. **NJ** [3.53]
3. **NE** [2.20]	48. **NY** [3.60]
4. **MN, SD** [2.22]	49. **CA** [3.74]
5. **IA, ME, NH** [2.24]	50. **IL** [4.03]

Making the Connection

In the long run, the future of mobile payments seems bright. But near-term obstacles must be cleared first. By Bob Violino

The slow but steady rollout of mobile point-of-sale systems in retail stores, the growth of mobile wallets, and the ongoing need for stronger data security are among the major trends today in mobile payments. ¶ This is clearly a still-emerging market overall, based on industry research. The total global user base for mobile payments will rise from an estimated 690 million users in 2014 to 4.77 billion users by 2019, according to research firm Ovum.

"Mobile payment technology and deployment is still in its infancy," but is poised for rapid growth, says John Pironti, president of IP Architects and risk adviser with ISACA, an association serving IT governance professionals.

Of the three main segments covered in a study released by Ovum in February 2016—mobile commerce (m-commerce), person-to-person (P2P) mobile money transfers, and mobile proximity payments—m-commerce is the largest in terms of users and transaction value. By 2019, the global transaction value of m-commerce will surpass $693 billion, predicts Ovum (see chart). (Ovum defines m-commerce as the remote purchase of goods and services from online retail merchants via a connected mobile device.)

Helping to drive the growth of m-commerce is the widespread adoption of increasingly powerful smartphones with larger screens, the research firm says. Also, a growing number of retailers are optimizing their sites for mobile shopping.

Mobile proximity payments are the smallest but fastest-growing segment of the mobile payments market, Ovum says. The global user base for mobile proximity payments—both near-field communications (NFC) and non-NFC—is expected to rise from 44.6 million in 2014 to 1.09 billion in 2019, with most of the base using NFC technology.

Still, despite growing awareness of mobile payments, less than 20% of consumers in North America are actually using them regularly, according to a 2015 Accenture survey of 4,000 smartphone users in the United States and Canada. Fewer than one in five (18%) use their mobile phones to make at least one payment a week, the report says, with mobile-payment usage growing just 1% from 2014.

The survey identified two groups that are driving mobile-payments usage: high-income consumers, and millennials—people between the ages of 18 and 34.

Mobile POS Adoption

Efforts to make point-of-sale transactions more secure in general are contributing to the adoption of mobile POS technology. U.S. retailers are slowly but surely migrating to new systems to align with chip-and-PIN requirements for card transactions. The technology, also known as EMV (for Europay, Mastercard, and Visa, which created the EMV technical standard), involves the use of embedded chips in cards, which encrypt account information and personal identification numbers.

While much of the world has had chip-and-PIN in place for years, the United States has lagged in deploying the necessary infrastructure. Starting on October 1, 2015, retailers that have not deployed new POS terminals to accept EMV cards assume liability for card fraud. Despite this liability shift, the rollout of EMV-compliant terminals has a way to go. According to a January survey by The Strawhecker Group, only 37% of retailers were EMV ready, with 72% expected to be compliant by the end of 2016.

For mobile payments, the good news is that "retailers are using this opportunity to purchase or upgrade systems that will allow them to not only take chip-and-PIN cards but also near-field communications capabilities," Pironti says. "One of the key challenges to adoption of this technology has been the lack of infrastructure to support it. With this new adoption this challenge [can] be overcome."

EMV "is accelerating adoption of mobile payments [by] helping with distribution of NFC-capable terminals," agrees Thad Peterson, senior analyst at Aite Group, a research and consulting firm specializing in financial services. Nearly all EMV terminals also include

Thinkstock

NFC capability, he notes. "Also, EMV transactions can take longer than traditional card transactions at the POS, and this increased latency adds to the value of mobile payments, which are very fast."

Still, others see the proximity payments market as remaining sluggish.

"There's some limited use, but consumers generally don't see the advantage and the use case isn't compelling," says Gilles Ubaghs, senior analyst, financial services technology, at Ovum. "The U.S. in particular still has a pretty poor contactless infrastructure."

