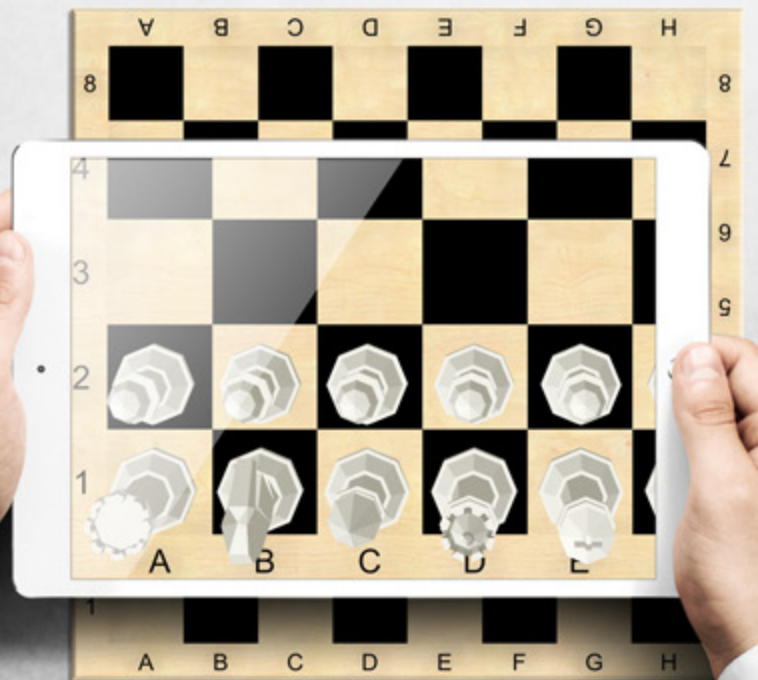




# Three-Dimensional Chess

**An outlook survey of Chief Tax Officers in the age of tax reform and disruptive technologies**



# Playing to win



For tax practitioners, the title **CTO** traditionally designates a company's chief tax officer. But as they told us in our survey, today it clearly stands for so much more.

It stands for *chief talent officer*, as they work to give their teams the technical and "soft" skills they'll need to meet the evolving demands of tax regulation and their own businesses.

It stands for *chief technology officer*, as they navigate how to stay ahead of the technologies that can help their departments make meaningful contributions to their companies' success.

And perhaps most important of all, it stands for *chief transformation officer*, as they respond to not only a shifting regulatory landscape but also to their own organizations' changing expectations of them and the value their function needs to provide.

Almost every CTO — 96 percent — said their role has changed since they became CTO. They also have a clear perspective on where their challenges lie in the next 12 months: understanding and complying with U.S. and global tax reform and harnessing the benefits of technology, data and analytics, and robotics for their function and their organization.

It's easy to say that those challenges can also be opportunities. It's often much harder to find the clear path to success when you are in the middle of a fast-moving game. But CTOs are confident in their companies' success and they understand and embrace their role in driving that success. And because they are confident, so are we.

**Jeffrey C. LeSage**  
Americas Vice Chairman, Tax  
KPMG LLP

## Contents

<b>Key findings</b>	<b>2</b>
<b>Economy and growth</b>	<b>4</b>
<b>2017 tax reform legislation</b>	<b>6</b>
<b>Technology and the tax function</b>	<b>8</b>
<b>Transformation of the tax function and the CTO</b>	<b>11</b>
<b>Conclusion</b>	<b>13</b>



# Key findings

**Forbes Insights conducted a study in partnership with KPMG LLP (KPMG) on the changing landscape of tax and its impact on business. The survey gathered opinions from chief tax officers about the evolution of their role and the challenges they face, the effects of the 2017 tax reform legislation and regulatory changes, and the level of investment in and the impact of technology on the tax function.**

We found that, for the most part, CTOs have a favorable outlook for their companies' growth and the growth of the global economy, and they expect the role of the tax function to grow over the next three years. The 2017 tax reform is dealt with at the highest levels, and a majority of companies are going to be making reform-related changes in less than 12 months. CTOs and the tax function are lagging in terms of using advanced technologies, and they need to focus on technology-driven transformation to keep pace with the rest of the organization.

