



Thomson Reuters Institute

ChatGPT and Generative AI within Accounting Firms and Corporate Tax Departments

Tax professionals recognize ChatGPT's potential,
but are mindful of the risks

Executive summary

In the short six months since OpenAI began allowing the public to experiment with its artificial intelligence (AI) chat-bot, ChatGPT, thoughtful people in seemingly every profession — doctors, lawyers, teachers, college professors, journalists, artists, and yes, accountants — have suddenly become interested in, and concerned about, how ChatGPT might impact their profession *and* especially, their jobs.

ChatGPT marks the emergence of generative AI, an advanced form of deep machine-learning that can provide specific, detailed answers to almost any question and generate seemingly original content in the form of text, code, images, and even video. The potential business uses for generative AI are just beginning to become apparent, as are the possible risks and repercussions.

Accountants, auditors, and other tax professionals are among the vocations that many pundits and experts predict will be affected, disrupted, and possibly transformed by this disconcertingly competent new technology. After all, ChatGPT has been *trained* in a way, on the United States tax code, and it can answer complex tax questions in a matter of seconds. Its answers aren't always necessarily correct — or worse, they may be just accurate enough to mislead people — but expectations are that ChatGPT's performance will improve as it *learns* more about whatever subject it is prompted to discuss.

Then what?

Tax and audit professionals have been here before, of course — with electronic calculators, keypunch machines, Excel spreadsheets, TurboTax, tax automation, and other ingenuities that were supposed to hasten dramatic change within the profession. And now it is time once again to assess the promise and peril of a new technology that almost everyone has heard of, some are already using, and few truly understand.

To find out what tax and audit professionals are thinking about ChatGPT and generative AI in general, and whether and how it might impact the tax & accounting profession and how tax & accounting professionals might use it, the Thomson Reuters Institute has conducted surveys and follow-up interviews with leaders at accounting firms and corporate tax departments in the U.S., the United Kingdom, and Canada. This report summarizes their attitudes toward ChatGPT and generative AI, what use-cases survey respondents envision for the technology as it matures, as well as their views on its potential risks.

Key takeaways

In the business world, ChatGPT's remarkable speed, accuracy, and versatility have instantly opened people's eyes to the power of generative AI. At this early stage in the technology's development, however, many people have concerns about data privacy, security, accuracy of information, loss of autonomy, and many other unknowns. Despite these concerns, the promise of ChatGPT and generative AI is too tantalizing to dismiss.

Our survey of tax leaders yielded several key findings that shed light on how the tax & accounting profession — both among accounting firms and corporate tax departments — are viewing this new technology. These findings include:

Open-minded but cautious — At many tax & accounting firms, awareness of ChatGPT and generative AI is generally very high, and is even higher among corporate tax departments. There is definite interest in how generative AI might be used to improve operational speed and efficiency, but opinions about its utility in the tax profession are decidedly split at the moment.

Almost three-quarters of the respondents to our survey agreed that ChatGPT and generative AI *can* be applied to tax, accounting, and audit work — and about half think it *should* be. The other half includes those who are skeptical about using ChatGPT to answer tax-related questions, as well as those who haven't yet formed a solid opinion on the matter. Many respondents said they feel the technology isn't developed enough to trust yet, and may be more appropriate for non-tax, administrative work.

The large-language technology behind ChatGPT and generative AI is developing rapidly, however, and many tax professionals can envision using the technology — or tools that have incorporated it — to assist them in their work. Saving time on research is the most commonly mentioned use-case, but respondents identified many other possible applications as well.

ChatGPT vs. the "grey" areas of tax — Tax professionals' main objection to using the current version of ChatGPT is that while it may be useful for basic tax research, it tends to struggle with more complex tax questions. This may change as the technology matures, of course, but many respondents pointed out that tax rules are not black and white. Most tax work takes place in the grey areas, in which intelligent interpretation is required. Indeed, it takes a high level of expertise and judgement to parse the nuances of tax law for any given client in any given situation, respondents said, and these are human qualities that generative AI can only *imitate*, not replicate.

"[Generative] AI is not actual intelligence — it's textual crowd-sourcing," said one respondent.

Another said: "The technology will never reach the equivalent of a talented professional in terms of planning and technical expertise." said another.

Yet another referenced the maxim that the answer to every tax question begins with, “*It depends...*” and ChatGPT is ill-equipped to deal with that level of ambiguity.

Context is everything in tax, after all, and ChatGPT’s biggest limitation (in the public version, at least) is that fails to account for the broader range of circumstances that a tax & accounting professional would consider, particularly regarding a client or company’s business principles, ethics, goals, strategy, and people. So quite often the answers ChatGPT gives to tax questions may sound plausible but are only partially correct, incomplete, misleading, or simply wrong.*

[Note: *In fairness to ChatGPT, the homepage of the chatbot’s public free version warns users up front that its answers may be incorrect, and that it has limited knowledge of anything past 2021 (such as in our case, changes in the tax code). OpenAI also recently released a paid version — ChatGPT Plus, based on ChatGPT-4 architecture — that is more advanced, accepts images, has a much larger vocabulary, and provides more accurate answers. ChatGPT-4 isn’t perfect either, but it is much more capable than the free public version, and its mere existence is a testament to how fast this technology continues to develop.*]

ChatGPT at work? Maybe... eventually — Only a small number of tax, accounting, and audit professionals in either accounting firms or corporations are currently using or plan to use ChatGPT, but more are considering it.

If they did use it, the most likely application would be for tax research. Even then, however, every answer would have to be fact-checked, many respondents noted, which is one reason ChatGPT is unlikely to replace humans anytime soon. Given that whatever answers ChatGPT provides, a person with tax knowledge still needs to assess its accuracy, the foreseeable future is more likely to be about tax professionals learning how to use ChatGPT intelligently to help them do their jobs better, rather than one in which ChatGPT and generative AI simply takes over.

Still, two-thirds of our survey respondents said they had concerns about the risks of using ChatGPT and generative AI for client or corporate work. The most common concerns were accuracy, privacy, confidentiality, and security. Some even worried about liability blowback to a firm if ChatGPT got something wrong and nobody caught it. A few say they have received warnings against using ChatGPT at work as well, and a small number of firms and departments have even banned its use outright in the workplace.