Most consumers "are fundamentally pretty conservative when it comes to payments, and will need a fairly big push to change what they do," Ubaghs says. "If it's a slower or clunkier process, including on the initial signup, then it has no chance. On the flip side, it really needs a lot of merchant buy-in to control that other end of the experience, and help push it in store, amongst staff, and so on."

The rollout of mobile POS is a generational consideration, Pironti adds. "Consumers do not necessary like change, especially when they are not sure it is necessary," he says. "The use of mobile POS represents significant change to the traditional consumer."

As younger generations are becoming valuable consumers, they will expect the option of mobile POS to be available and might be dismissive if it is not available for their transactions.

"If providers and retailers want to speed up the rollout and adoption of mobile POS, they are going to have to provide incentives that will be beneficial not only to the merchant but also to the consumer," Pironti says. "It will take both to drive faster adoption."

Indeed, a key to adoption of mobile payments is to provide a user experience that is simpler, easier, and more convenient then using a traditional payment card, Pironti says. Smartphone payment systems are getting easier to use, but the ease of use and lack of complexity needed to swipe or insert a card is still easier.

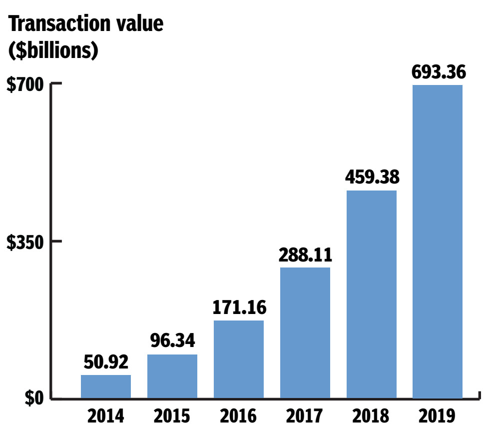
"The consumer will go to the path of least resistance," Pironti says. "Mobile payments based on phones still require the phone to be charged, available [for example, the user can't be on a call when making a payment], and properly configured."

"If providers want to speed up the adoption of mobile POS, they are going to have to provide incentives that will be beneficial not only to the merchant but also to the consumer."

›› John Pironti, President, IP Architects

Rise of Mobile Commerce

Global m-commerce transaction value



Source: Ovum, February 2016

The Security Challenge

Securing mobile payments against hacker attacks and other intrusions—and assuring consumers that these types of transactions are indeed secure—remain among the biggest challenges facing the market.

"Electronic security measures, like those included in Apple Pay, provide commercially reasonable security capabilities given the current state of technology available for consumer use," Pironti says. "The challenge is more in user perception and user activities. If the user does not believe it is secure, then perception will often outweigh reality."

Also, if the user is not willing to be an active partner and participant in providing security in the transaction, then the payment process will be only as strong as the user's behavior, Pironti says.

"For instance, if the user does not use strong passwords or properly shield their payment information from their screen, they make it easier for an adversary to observe them from afar, steal their device, and use it for illegal transactions," Pironti says. "There will never be a perfect security solution. The trick is to make the security capabilities good enough to make it too hard for an adversary to take interest in a particular payment method or user."

A survey of more than 900 cybersecurity experts published by ISACA in September 2015 showed that a large majority (87%) expected to see an increase in mobile payment data breaches over the next 12 months. The study showed that only 23% of the security professionals think mobile payments are secure in keeping personal information safe. Nearly half (47%) say mobile payments are not secure, and 30% are unsure.

Among the major vulnerabilities associated with mobile payments are the use of public Wi-Fi, lost or stolen devices, phishing or "shmishing" (phishing attacks via text messages), weak passwords, and user error.

In the emerging mobile payment landscape, ISACA states that there is no generally accepted understanding of which entity is responsible for keeping mobile payments secure—consumers, payment providers, or retailers.

Experts say good mobile payments security requires layers of data protection for both the hardware and software components, and must be adaptable to address the fact that adversaries evolve their methods, practices, and technologies. It's not something that can be stagnant, but requires constant attention and evolution to adapt to changing threat scenarios.