75%+

**of CTOs are bullish on the global economy and company growth over the next 12 months and the next three years.**



85%

**of companies are addressing global tax reform at the board or audit committee level.**



64%

**of CTOs are planning to make changes to their organization to accommodate tax planning.**



On the positive side, many of the CTOs we interviewed for this report agreed that increased spending for technology is in order. While the survey found that a vast majority of companies plan to add to their tax department's headcount, many companies are still under pressure to keep costs down across the board. Adding talent will help, but many CTOs believe that they will have to rely on technology such as robotics, data and analytics, and artificial intelligence to keep up pace with ever-changing tax and regulatory requirements.

As one CTO put it, "Even though we have lower rates, the new tax law is much more complicated. Basically, Congress kept most of the old rules and layered new rules on top of them. Now it's like playing a game of three-dimensional chess."

45%

of CTOs believe their department is keeping ahead of technological innovation.



76%+

of CTOs say investment in data and analytics and in emerging technologies will see the biggest increase in the tax function over the next 12 months.



96%

of CTOs say their role has changed since taking over the CTO function.



# The big picture: Economy and growth

“

The bulk of our global revenues are earned in the U.S., and when we had a 38 percent tax rate, our tax bill was significantly higher than it is today at 21 percent.”

– Joseph Gagliano,  
Senior Vice President of Global  
Tax, American Express

## Bullish on the economy and the new administration

CTOs are very bullish about the global economy as well as their companies' growth, both for the next 12 months and for the next three years. At least three-quarters say they are confident or very confident about both. A majority of the CTOs are also confident that the current administration will have a positive impact on U.S. economic growth (69 percent), their industries' growth (57 percent), and their companies' growth (61 percent).

The U.S. economy is now tied for the second longest expansion cycle on record. For the first time since before the financial crisis, all developed economies are experiencing growth, which is an additional tailwind. Finally, the Federal Reserve has projected that it will continue raising rates at a gradual pace, meaning the low-interest-rate environment is expected to continue.

This is especially true for companies that derive most of their revenue in the United States. Joseph Gagliano, Senior Vice President of Global Tax for American Express, explains, “The bulk of our global revenues are earned in the U.S., and when we had a 38 percent tax rate, our tax bill was significantly higher than it is today at 21 percent. The rate reduction reduces our tax liability dramatically and that gives us the opportunity to deploy that capital in other ways to grow the business.”

The views of the CTOs correlate with the CEOs'. In a recent U.S. CEO Outlook, based on a survey of 400 U.S. CEOs, KPMG found that U.S. CEOs are very bullish on the U.S. economy, as well as on their industries and companies. Eighty-five percent of U.S. CEOs were very confident or confident about growth prospects for their country, 52 percent were confident about global growth, 83 percent about industry growth, and 98 percent about their companies' growth. Their outlook is based on the bullishness about the U.S. economy, as well as specific factors pertaining to their industries.



## Growth of revenue and headcount healthy

The outlook for top-line growth is moderate to good. A vast majority of organizations are on a growth trajectory, but less than half (46 percent) are expecting growth of 5 percent or more over the next three years. Most also expect the headcount of the tax function to grow, with a third anticipating growth of 10 percent or more over the next twelve months. However, many companies are trying to hold the line on costs across the board, tax department included.

Kinder Morgan, for example, actually expects a slight decrease in tax department headcount and plans to fill the gap through a number of different measures. According to Jordan Mintz, Vice President and Chief Tax Officer, "We will offset a modest reduction in

headcount due to retirements through increased efficiencies and per capita improvements from retention of top talent, strong training, and, potentially, technology."

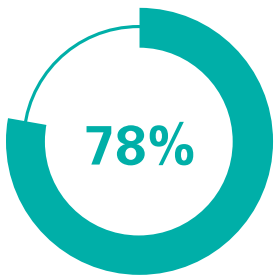
While not universally bullish, CTOs are nonetheless more bullish about revenue growth than CEOs. Just 9 percent of CTOs anticipate revenue growth over the next three years to be 2 percent or less, compared with long-term averages of 3.8 percent since 1990. Half of CEOs anticipate such low revenue growth.