Despite these caveats, four in ten tax, accounting and audit professionals still think it is possible they will see some sort of rollout of generative AI within the next six months. Accounting firms are more open to the idea of integrating ChatGPT and generative AI into their operations, but in either case the number considering such a move is still relatively small.

As one respondent summed it up: “There may be scope to use this sort of technology around very basic services such as PAYE codes and calculations, etc. But the tax needs of an individual are very specific, and to give a high level of professional service I think requires a personal touch.”

Methodology

This report is derived from the results of a five-minute survey that the Thomson Reuters Institute sent to tax, accounting & audit firms and corporate tax departments in the U.S., U.K., and Canada, as well as members of the Thomson Reuters Institute Influencer Coalition panel. The survey was conducted between May 3-15, 2023, and 771 tax professionals responded.

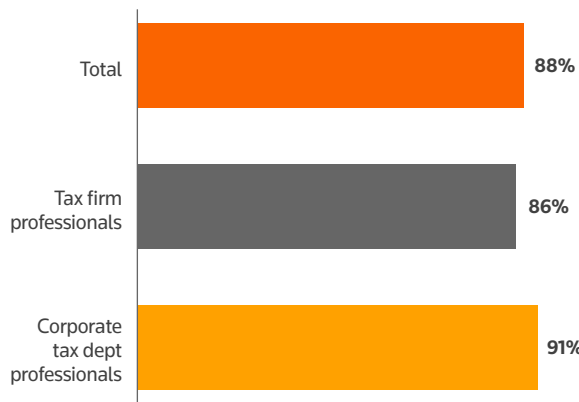
In terms of organizational type, 57% of the respondents were from tax, accounting & audit firms, and 43% were from corporate tax, accounting & audit departments. A large majority (85%) of the respondents were from firms with between 2 and 49 people, and, with the exception of a few solo practitioners, the rest were from larger firms, most of which (78%) are located in the U.S.

Almost half (46%) of those responding to the survey were manager/directors or shareholder/owners, while 15% were managing partners or partners. The rest were either vice presidents, professional staff, or solo practitioners.

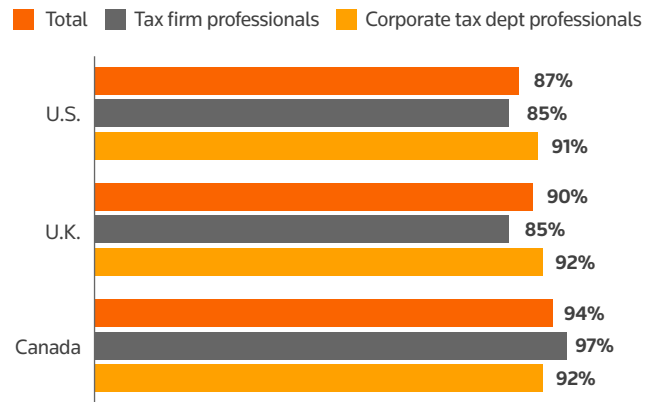
Awareness and applications

Figure 1: **Corporate tax dept professionals are significantly more aware of ChatGPT and generative AI than tax firm professionals.**

Total ChatGPT and generative AI industry awareness



ChatGPT and generative AI awareness by country



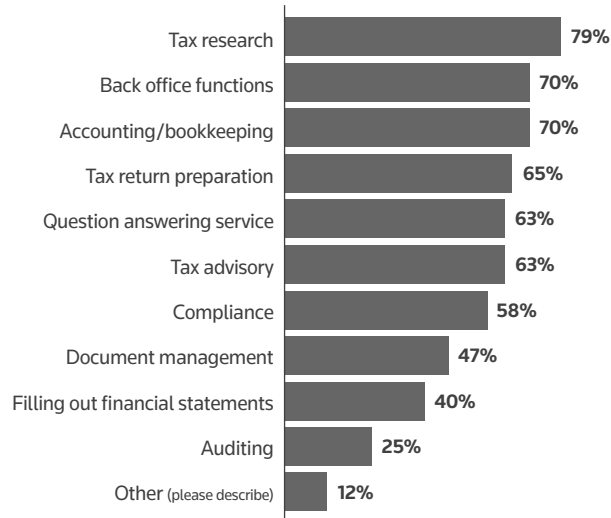
Source: Thomson Reuters 2023

In our survey, most respondents from tax, accounting & audit firms and corporate tax departments were familiar with ChatGPT, although awareness was a bit higher in corporations (91%) than at accounting firms (86%) overall.

By country, however, awareness of ChatGPT and generative AI was appreciably higher in Canada compared to either the U.S. or the UK. Indeed, 97% of accounting firm respondents in Canada were acquainted with the technology, whereas only 85% of those from firms in the U.S. and U.K. had heard of it. Corporate awareness in Canada, the U.S., and the U.K., was roughly the same, hovering around 91% to 92%.

Figure 2: **Tax research is the top area of possible ChatGPT and generative AI use for tax firms and corp tax departments.**

Use cases of interest (tax firm professionals)



Use cases of interest (corporate tax dept professionals)



Source: Thomson Reuters 2023

When asked how they might be interested in using ChatGPT, both accounting firms and corporate tax departments cited tax research as the most likely use case. After that, opinions on potential uses within corporations and firms diverged somewhat.

In tax & accounting firms, respondents envisioned using ChatGPT and generative AI mainly for back-office functions, accounting and bookkeeping, tax-return preparation, and as a question-answering service.

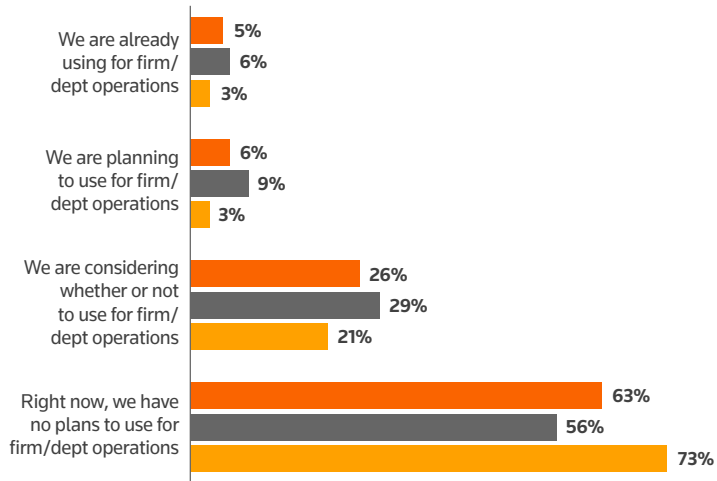
In a corporate setting, however, compliance was the second-most-cited use-case after tax research, followed by a question-answering service, tax advisory, tax-return preparation, and document management.