A critical technology that is transforming mobile payments is tokenization, Ubaghs says. Tokenization makes it possible to put payment credentials securely anywhere, from wearables to smart goods of any kind, he says. "In terms of mobile payments, that really opens up the capacity to add payments into all sorts of apps and services securely," Ubaghs says.

Some are optimistic about the progress being made in securing mobile payment transactions.

"While consumers' security concerns are well documented, two important trends should be allaying those fears," says Peter Olynick, retail banking practice lead at Carlisle & Gallagher Consulting Group, a management-technology consulting firm. One is that improved authentication technologies such as biometrics and tokenization are more widespread. The other is that payment card issuers and consumers are becoming more comfortable with transaction-level security.

Mobile Wallets

The concept of the mobile wallet—a way to carry credit card or debit card information in digital form on a smartphone, tablet, or other mobile device in order to make purchases—is expected to gain steam, although usage has so far been slow, primarily because of the limited distribution of NFC-capable devices.

The iPhone 6 was the first device to offer Apple Pay and it's only been out for about 16 months, Peterson notes, while both Android Pay and Samsung Pay are less than eight months old. "Growth will continue to be fairly slow for the next two years, but then expect to see rapid growth once critical mass has been achieved for devices and terminals," says Peterson.

Among the leading mobile wallets available today are Android Pay, Apple Pay, Chase Pay, MCX, PayPal, Samsung Pay, and Wal-Mart Pay.

A new development in this area is the emergence of bank wallets. For example, Capital One and RBC have launched their own mobile wallets linked to their mobile banking apps. "This trend will continue for the next several years and we expect that most major banks and many smaller banks will offer their own branded wallets," Peterson says. "Most banks will offer their proprietary wallet in addition to enabling access to Apple, Samsung, and Android pay, so the customer can choose the alternative that best meets their needs."

There is no clear winner on the mobile wallet front at this point, Pironti says. "I think that the mobile platform providers [for example, Apple and Google] have the distinct advantage in this race compared to independent software developers," he says.

Consumers are looking for a seamless user experience with wallets, Pironti says. If they have to navigate multiple applications or be concerned about an application's ability to interact with their smartphone, they are less likely to be interested in using a wallet. It comes down to ease of use.

A Mobile Future?

The consensus among those who follow the market is that mobile payments are destined to become far more commonplace in coming years, as the number of mobile POS terminals and providers of payment solutions, such as mobile wallets, continues to increase.

Not to mention the number of smartphones. The Mobility Report released by Ericsson in June 2015 predicted that advanced mobile technology will be globally ubiquitous by 2020, with 70% of people using smartphones and 90% covered by mobile broadband networks. Smartphone subscriptions will more than double by 2020, reaching 6.1 billion, the report says, and by 2020 80% of all mobile data traffic will come from smartphones.

In addition, says Olynick, wallet providers are implementing three types of reuse incentives: rewards, better shopping and ordering experiences, and intelligent payment account selection. Wallets will be able to help customers determine the best account to pay for each transaction, he says.

"We believe we are close to the inflection point for mobile payment volume and will see large increases over the next five years," Olynick says. CFO

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A Generational Thing

Use of mobile payments in the past 12 months by age

Age group	2011	2012	2013	2014
18–29	20%	26%	28%	34%
30–44	16%	18%	21%	31%
45–59	8%	9%	13%	16%
60+	5%	8%	7%	7%
Total	12%	15%	17%	22%
Number of respondents	2,002	2,291	2,341	2,603

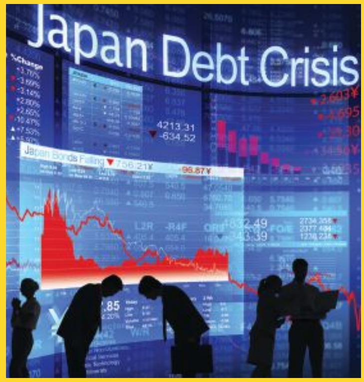
Note: Percentages are of those in each group who have a mobile phone

Source: Federal Reserve, March 2015

Double Trouble

Japan's malaise continues, but the slowdown in China poses a greater risk to Asian economies.