CTOs are also more bullish about headcount, with 61 percent anticipating headcount growth of 5 percent or more over the next three years, compared

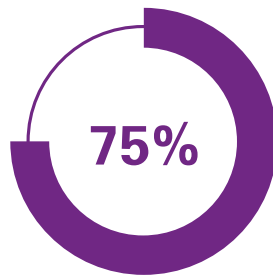
with a third of CEOs anticipating headcount growth of 6 percent or more over the next three years.

That difference may be because CEOs look at growth more in terms of new business models, where keeping up with disruptive competitors can spell success, while CTOs have an outlook based on financial data. "CTOs see and understand the opportunities that tax reform can offer to companies for possible increased earnings, transformation, and growth," says KPMG's Jeffrey C. LeSage, Americas Vice Chairman, Tax. "Sharing that optimism with the top of the house is something they are uniquely qualified to do."

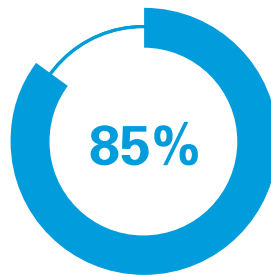
## CTOs have favorable outlook for global economy and company growth



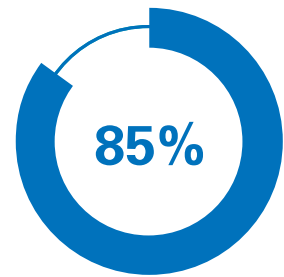
**Better than average growth in global economy over next 12 months**



**Continued growth in global economy over next three years**



**Company growth over next 12 months**



**Company growth over next three years**

# 2017 tax reform legislation

“

We are primarily U.S. based, and international changes should only have a modest impact on the company, given its branch structure and de minimis cross-border transactions.”

— Jordan Mintz,  
Vice President and Chief Tax  
Officer, Kinder Morgan

## Compliance top priority

Compliance with legislative and regulatory changes is a top strategic priority of the tax function over the next 12 months. The global tax reform landscape is being addressed at the highest levels—at the board or audit committee (85 percent). This is not surprising because while companies are benefitting from a major tax reduction in the United States, they also have to take a global view. In many cases, the U.S. corporate tax rate is now lower than in other countries, and organizations have to look at both operational and financial accounting issues to take maximum advantage of U.S. tax reform.

“Tax reform moved from legislation to reality at lightning speed, and at nearly \$10 trillion in law changes, it is easily the largest tax bill in history,” says Will Williams, National Managing Principal for Tax at KPMG. “It’s going to take years to fully develop and issue the needed guidance for it to be implemented, and different sectors and companies will be affected differently. When coupled with the ongoing international tax changes, the near to mid term is going to be a challenging time for tax departments.”

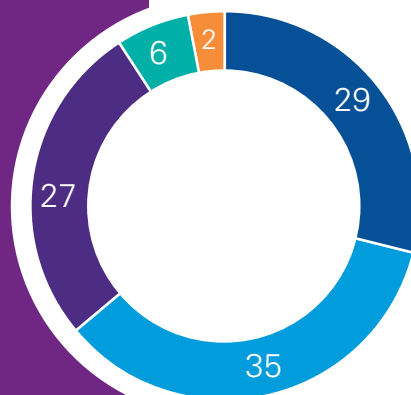
For companies whose revenue is primarily derived in the United States, compliance is still a priority, but it is less complicated than those with far-flung global operations. Kinder Morgan’s Mintz

says, “We are primarily U.S. based, and international changes should only have a modest impact on the company, given its branch structure and de minimis cross-border transactions.”

## Getting ready for the new tax landscape

A majority of organizations (64 percent) are planning to make changes to accommodate tax planning in less than a year, and 30 percent report that their boards have recommended additional resources for the tax function. Some say there are two schools of thought on tax reform, with some arguing that with lower taxes, the tax department should need fewer people.

Others point out that a reduction in the tax rate does not necessarily equate to a reduction in complexity. While American Express’s Gagliano welcomes the new lower rates, he says that does not mean less work for the tax department. “For all the talk about tax reform and tax simplification, we got one but not the other. Even though we have lower rates, the new tax law is much more complicated. Basically, Congress kept most of the old rules and layered new rules on top of them. Now it’s like playing a game of three-dimensional chess.”