Figure 3: 1 in 10 are already using or planning to integrate ChatGPT and generative AI into firms and departments operations. This is significantly higher among tax, accounting or audit firm professionals.

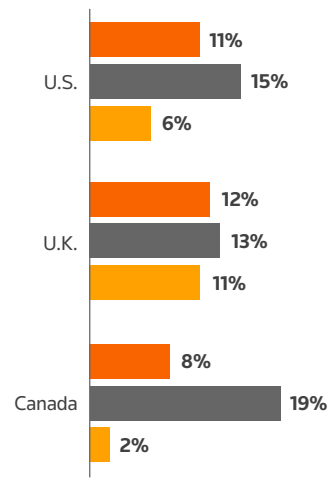
Plans to integrate ChatGPT and generative AI into firm's operations

■ Total ■ Tax firm professionals ■ Corporate tax dept professionals

Industry plans to integrate



Already using/planning to use by country

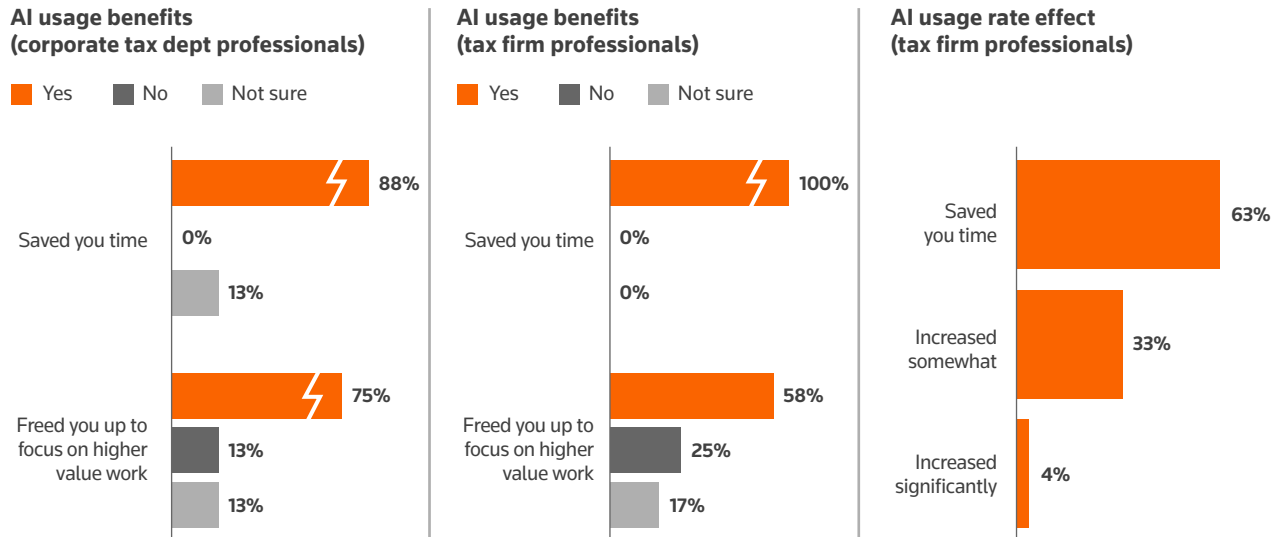


Source: Thomson Reuters 2023

Despite all the possible applications mentioned by our respondents, only about 15% of tax & accounting firms and corporate tax departments surveyed said they are currently using or planning to integrate ChatGPT and generative AI into their firm operations. Additionally, 21% of corporate tax departments are considering incorporating it, and 29% of tax, accounting & audit firms say the matter is similarly under discussion.

Among the three countries surveyed, Canadian firms have a larger appetite for ChatGPT and generative AI with 19% of tax & accounting firms say they are already using or planning to use ChatGPT.

Still, reluctance was evident. Almost three-quarters (73%) of corporate tax departments said they have no plans to use the technology in their operations, and 56% of tax & accounting firms also are currently saying the same.

Figure 4: **Time-saving is a benefit of AI usage for all.**

Source: Thomson Reuters 2023

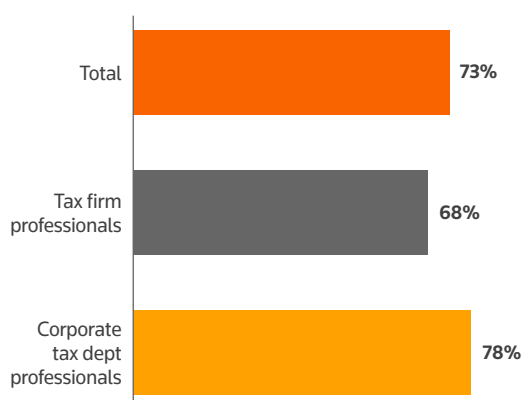
Of the few firms and companies that already have tried ChatGPT, there was almost unanimous agreement across the board about the technology's main benefit: time saving. Of those that have tried ChatGPT at work, 75% of corporate users said ChatGPT freed them up to focus on higher-value work, and 58% of firm users said the time saved resulted in an ability to focus on work with more value.

Skepticism and concerns

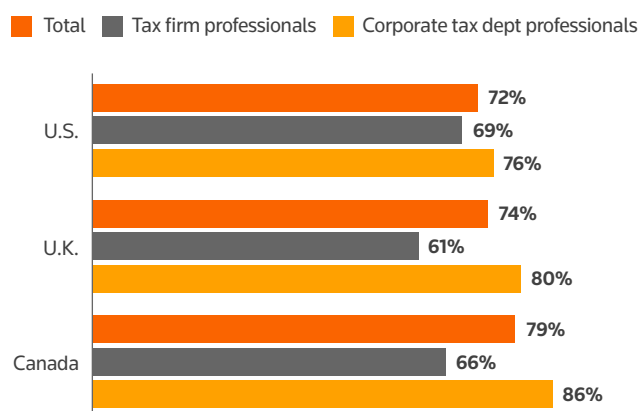
Figure 5: **Three-fourths of all tax professionals agree ChatGPT and generative AI can be applied to their work.**

Can ChatGPT and generative AI be applied to tax, accounting or audit work?