By David W. Owens



44.5

Level of optimism in Japan's economy, down from 58.1 in the previous quarter

The global economic outlook appeared to be taking a turn for the worse in the first quarter of 2016, judging from the latest Duke University/*CFO* Magazine Global Business Outlook Survey. Especially noticeable was a sharp drop-off in optimism recorded by Japanese companies, but executives in many countries also continued to gauge their own outlooks in relation to China.

Overall, little or no inflation was expected in any of the three segments constituting the Asia region in the survey—China, Japan, and all other countries in Asia. The last mentioned was dominated by India, which represented 37% of the respondents in the segment. The next-largest contingents were from Singapore (12%) and the Philippines (11%), while no other country topped 10% in terms of representation.

Regardless of where they were located, first-quarter respondents clearly were nervously eyeing a disappointing year for China's business and economic performance. In a testament to the economic muscle that China now flexes, executives throughout Asia identified the slowdown in China as presenting the greatest risk by far to their own economies, potentially causing them to slide into recession. Other risks—such as currency valuations, political risk, and economic slowdowns aside from China's—placed distant seconds, thirds, and fourths.

In fact, the confidence of executives in China has been trending downward from quarter to quarter for the better part of a year. In each of the past three quarters, a little more than 75% of the survey's respondents from Chinese companies reported that they were less optimistic about the Chinese economy than they were the previous quarter.

This quarter, finance executives in Japan joined their Chinese counterparts in expressing their pessimism, with 64% saying they were less optimistic about the Japanese economy. This represented a substantial rise from the two prior quarters, when the percentage was in the 30s. It was an even more worrying reversal from year-ago levels, when 61% of respondents from Japan said that they were more optimistic, not less, about their economy.

In contrast, reports from the rest of Asia held fairly steady in the first quarter of the year. At 46% of the respondents, the optimistic contingent continued to hold sway over those who were less optimistic (35%).

The trends were similar when respondents were asked to weigh in on their optimism about the prospects for their individual companies. A majority of executives from both China and Japan expressed doubts about their own companies' future performance, while 55% of respondents outside of those two countries reported a rise in optimism about their companies.

Interestingly, the gloomy outlook

Optimism falls in China and Japan* ...

	China	Japan	Other Asia (incl. India)
Less optimistic about the country's economy	76%	64%	35%
Less optimistic about own company	58%	60%	26%

*Compared with Q4 2015. Percentage of respondents

... but China remains more confident

	China	Japan	Other Asia (incl. India)
Optimism about own country	56.4	44.5	60.3
Optimism about own company	60.6	47.5	64.1

Note: Rated on a scale of 0 to 100

In China, companies may be looking to spend their way out of the doldrums.

in China was not reflected in the overall ratings Chinese respondents gave the economy or their own companies this past quarter. Although still 10 points lower than year-ago levels, Chinese executives' level of economic optimism was 56.4 out of 100. This represented a rebound from the previous quarter's 47.7 rating, and, combined with the stronger ratings seen in India and other Asian countries, helped pull up the region's overall rating. The same held true for respondents' own-company ratings.

PESSIMISM IN JAPAN

But in Japan, the bottom fell out of optimism ratings for both the economy and own-company performance. Economic optimism plunged to 44.5 out of 100, compared with the previous quarter's 58.1, and own-company optimism fell to 47.5 from the previous quarter's 57.2.

The pessimism in Japan was reflected in a greater reluctance to increase spending in key categories and a greater tendency to hold on to their cash. Twelve-month projections for capital spending came in at an anemic 1.8%, and planned spending on technology was similarly low, at 2.4%. Plans for advertising, marketing, and research and development were somewhat better, but still were much less robust than was seen six months ago. Meanwhile, executives from Japan reversed a two-quarter trend of lightening their balance sheets and expected cash to increase by 3.5% on average over the next 12 months.

Companies in other Asian countries were more willing to shed cash and spend in key categories—most notably in China, where respondents may have been looking to spend their way out of their recent doldrums. There, cash on the balance sheet was expected to decline by a substantial 6.3% over the next year, while spending plans in four categories—capital spending, technology, R&D, and advertising and marketing—all showed upticks from the previous quarter's cautious forecasts.