## When organizations anticipate making changes to tax planning (in percentages)\*

- Less than 6 months
- 6 months but less than 12 months
- 12 months but less than 18 months
- 18 months or longer
- No changes planned

\*Does not add up to 100% due to rounding

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## Top impacts of the 2017 tax reform

Corporate tax reduction is expected to have the largest impact on organizations (39 percent), followed by potential state and local tax implications (37 percent) and minimum tax on low-taxed foreign earnings—global intangible low-taxed income (GILTI) (37 percent). GILTI, in particular, is drawing a lot of interest among tax chiefs. The measure targets U.S. corporations that own controlled foreign companies (CFCs) for U.S. tax purposes and operate a current income inclusion regime similar to subpart F. U.S. shareholders will have to include their share of the CFCs GILTI in their income.

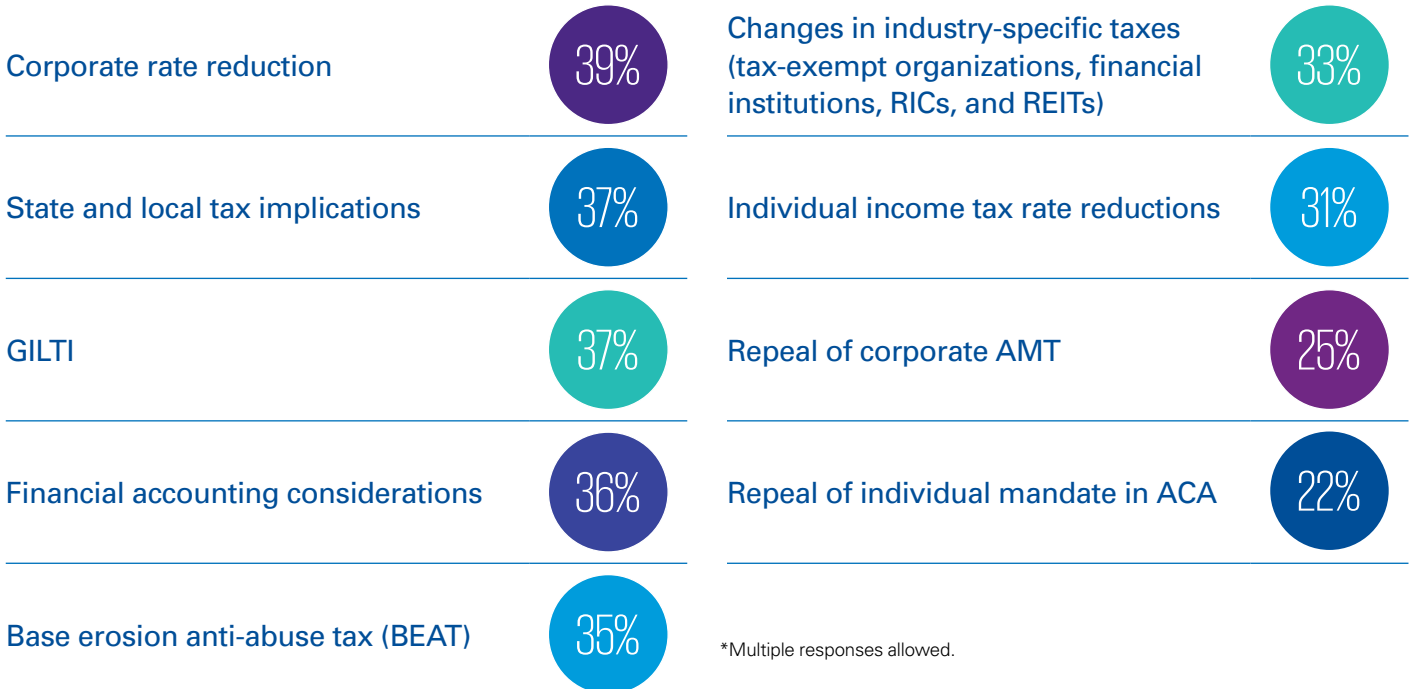
“The challenging part of GILTI and the other international tax changes in the 2017 tax reform law generally is that everything is interconnected,” says Ron Dabrowski, Principal and Technical Deputy to the Principal in Charge of KPMG’s Washington National Tax. “As a result, figuring out the incentives the array of tax rules provide and the potential pitfalls they create is a much more holistic exercise than under prior law.”