Industry overall "Yes"



"Yes" by country

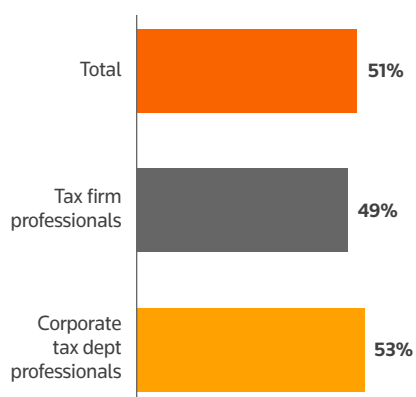


Source: Thomson Reuters 2023

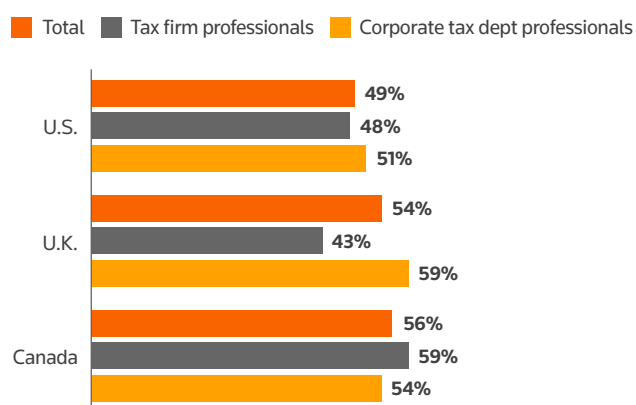
Figure 6: **About half of respondents believe that ChatGPT and generative AI should be applied to tax, accounting or audit work.**

Should ChatGPT and generative AI be applied to tax, accounting or audit work?

Industry overall "Yes"



"Yes" by country



Source: Thomson Reuters 2023

Although a majority of survey respondents (73% overall) could imagine plenty of ways in which ChatGPT and generative AI *can* be used, a smaller, but still majority percentage (51%) thought it *should* be used in a professional tax setting. Canadians (56%) were more open to the idea of using ChatGPT than respondents from the U.K. (54%) and the U.S. (49%), but opinions on the matter were essentially split down the middle.

Indeed, tax professionals in our survey expressed a great deal of ambivalence about ChatGPT and generative AI in general. Many think the technology has promising applications, but some also think it is too new to be trusted and isn't secure enough. Most troubling of all, those who have used ChatGPT report that the version available free to the public doesn't answer tax questions very well.

In fact, those who have tested ChatGPT on tax questions reported that while the answers may sound knowledgeable to the layman, they are often either simplistic, incomplete, misleading, or wrong. Some had heard about ChatGPT having *hallucinations* — instances where the bot appears to be making things up — and felt that such a possibility was cause for serious concern. Still others noted that at the end of most tax queries, ChatGPT tells the user to consult a professional — which is good advice, of course — but that underscored how the information ChatGPT provides is unreliable and must inevitably be fact-checked. Further, no sources are given for the information ChatGPT generates, which makes its answers that much more difficult to verify.

Many who took the survey provided written responses to provide deeper insight to their concerns:

“I currently believe that while ChatGPT could potentially become a valuable tax research tool, there are still nuances to the statutes that apply in practice that would be difficult for AI to capture.”

“My area is too specialized, and the rules are too complicated to trust ChatGPT or AI to provide advisory services. I do believe ChatGPT/AI could be used for simple, repetitive, compliance-based tasks, but only after rigorous testing.”

And the harshest criticism of all:

“In most tax questions I have tested it with, it produces a load of rubbish.”

We also interviewed several tax professionals who work in accounting firms and corporate tax departments and received a range of opinions on ChatGPT and generative AI:

“We’ve messed around with ChatGPT a little bit as a group, but no, I personally will not use it until I have more information and a better understanding of how it works. It won’t become part of my work routine anytime soon.” — Melissa Inman, senior tax manager, Elevance Health

“ChatGPT is wonderful in my opinion, because it brings up a lot of things you maybe haven’t thought about. We’ve already used it for some tax research, and we used it for some procedures. For example, we asked it what a good checklist for onboarding a client was, and it came up with some really good thoughts.” — Rusty Hale, owner, HaleCPA

“It’s kind of scary to think about how a computer could be trained and then you are no longer needed. Also, if the computer performs at such a high level, it might add to people’s stress if they feel like they have to perform even better as an employee.” — Sagnik Bakshi, tax & audit specialist, Unilever

“What will ChatGPT do to our jobs? I’ve thought about it, and I think there’s a little bit of risk, but the risk is not big. I think it will help our jobs rather than replace them, because you still need to be a tax professional to understand whether the advice [that ChatGPT] is providing is good or not.” — Desmond Kwan, director of taxation, KIK Consumer Products

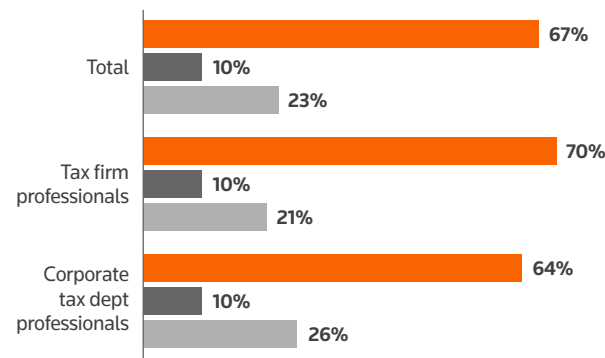
Data, security & privacy

Figure 7: **7 in 10 professionals report their departments or firms have risk concerns surrounding the use of ChatGPT and generative AI.**

Risk concerns surrounding the use of ChatGPT or generative AI

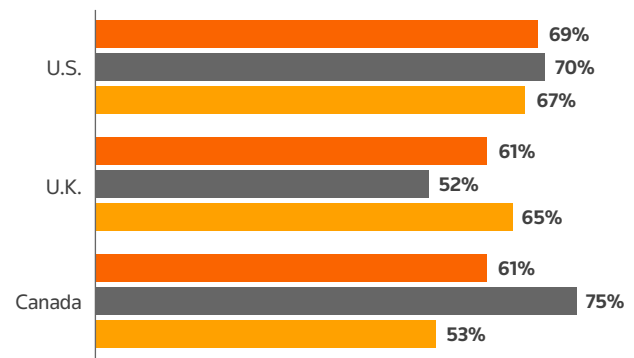
Industry overall

Yes No Don't know



“Yes” by country

Total Tax firm professionals Corporate tax dept professionals



Source: Thomson Reuters 2023

Other areas of concern mentioned by respondents included privacy, data security, confidentiality, and loss of control or autonomy. In fact, close to 70% of tax professionals reported that their firms or departments had risk concerns surrounding the use of ChatGPT and generative AI.