In the countries outside of Japan and China, executives projected a much more modest decline of 1.7% in cash on the balance sheet. However, they matched their counterparts from China in terms of their projections for capital spending, advertising and marketing, and R&D. They also appeared confident enough to maintain technology spending at relatively high levels, in line with the trend seen throughout the past year.

Finally, Japan's belt-tightening may also account for the nearly non-existent expectations (0.9%) for growth in wages and salaries over the next 12 months. Wages and salaries elsewhere in Asia, including China, were expected to rise much faster than inflation: by 3.7% in China and by 4.8% in India and the other Asian countries.

But the outlook for employment is less rosy across the board. Projected full-time employment increases barely edged above zero in Japan and in the other Asian countries, while executives in China expected full-time employment would shrink by about 2%. Companies were not looking to shift employment into the temporary sector, either, with negative numbers posted in China, Japan, and the other Asian countries alike. Recovery in employment levels may have to wait for the rest of the world to catch up.

In the end, Japanese companies will still have to regain confidence in their government's latest efforts to yank the country from the malaise it has suffered for more than a decade. But executives in the region—and indeed, around the globe—still look to China for the telltale signs that will influence their own futures. CFO

Asian Employment Ebbs

Projected changes over the next 12 months*

	China	Japan	Other Asia (incl. India)
Wages and salaries	3.7%	0.9%	4.8%
Full-time employment	-2.1%	0.2%	0.3%
Temporary employment	-2.1%	-3.4%	-1.4%

*weighted averages

Japan Tightens Its Belt

Projected changes over the next 12 months*

	China	Japan	Other Asia (incl. India)
Cash on balance sheet†	-6.3%	3.5%	-1.7%
Capital spending	4.0%	1.8%	4.5%
Advertising and marketing spending	4.8%	3.6%	5.0%
Technology spending	3.9%	2.4%	6.4%
R&D spending	4.8%	3.8%	4.6%

*weighted averages †Public firms only

(Specialized) Help Wanted

Around the globe, companies' hiring plans are targeting their most critical needs, according to a new survey. By Chris Schmidt

Around the world, senior finance executives believe that their companies need to find more skilled or specialized workers in order to meet business growth targets. Most are focusing more on the need to add staff that would directly boost revenue growth (in business management and sales and marketing, for example) rather than on staff that are revenue-neutral (back office, support). In addition, differences in economic optimism are reflected in the hiring plans shared by executives in specific countries and regions.

These are key themes from the ninth annual survey of senior finance and corporate leaders from large companies around the world, conducted by CFO Research and sponsored by American Express. This year's study surveyed 651 senior executives at companies with a minimum of US$500 million in annual revenues. The full results of the survey are published as the *American Express/CFO Research Global Business and Spending Monitor 2016* (available at www.cfo.com/research).

Overall, the global outlook has softened. Outside of a handful of bright spots, such as the United States, most executives completing the survey reported little revenue growth by their companies over the past year. However, worsening outlooks for many countries are offset by strength in a few others, and the global average for increased spending and investment actually shows a slight increase over last year's survey results.

STAFFING PRIORITIES

The survey asked senior executives to identify the hiring priorities for their own companies. The wide range of responses reflects the wide range of levels of economic optimism found in countries and regions. Globally, executives report that they expect their companies' headcount to increase by 9% on average in 2016; that relatively strong average can be attributed to large increases expected by companies in the U.S., Mexico, and India. (See Figure 1.)

The need to strategically add staff is illuminated by the one-half (51%) of surveyed executives who agree that their company's performance goals have been impeded by the inability to hire skilled or specialized workers. In addition, 44% say that their companies have been affected by difficulty in hiring sales and marketing specialists, and 43% cite shortfalls in hiring for management positions and for IT staff.

When asked to explain exactly how they plan to attract targeted employees, respondents note that they expect to employ a range of initiatives in order to fill their critical employment needs—including raising wages or salaries, improving benefits offerings, enhancing the working environment, and adjusting working conditions. (See "Top Employee Attraction & Retention Strategies," facing page.)