Regarding the potential state and local tax implications, KPMG’s Washington National Tax Partner, Ann Holley, says, “The momentous change to the federal tax code is clearly creating challenges for the states and local jurisdictions as they determine how they may need to respond

on a number of fronts. The net result is that the outlook for state corporate taxes will be highly uncertain for the next few years.”

Holley also notes that, “The recent Supreme Court decision in *South Dakota v. Wayfair* also creates additional compliance requirements for many companies, as well as uncertainty around what activities give rise to a filing requirement. And this uncertainty crosses many tax types. To top it all off, state taxes are a larger part of the overall tax rate. The bottom line is that state taxes will demand more attention than in the past in tax functions.”

## What aspects of the 2017 tax law will have the largest impact on your organization?



\*Multiple responses allowed.

# Technology and the tax function

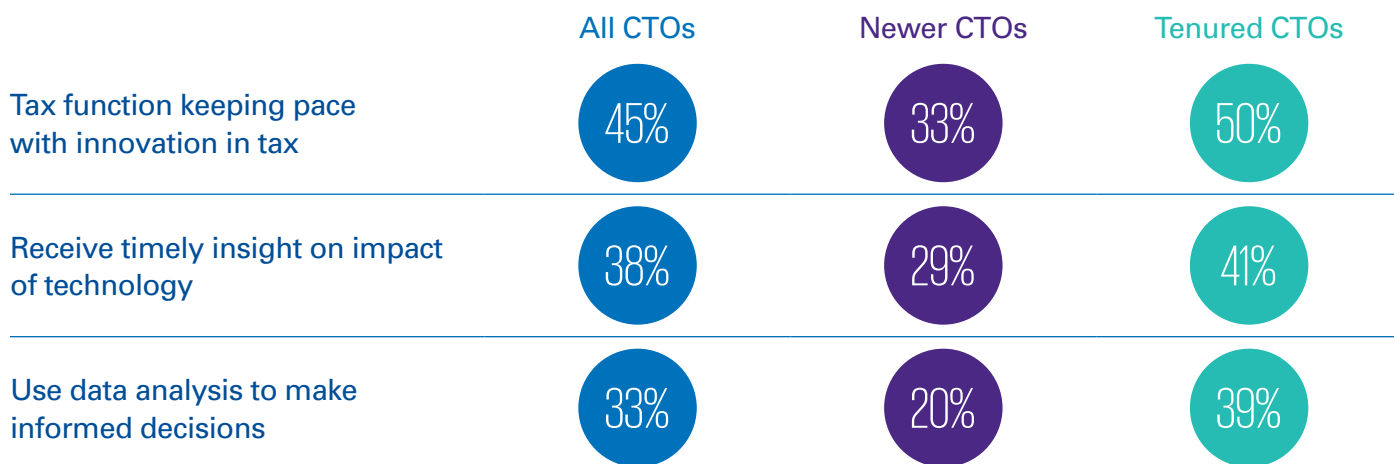
## Untapped potential

Less than half (45 percent) of CTOs believe that their tax function is keeping pace with technological innovation. Just 38 percent receive timely insights on the strategic impact of new technologies. And only 33 percent use data and analytics to make strategic decisions. As the chart below shows, tenured CTOs (five years or more) are doing better than newer CTOs, but there is still much room for improvement when it comes to keeping pace with technology.

There are CTOs who are employing some new technologies quite successfully. Chuck Lenns, Vice President of Tax at Con Edison, says he has introduced robotics to the tax function to free up his team from doing repetitive, mundane tasks and allowing them to focus on more strategic initiatives. “The size of our tax department will stay the same for the foreseeable future, but we are taking on more responsibility. Robotics helps us manage our workload and helps us to complete tasks that we used to do manually.”

“The misstep would be for CTOs to view tech as something somehow outside their core business, as just another skill,” says KPMG’s Williams. “The key is creating an environment where tech expertise is aligned with and engrained into the DNA of the folks that run the business. If tech isn’t approached holistically, from top to bottom across the tax department, the organization isn’t going to be operating at top capability—and a competitor’s tax department will be.”

## CTOs report tax functions are having a hard time keeping pace with technological innovation



“

The size of our tax department will stay the same for the foreseeable future, but we are taking on more responsibility. Robotics helps us manage our workload and helps us to complete tasks that we used to do manually.”