Interestingly, even though Canadians in general appear more open to incorporating ChatGPT and generative AI into their operations, as many as 75% of Canadian tax & accounting firms said they have risk concerns about the technology — higher than firms in the U.S. and the

U.K. — yet only 53% of Canadian corporate tax departments expressed concern, which was significantly lower than companies in the U.S. (67%) or the U.K. (65%).

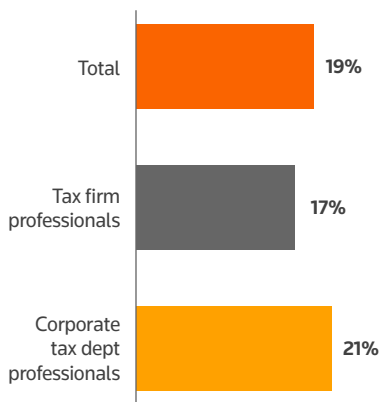
Data security and privacy were obvious points of contention, given that tax professionals deal with extremely sensitive personal information that can't (or shouldn't) be loaded into the public version of ChatGPT. As one respondent noted: "Any data or information communicated with ChatGPT or any generative AI models is stored and typically used to improve future responses. That is a huge security risk, especially in an open source model."

These data and security concerns would presumably be tempered somewhat by a gated version of the tool that had adequate security controls, but few if any participants in our survey had any experience with such a system.

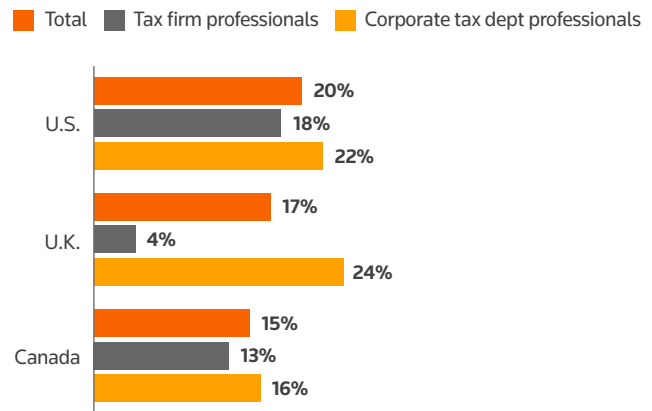
Figure 8: **2 in 10 professionals report being warned against use at work.**

Warnings against the unauthorized use of ChatGPT or generative AI

Industry overall "Yes"



"Yes" by country



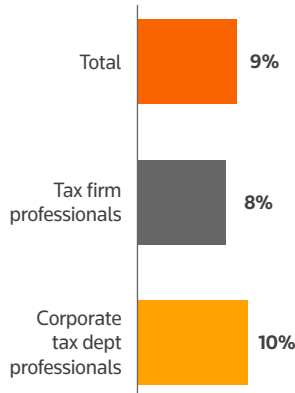
Source: Thomson Reuters 2023

In fact, respondents in roughly one-in-five corporate tax departments (21%) and 17% of tax & accounting firms reported receiving warnings against unauthorized use of ChatGPT and generative AI at work, and one-in-ten (9% overall) reported that unauthorized use of the tool had been banned in their firm or department.

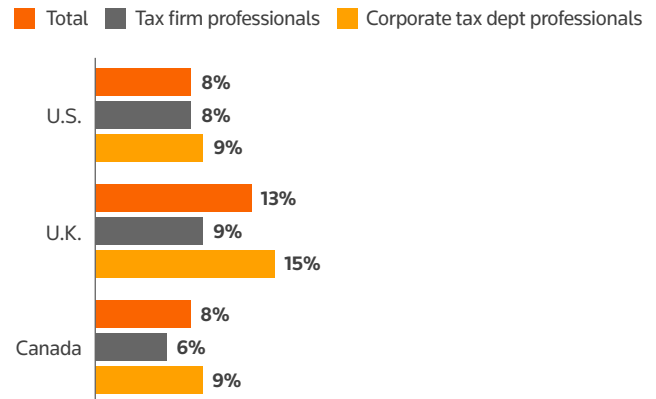
Figure 9: **Only 1 in 10 of tax, accounting or audit professionals report bans from unauthorized use of ChatGPT or generative AI at work.**

Bans against the unauthorized use of ChatGPT or generative AI

Industry overall "Yes"



"Yes" by country



Source: Thomson Reuters 2023

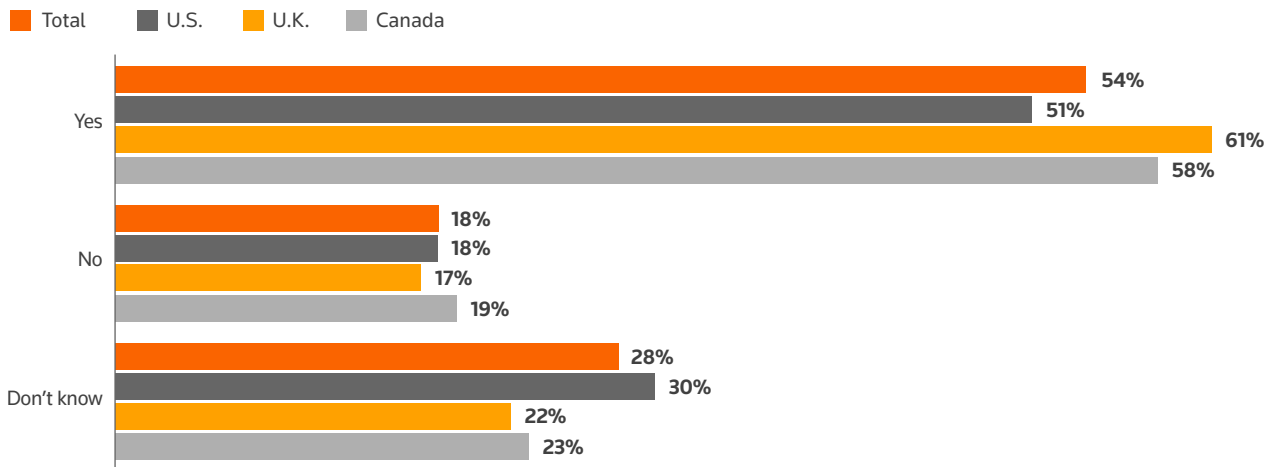
The human element in tax

Finally, tax professionals in both firms and corporations had reservations about losing the *human element* in tax if ChatGPT and generative AI were relied upon too heavily.