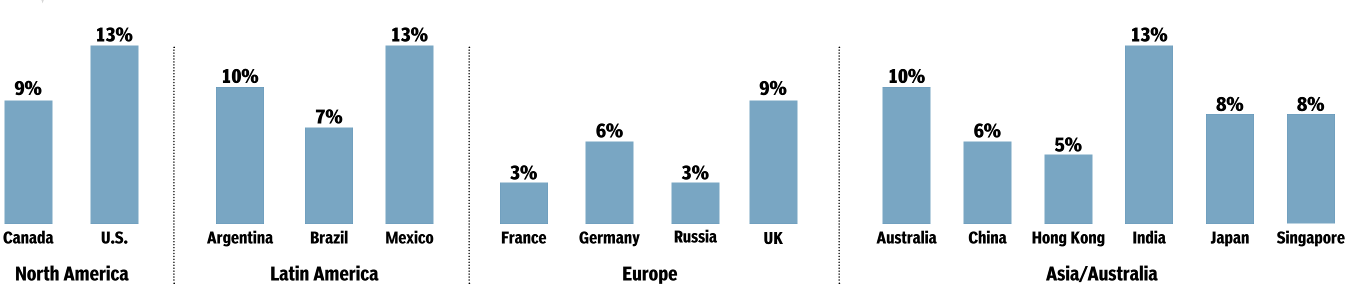
Highlights for each region are provided below.

NORTH AMERICA

The survey finds that 71% of respondents in North America (U.S. and Canada) currently anticipate economic expansion in their countries' economies

FIGURE 1

During the next year, how much do you expect your company's number of employees to change worldwide?



Average increase in headcount over the next year, by country over the next year. North America–based finance executives expect hiring to increase 12% in 2016. The U.S. (13% increase) is among those countries at the top of the global list predicting an uptick in hiring, while Canadian executives expect a 9% increase.

U.S. senior executives say their companies' performance goals have been affected most by difficulty in hiring skilled or specialized workers (57%). In Canada, survey respondents cite difficulty in hiring both management and skilled or specialized workers (each 50%). In order to address their hiring challenges, both Canadian (70%) and U.S. (52%) companies will make greater use of temporary or contract workers.

LATIN AMERICA

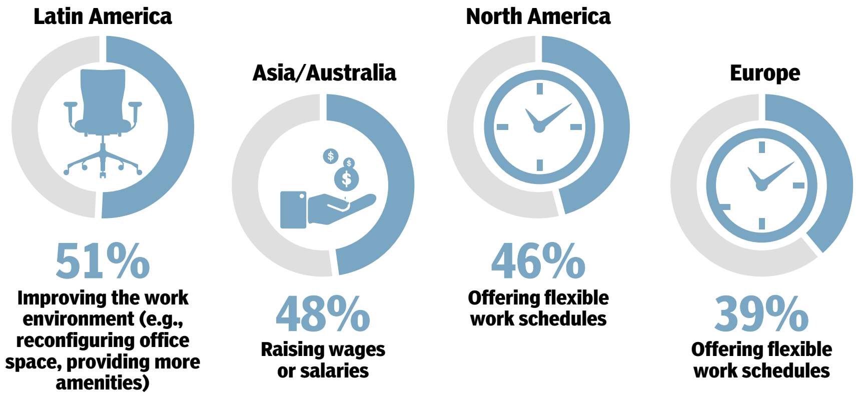
In Latin America, 73% of respondents anticipate economic expansion in 2016, led by large year-over-year optimism increases in Mexico and Argentina. Mexico is near the top of the global list of countries anticipating an increase in hiring (13% increase) followed by Argentina (10% increase) and Brazil (7% increase).

In Argentina (58%) and Mexico (55%) companies say their performance goals have been affected by difficulty in hiring skilled or specialized workers. Brazilian senior executives cite shortfalls in hiring for sales and marketing positions (54%) and for manual or unskilled labor (53%). To combat their hiring challenges, Argentine companies will move some positions from overseas to domestic locations (58%), and companies in Mexico (51%) and Brazil (49%) will make greater use of temporary or contract workers.