– Chuck Lenns,  
Vice President of Tax, Con Edison

## Technology seen as a top challenge

Meeting reporting and compliance requirements is seen as the top challenge faced by CTOs (32 percent), but almost equally important is identifying and implementing new technologies (31 percent). Complexity, legacy technologies, and integration are seen as the top challenges, along with implementing new technologies over the next 12 months, but they are not that far ahead of other challenges.

Kinder Morgan's Mintz agrees. "The combination of the level of comfort in identifying definite solutions to compliance bottlenecks as compared to potential cost is a big concern. At Kinder Morgan, we are focused on identifying value-added technology solutions while maintaining cost control and achieving promised performance."

"It can be difficult to commit to investing strategically in technology, and it may be tempting to wait for the next upgrade, but tech is simply too important to ignore," says Brad Brown, Chief Innovation Officer for Tax at KPMG.

"Many successful CTOs say they see their investment as part of a cycle of continuous improvement based on a multiyear roadmap that yields value as the initiative progresses."

### Top challenges facing CTOs

Meeting reporting and compliance requirements with existing resources	<b>32%</b>
Identifying and implementing new technologies	<b>31%</b>
Changing regulatory environment	<b>29%</b>
Communicating tax risk/opportunities to C-suite and board	<b>27%</b>
Increasing reporting requirements	<b>27%</b>
Meeting global compliance requirements	<b>25%</b>
Managing global tax controversy	<b>25%</b>
Attracting and retaining talent	<b>24%</b>
Developing the tax professional of the future	<b>23%</b>
Delivering incremental value in financial statements	<b>21%</b>
Lacking connection with enterprise strategy	<b>15%</b>

\*Multiple responses allowed.

Brown provides one example of this roadmap approach: "Tax accounting software has evolved dramatically over the past five years. Had tax departments not made investments when the improvements were first available, their tax accounting process and related controls would have been at

significant risk. Through each upgrade and change, CTOs have had to continue to selectively invest to gain important improvements, but they couldn't have waited and continued to use the manual Excel spreadsheets of the past and kept up with increasing demands on their departments."

## Data and analytics top investment

Investment in data and analytics and in emerging technologies will see the biggest increase in the tax function over the next 12 months (79 percent and 76 percent, respectively). CTOs see the increase in accuracy and freeing up staff to handle more value-added tasks as the top benefits of technologies (42 percent and 39 percent, respectively).

“The speed of innovation that we are seeing means that CTOs are being pushed into new directions as they manage their technology investments,” says KPMG Principal David Jarczyk, “They have to not only figure out how to incorporate today’s D&A solutions into their departments now

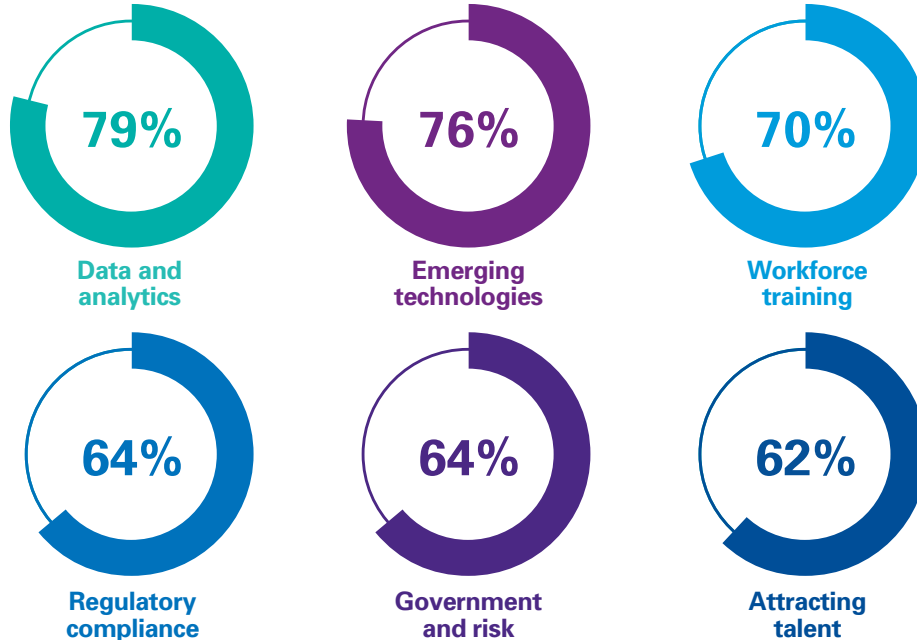
– they also need to determine what impact and benefits blockchain and enhanced AI could bring in the very near future. We all know the value that lies hidden in tax data. With the support of their organizations, CTOs could become disruptive innovators who help rewrite the role and contributions that tax departments make to the bottom line.”