"Professional judgment is an important part of what we do," noted one respondent, echoing the fears of others that the widespread use of ChatGPT and generative AI might diminish the value of professional experience and eliminate the human touch in tax.

Figure 10: **Over half of corporate professionals believe that ChatGPT should be applied to professional work at vendor tax and accounting firms.**

Should vendor tax firms use ChatGPT or generative AI?



Source: Thomson Reuters 2023

It's also interesting to note that many of these same concerns extend to corporate tax departments that outsource services to external tax & accounting firms. While more than half (54%) of tax departments felt that ChatGPT and generative AI *should* be applied to outside professional tax work (provided that billings rates drop accordingly), the rest either did not approve or didn't know if it was a good idea.

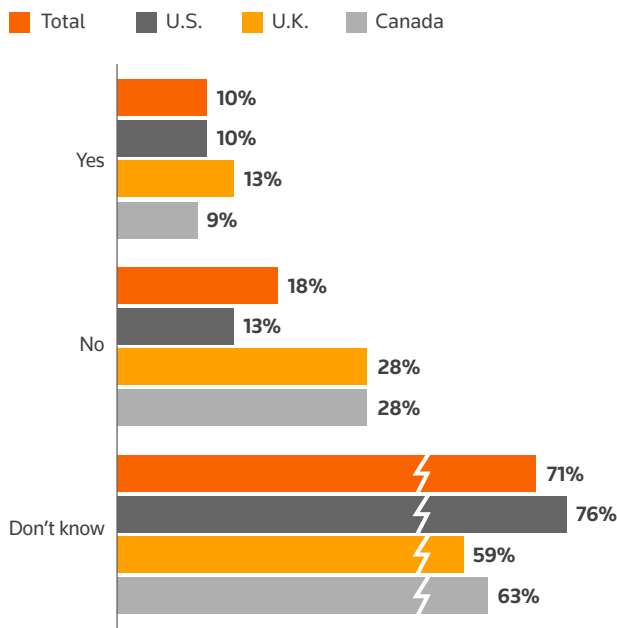
Those who disapproved were fairly vocal in their opposition, however.

"We are paying for accounting/tax services for qualified professional accountants," wrote one corporate tax respondent, adding that "if they are going to use ChatGPT and generative AI, there is no reason for us to engage them in the first place, as we could just use ChatGPT ourselves."

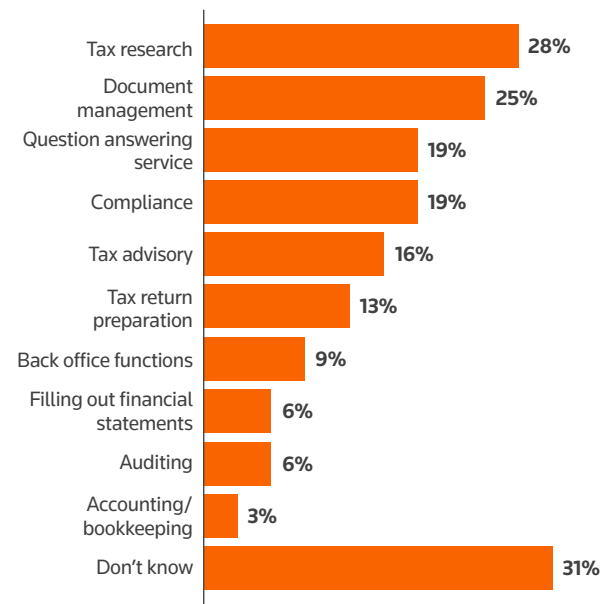
And a tax & accounting firm respondent wrote: *"As tax or accounting advisors, I don't want AI to replace our human professionals. I am not supportive of automating the advisory function and eliminating our relationships or the application of human professional judgment."*

Figure 11: **Majority of corporate professionals are not aware of vendor tax and accounting firms ChatGPT usage. Those who are aware believe that the main use case of ChatGPT and generative AI at vendor firms is tax research.**

Vendor tax firm professionals ChatGPT usage



Vendor tax firm professionals ChatGPT and generative AI use cases



Source: Thomson Reuters 2023

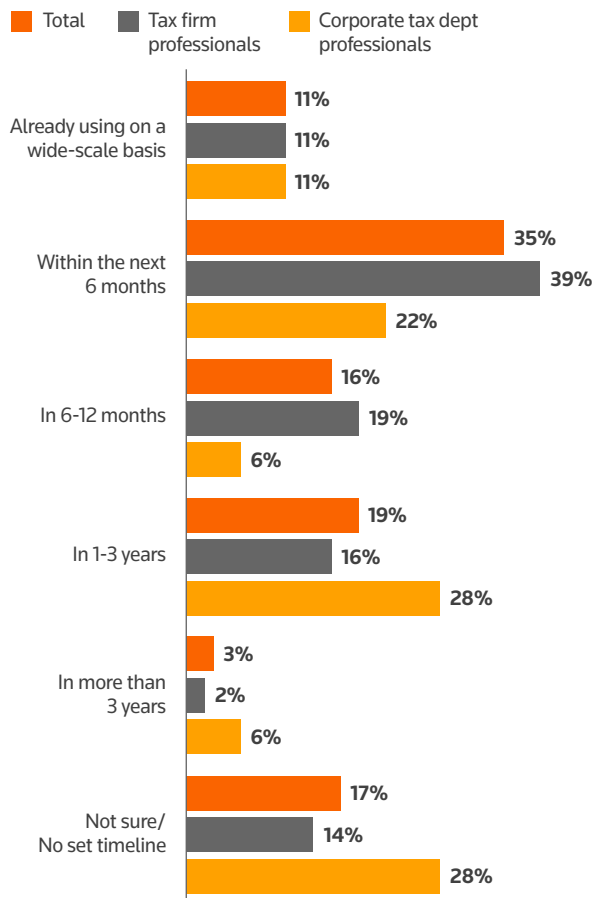
At the moment, however, the majority of corporate tax professionals (71%) don't know whether their outside tax & accounting firms are using ChatGPT. And of those that are aware of ChatGPT use at their vendor firms, the presumption is that it is being used primarily for tax research, although document management, question-answering, and compliance were also mentioned as possibilities.