EUROPE

Executives in Europe have more moderate expectations for economic expansion, with 62% of respondents expressing optimism. The U.K. leads the way, remaining strong at 75%. On average, respondents in Europe expect to see an increase in hiring of 6%. Finance executives in the U.K. are most likely to plan to hire (9% increase), followed by Germany (6% increase). Russia and France exhibit much less ambitious plans for hiring, with each country anticipating a 3% increase.

Top Employee Attraction & Retention Strategies



Percentage of respondents

In the U.K (62%) and Germany (43%) companies say their performance goals have been affected by difficulty in hiring skilled or specialized workers. French finance executives cite shortfalls in hiring IT staff (35%), and Russian executives cite difficulty filling manual or unskilled labor positions (32%). To combat their hiring challenges, companies in France (42%), the U.K. (41%), Germany, and Russia (each 38%) will make greater use of temporary or contract workers.

ASIA/AUSTRALIA

In Asia/Australia a majority of respondents (59%) still anticipate economic expansion over the next year, although this represents a continuing annual decline in economic outlook for the region. India once again posts the highest optimism in the region (86%), reflecting aggressive spending and investment plans and a commitment to innovation and growth.

On average, respondents in Asia/Australia expect to see an increase in hiring of 8%. India is among those countries expecting to increase hiring the most (13% increase), followed by Australia (10%), Singapore and Japan (each 8%), China (6%), and Hong Kong (5%).

Finance executives in Hong Kong (66%) say their performance goals have been affected by difficulty in hiring skilled or specialized workers. In India (70%), China (68%), and Japan (53%), survey respondents cite difficulty in filling sales and marketing positions. In Singapore, companies say they have difficulty hiring management and skilled or specialized workers (each 58%). Finance executives in Australia cite difficulty hiring management (55%) and in finding IT staff (53%).

In order to address their hiring challenges, companies in Singapore (59%), Japan (55%), Hong Kong (53%), and Australia (47%) will make greater use of temporary or contract workers. Companies in China will also make greater use of temporary or contract workers (53%), but also will move some positions from overseas to domestic locations (56%), as will companies in India (63%). CFO

Ballpark Numbers

The Major League Baseball season is under way, and season ticket holders can pay very different amounts to spend a day at one of the league's 30 ballparks. For two people, counting season tickets, parking, hot dogs, and beer, the cheapest stadium costs about $110 less a game than the most expensive one does. Test your knowledge of ballpark prices by taking our quiz.

1. The average cost for two people to go to a major league ball game (cheapest season tickets, parking, two hot dogs, two beers) is:

   A. $59.70
   B. $64.03
   C. $70. 17
   D. $77.92

2. Averaging $48 per game, this team's lowest-price season tickets are the most expensive such tickets in the league:

   A. New York Yankees
   B. New York Mets
   C. Boston Red Sox
   D. Chicago Cubs

3. Parking is free at this stadium:

   A. O.co Coliseum (Oakland Athletics)
   B. Petco Park (San Diego Padres)
   C. Tropicana Field (Tampa Bay Rays)
   D. Miller Park (Milwaukee Brewers)

4. The Great American Ball Park (Cincinnati Reds) sells the cheapest hot dog, at:

   A. $1
   B. $1.50
   C. $2.25
   D. $3

5. The Cleveland Indians and Arizona Diamondbacks sell the cheapest beer, at:

   A. $3
   B. $3.25
   C. $4
   D. $4.75

6. The least expensive ballpark, at $47.60 a game, is:

   A. Angel Stadium of Anaheim (Los Angeles Angels)
   B. Chase Field (Arizona Diamondbacks)
   C. Coors Field (Colorado Rockies)
   D. Target Field (Minnesota Twins)

7. The most expensive ballpark, at $157 a game, is:

   A. Wrigley Field (Chicago Cubs)
   B. Yankee Stadium (New York Yankees)
   C. Fenway Park (Boston Red Sox)
   D. Rogers Centre (Toronto Blue Jays)

Source: GoBankingRates.com. Ticket prices were calculated by averaging the cost per game for the five cheapest season ticket prices advertised on the baseball team's official MLB site.

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

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