The reporting obligations and the opportunities presented by the new U.S. tax law are driving the need for very detailed data and offering opportunities to derive value from the corresponding analytics.

The data can be used not only to comply with the requirements of the law, but also to manage risk and drive value for the organization. U.S. and global tax reform now can really be an accelerant to a company’s understanding of the global supply chain and the relative profitability occurring within different product lines and geographies, leading to value optimization. According to Con Edison’s Lenns, investing in new technologies is a delicate balance from a human capital perspective. “The first time we introduced robotics, the reaction was: ‘Am I going to lose my job?’ After the second and third time of introducing new technologies, I think people were convinced that their jobs are safe. They know that bots do the mundane tasks, but we still need people to think about the data and what it means to our organization.”

The issue of the impact of technology on employment is also on the minds of CEOs. Overall, they are almost evenly divided about whether technology will lead to a net loss or increase in jobs. They agree with the CTOs that human analysis and intuition are going to continue to be key while employees will need to acquire more advanced technology skills.

## Leading investments in the tax function



# Transformation of the tax function and the CTO

“

People need to have more technology skills. Period. That cuts across all areas of tax. Technology is going to touch everything you're doing and has the potential to make you able to do more analytical work.”

— Joseph Gagliano,  
Senior Vice President  
of Global Tax,  
American Express

## The tax function lagging at transformation

A majority (68 percent) of CTOs believe that in three years the tax function will largely be the same tax function as today, and just 32 percent think it will be significantly changed.

This may come as a surprise considering that the main impetus behind this transformation is going to be new technologies, which are changing rapidly. One way to speed up transformation may be to devote more employees to technology roles. Currently, nine of 10 CTOs have 15 percent or less of their staff dedicated to technology. And 30 percent report that they have only 5 percent or less — or even zero — employees in a technology role.

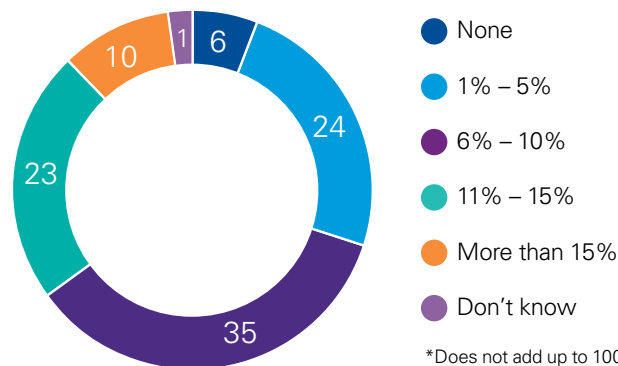
American Express's Gagliano says, "People need to have more technology skills. Period. That cuts across all areas of tax. Technology is going to touch everything you're doing and has the potential to make you able to do more analytical work. People will be more empowered and will be able to contribute more."

"In today's best-run tax departments, CTOs are talking about RPA, cognitive

technologies and aligning with future state processes. That awareness and skill set simply didn't exist 10 years ago in most tax departments," says Greg Engel, KPMG's Regional Managing Tax Partner for markets and services. "CTOs tell us that in five years from now, tech will be a core competency for leaders of tax departments and their staffs that will potentially completely transform how they do their jobs."

"Beyond core technology and data analytics skills, the opportunity now exists for CTOs to take a holistic look at their organizations' talent, processes, and perhaps most importantly, data flow across the function," says David Leiter, national leader of Tax Reimagined at KPMG. "We're seeing that the cost reductions expected from finance transformations are only truly possible if multiple teams can extract, transform, and load clean data for multiple processes from the same pull. Once that data-sharing hurdle is cleared and the information and outputs become more streamlined, CTOs may focus on how they can unlock the most value for their organizations."