The hazy future of generative AI in tax

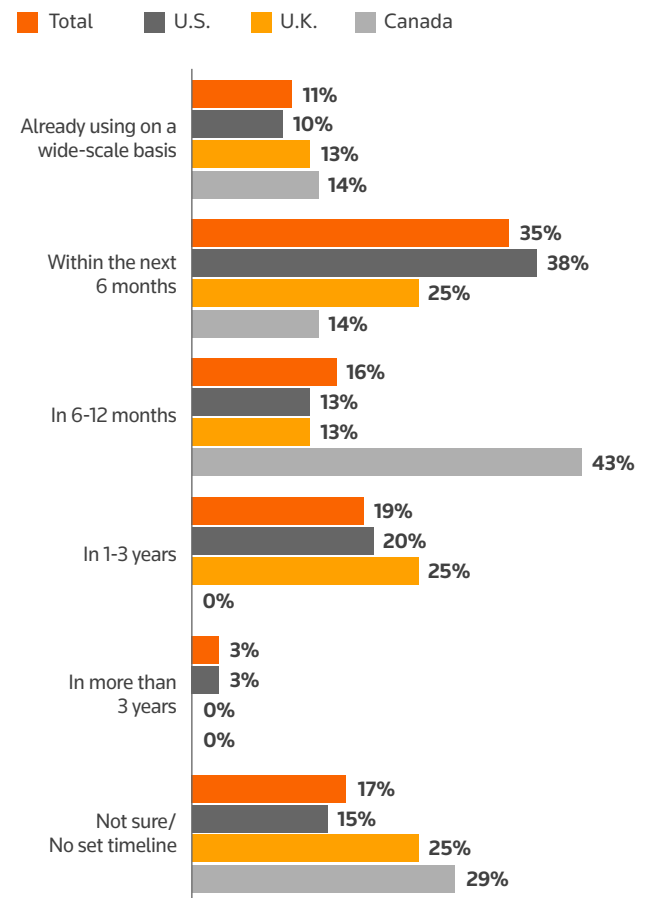
Despite all the skepticism and uncertainty that our survey uncovered, there was also a creeping sense of inevitability that ChatGPT and generative AI will ultimately be added to the professional toolkit of both tax & accounting firms and corporate tax departments. It's just a matter of time.

Figure 12: **4 in 10 professionals see the possibility of AI usage roll out within 6 months.**

Time frame to roll out AI usage by organization type



Time frame to roll out AI usage by country



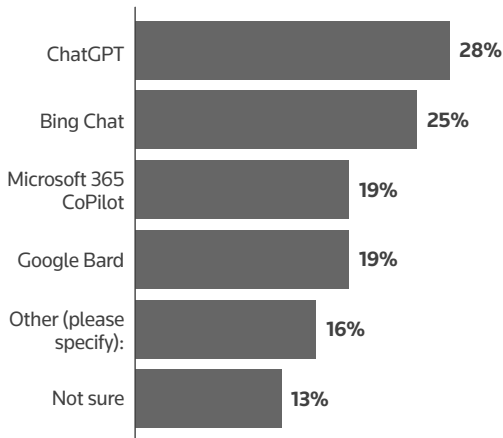
Source: Thomson Reuters 2023

Indeed, more than one-in-ten of respondents overall reported that they are already using ChatGPT or some form of generative AI on a wide-scale basis. And more than half of the rest (51%) felt it was possible their company or firm would roll out ChatGPT and generative AI sometime within the next six months to a year. The U.S. led the pack of countries in this area,

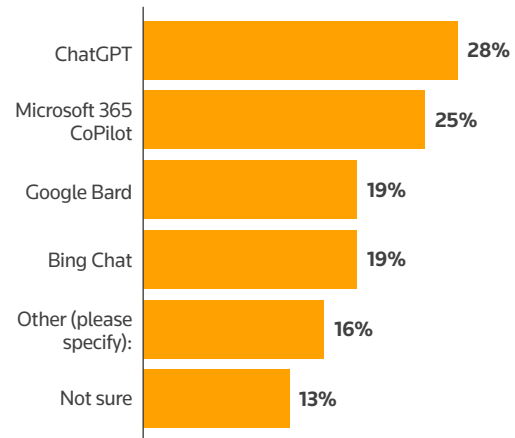
with more than one-third (36%) saying they expected to see AI rollouts in the next six months, while a good portion in Canada (43%) thought it would take closer to a year. Tax research would be the logical starting point for these rollouts, respondents said, followed by other applications as familiarity and trust grows with continued use.

Figure 13: **ChatGPT is the top AI tool that both tax firms and departments are using or planning to use.**

AI tools used/planned to use (tax firm professionals)



AI tools used/planned to use (corp. tax dept professionals)



Source: Thomson Reuters 2023

Of those firms or departments that are already using or planning to use generative AI, ChatGPT is the tool of choice for three-quarters (77%) of them. Bing Chat, Microsoft 365 Co-pilot, and Google Bard were also mentioned, but barely one-in-five respondents overall said they were using anything but ChatGPT.

Expanding awareness and usage

Still, it's not hard to see how the existence of ChatGPT and generative AI is leading to greater awareness of how such a tool might be applied to various areas of tax and gradually incorporated into accounting firm and tax department operations.