## Nine of 10 CTOs say less than 15 percent of tax staff are in a technology role (in percentages)\*



\*Does not add up to 100% due to rounding



# Transformation of the tax function (continued)

A redesign of workflow may be one way CTOs ultimately decide to unlock value, including moving some or all of their compliance function outside their department, says KPMG's Leiter. "Rather than funding the cost of building, maintaining, and upgrading their individual compliance infrastructures, CTOs are increasingly moving part or all of those operations to service providers who can more easily scale their technology investments and who work in a consultative way with the company's now leaner, more value-focused tax department. Sometimes, these moves are short term, such as following a merger or acquisition, headquarters relocation, or during a company's overall technology rescale; other times, the decision is permanent, through a lift-out of some of the company's staff or a complete transfer of the tax data management. Either way, the end result is a tax department that can meet its compliance obligations effectively and efficiently while adding value in new ways to the larger organization."

## The role of the CTO has been transforming

Ninety-six percent of CTOs say their roles have changed since they took on the positions. These changes have been positive overall. Collaboration with other financial executives as well as across the whole organization has been increasing significantly, as has been the recognition of the value of the CTO function.

T-Mobile's Chris Miller, Vice President of Tax, agrees that the role of the CTO has evolved over the last 10 years. "As our business has gotten more complex, our department has had much more interaction with other groups across the organization than in the past. From a core tax responsibility standpoint, our role has largely stayed the same, but we do work more closely with other functions."

## Ambiguity about the CTO position

There is still some ambiguity about the best positioning and structuring of the CTO role as 30 percent of respondents say that their role has been combined with another role, while in the case of 22 percent of respondents, it has become a separate role.

Miller says his department falls into the latter category. "When I started at T-Mobile, I reported to the controller and the CAO, but as of a couple of years ago, I've been reporting to the CFO. That helps with visibility. I have always given readouts to the audit committee and the board, but being higher up on the organization chart and having more experience helps you do your job better."

## How the CTO's role has changed

More collaboration with other financial executives

45%

More collaboration across the organization

39%

Greater recognition of the value of the tax function

39%

Greater interaction with C-suite and board

38%

It has been combined with another role

30%

It has been carved out as a separate role

22%

\*Multiple responses allowed.



As our business has gotten more complex, our department has had much more interaction with other groups across the organization than in the past.



– Chris Miller, Vice President of Tax, T-Mobile



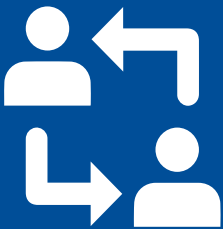
# Conclusion

**Chief tax officers are facing two major forces impacting their function: disruptive technologies and the tax reform. While both spell additional complexity at first, when approached smartly, tax executives can use both to increase their profiles and contribute to the business operations of their companies. Such an approach includes:**



## Technology

Considered a largely untapped potential, technology will play a big role in increasing the speed, efficiency, and the value of the tax role. With less than half of CTOs believing that the tax function is keeping up with innovation, more needs to be done.



## Collaboration

Already the biggest part of how the CTO's roles have been changing, collaboration across the enterprise needs to continue to increase. In a connected enterprise, it's imperative for the tax function to collaborate not only with financial executives but also with line of business leaders.



## Driving value for the organization

The tax reform increased reporting obligations, driving the need for collecting and analyzing more detailed data. The tax function can use this data to manage risk and drive value for the organization. The success of adding value is predicated on the tax function's embrace of technology and collaboration.

## Methodology

This report is based on a survey of 300 chief tax officers and senior-most persons in the tax function, conducted by Forbes Insights, which was completed in the second quarter of 2018. All CTOs came from companies with revenue of \$500 million or more, including 50 percent who came from companies with revenue of \$1 billion or more and 34 percent from companies with revenue of \$10 billion or more. They represented all major industries, with the biggest groups being from banking and finance (18 percent); retail (12 percent); and electronics, software and business services (12 percent). 54 percent of their companies were public, and 46 percent private. A majority (70 percent) have been chief tax officers at their organization for five years or more.

For more information about this report and how KPMG can help your business, please contact:

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