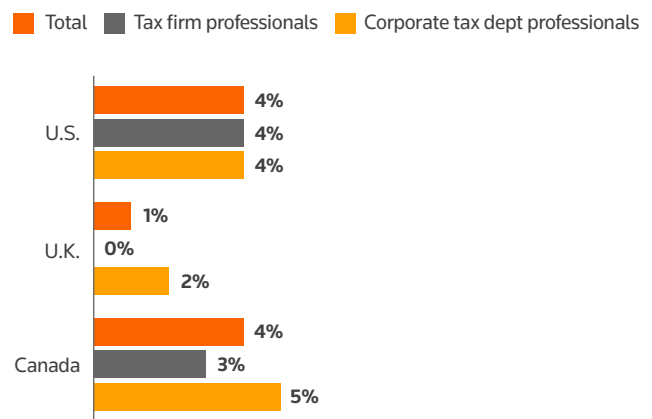
Figure 14: **Only a small number of firms and departments have already provided ChatGPT and generative AI training. Provided training in most cases was an overview; a few covered risks.**

ChatGPT or generative AI training

Industry overall "Yes"



"Yes" by country



Source: Thomson Reuters 2023

For example, a small number (4%) of respondents overall have already provided some form of ChatGPT and generative AI training for their people, but that number will surely grow over the coming months. In most cases the training provided was a basic overview of the technology and a discussion of some of the risks — but that's just a starting point, and a sensible one at that.

More importantly, several survey respondents expressed their eagerness to learn more about ChatGPT and generative AI and how it might be applied to their jobs. Responses ranged from a general desire for "training that would illustrate optimal usage for our needs" to "Anything! I think most of don't really understand it."

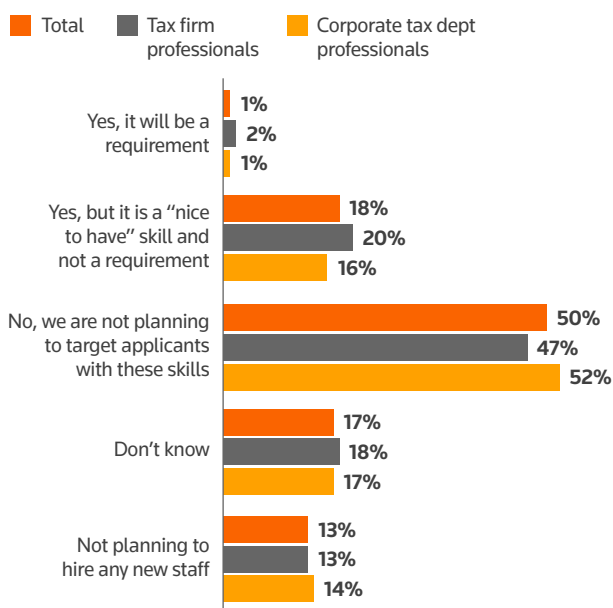
A general lack of training is understandable given that ChatGPT was only made available in November 2022, right before tax season kicked in, and the overall usage of the tool is still very low. But as more tax professionals become familiar with ChatGPT and what it can (and can't) do, and more tax & accounting firms and corporate tax departments experiment with it, the demand for formal training is likely to grow as well.

Hints of the future

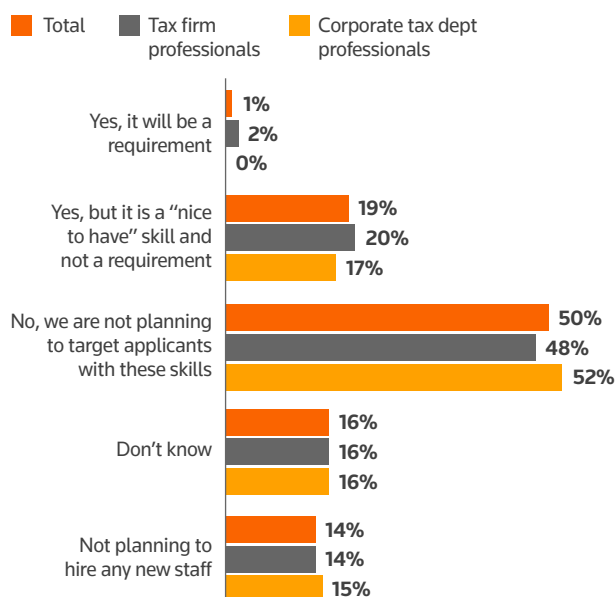
Figure 15: **A very small number of tax, accounting or audit firms and departments see ChatGPT and generative AI skills as a job requirement for new hires.**

ChatGPT or generative AI skills in new hires

Industry overall



By country (US)



Source: Thomson Reuters 2023

Another sign that generative AI is gaining a toehold on the future of tax is the fact that some accounting firms and tax departments are already talking about including ChatGPT and generative AI skills as a job requirement for new hires — or if not a hard requirement, at least a *nice to have* skill.

The number of overall respondents mentioning these skills as a possible *requirement* for hiring is admittedly quite small (1% to 2%), but that portion grows to 20% when respondents are asking if they think effective use of ChatGPT and generative AI is a skill worth having. This is more impressive when you consider that most accounting firms and tax departments have yet to fully jump on the ChatGPT bandwagon and thus have no immediate use for someone with such skills. As yet, there is also little or no formal training for anyone to acquire ChatGPT skills, meaning that anyone who has them is probably self-taught.

Whether or not tax professionals have ChatGPT skills now doesn't really matter, however, because this is about the future. And what seems clear from our research is that even though ChatGPT and generative AI still has a way to go before they can convince many tax professionals of their utility, there is also a tacet understanding that generative AI technology is still in its infancy, that its potential is undeniable, and that it is going to be an important factor in the tax, accounting & audit profession, one way or another.

Conclusion

Although many tax professionals recognize and welcome the arrival of ChatGPT and generative AI, many are also skeptical of the technology at its current stage of development and do not believe it is dependable enough to be answering anything but the most basic tax-related questions.

In general, the tax & accounting profession is evenly split on whether ChatGPT should be used at all in a professional tax environment, be it within a tax, accounting & audit firm or a corporate tax department. Consequently, most firms and departments are being extremely cautious about embracing the technology too soon, before it has matured and can be rigorously tested on more complex tax matters. Data privacy and security are enormous risk concerns as well; not surprisingly, because tax professionals deal with extremely sensitive personal information that cannot — and should not — be publicly shared.

Tax professionals are also understandably wary of yet another technology that promises so much while subtly threatening to dramatically change the way in which they work. The hope is that ChatGPT and other forms of generative AI will be yet another useful technology tool with the power to make tax & accounting work more fulfilling and productive; yet, the fear is that it will one day make tax & accounting work obsolete.

That said, many leaders from tax, accounting & audit firms and corporate tax departments can envision many ways in which ChatGPT-enabled tools might save them time and money. And though not many accounting firms or tax departments are planning to integrate ChatGPT and generative AI into their operations just yet, many are considering it.

And if the technology continues to evolve and improve, its usefulness for tax professionals will likely improve as well.

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