Transformation – Karen Peetz and Stuart Riley

Karen Peetz:

Good afternoon, everyone. I'm Karen Peetz, Citi CAO. A little less than two years ago, much to the dismay of my husband and my five grandchildren, Citi persuaded me to come out of retirement to lead our firm's transformation efforts. With a healthy dose of humility, I can probably point to the reasons Citi asked me to be part of this effort. Over the course of my 40-plus-year career, I've had the opportunity to help more than a few institutions remediate their regulatory issues and transform their organizations. I helped do that at JP Morgan and as president of BNY Mellon. I also served on the board of a G-SIB peer bank before joining Citi in mid 2020. I've gained valuable experience over the course of my career helping organizations facing challenges much like the one Citi is contending with right now. And I'm putting those learnings to good use here, but I'd like to also tell you why I chose Citi.

Despite what I just told you about my background, it's not because I'm a glutton for punishment. I decided to come out of retirement to help this firm for two reasons. First, because I was convinced this leadership team was thinking about this effort in the right way, and was willing to do the hard work required to truly transform. They aren't defensive about where Citi has fallen short, nor are they looking for a quick fix. I can tell you this team is thoroughly humbled by the reprimands that we received, but the focus now is on how we move forward from here to strengthen Citi's risk and control environment and to change our operations in ways that will make the firm more effective, efficient, and competitive. Second, I decided to take this role because I truly believe I can help and be effective here. I've experienced standing up efforts like this, and I know the rigor, the discipline, and the perseverance it takes to get something like this done.

I know what new skills are needed, and I know how important it is to get the firm's veterans, those who have been here many years, involved and invested in this effort. I've learned more than a few hard lessons along the way, but I hope I can help Citi avoid those. Of course, there will be issues and obstacles here too, but I know that this is a marathon, not a sprint. I'm leading a team that will stay focused and deliver what needs to get done. As I've already said to the team many times, one foot in front of the other, day in and day out. So that's why I joined Citi, and the team and I have been hard at work ever since. As Jane mentioned earlier, much of the work I do is covered by the confidentiality rules of our regulators, but what we have told you about is the significant number of people we've hired to help with this multi-year effort. And I thought it would be useful to give you some color about what those teams are doing, a peek under the hood, if you will.

A significant portion of these hires are working on our data efforts. Ironically, it's initially quite a manual process to build an agile data architecture. Existing data needs to be combed through and

tagged consistently. Redundant data needs to be eliminated. Data sources need to be validated and prioritized. We also need to update our systems and make sure the teams are appropriately trained on them. Separately, we also have teams working on our end-to-end processes. In some cases, there are multiple ways around the firm to complete similar tasks. Take cross-border payments, for example, which you've heard a lot about. How we do it in our personal banking business might vary from how it's done on the institutional side. We're looking at what processes exist today and determining opportunities to do things in a more consistent way. Then, we're looking at each of these steps.

Can they be simplified? Do we have enough controls for each step, or too many? Are they the right controls? Building the right end-to-end processes is an essential step to move forward from manual to automated ways of doing things. Everyone intuitively understands the benefit of automation, but automating bad or overly-complex processes won't achieve our desired outcomes. And once we have more and better end-to-end systems, we'll have better data that we can use more effectively. These efforts, like virtually all of our transformation work, are closely linked and connected. We're also strengthening Citi's project management capabilities to create centrally-led discipline and structure around how we will get things done. Across our transformation efforts, we need to instill best practices, measure ourselves against consistent benchmarks, and streamline decision-making.

Parts of my team are helping the firm do just this. This is particularly important, because much of the work we are doing for the transformation has interdependencies and linkages across the firm. Finance and risk, for example, compliance and our first-line business leaders. Jane has often said that Citi has a love of customization. That's actually not a great thing in banking, so that's not the way we'll do things going forward. We're putting the right structure and support around developing these new, standardized, consistent ways of working. And of course, we have been focused on meeting the expectations of our regulators to address the consent orders that we entered into with the FRB and the OCC in October of 2020. Our plans to address the consent orders were submitted to both regulators in the third quarter of last year, and we've been refining and executing on those plans with urgency. And we've brought in the resources we need to help us. We've added a lot of great talent that's done this in other places before, and they're helping us learn from those experiences while leveraging the great talent we have in house.

I'll be frank: It's hard to do justice to the intensity of the work that's underway here and the passion our team is bringing to it. I am often in awe. This is a multi-year effort to enhance the way we manage risk end-to-end as we further enhance our culture of accountability to drive this change. I hope I was able to give you some texture of what's underway, the discipline we're embracing, and how we are investing in our people and technology to drive these transformation efforts to success. Now I'm going to turn it over to my colleague, Stuart, who can tell you more about how we're using technology to support our transformation as well as our business growth. Stuart.

Stuart Riley:

Thank you, Karen, and good afternoon, everyone. I'm Stuart Riley, and I'm the head of ICG Technology. Over the last decade here at Citi, I've led many of the technology-enabled growth initiatives that have focused on digitizing our businesses. For example, leading the development of our number one rated research and analytics platform, Citi Velocity. Across Citi Velocity and CitiDirect, last year alone, we had over 500,000 unique institutional users, we believe unmatched by any other firm. I'm a software engineer, and my whole career has been spent thinking about how you codify businesses and deliver

them at scale. The traits that have made those projects successful are things like speed, connectivity, and reliability, and these are the characteristics that we want to apply across all parts of our firm.

Today, you've heard from my colleagues about the growth initiatives across our businesses. It's worth me mentioning that two-thirds of our revenue growth in the next few years is driven by businesses that are fundamentally dependent on the technology implementations. You've just heard from Karen about our transformation goals, including using technology to improve risk controls and efficiency. And earlier today, Jane talked about our aspirations to build a simpler bank, whilst leveraging our unique global network. Those are both enabled by technology. Couple that with what our clients want from us. They want an optimized client experience, something as good, instantaneous, and easy to use as they have in their consumer lives. They want connectivity, to be able to integrate their companies into ours so that they can directly leverage our capabilities.

Let me give you a quick example. When we build a complex pricing engine, they want to be able to use that on their platform. They don't want to build that themselves. They don't want to acquire those data sets, so we offer those services through connectivity. They want speed and reliability from us, because it often dictates the speed and reliability of the services that they can offer onto their customers. And lastly, they want security. This is fundamentally about trust. Our customers trust us with their data, because they know we will secure it for them. We have invested heavily in technology talent and infrastructure to support the growth and the transformation. Last year, we spent $10 billion on technology across Citi, and that includes the technology spend you heard about earlier from Shahmir and Anand that are key drivers for their businesses.

This year, we've budgeted approximately $11 billion, which is a 30% increase compared to 2020. That spend is split roughly equal between change the bank and run the bank activities. We've also increased our technology headcount by over 30% during that time, and that's been in a very competitive talent market. We now have over 30,000 software engineers. That's more than many of the leading tech giants. And we're investing in that talent, including improving the developer experience and creating opportunities for broader industry recognition for our staff. Let me talk to you about some of the benefits from our technology investment. On the business-led investment side, we think across broad themes, such as digital customer and client distribution, from Shahmir's expansion of CitiDirect to Jim's mobile distribution channels. We're improving our payment and lending capabilities by modernizing our platforms, whilst also creating new products for our customers.

On transformation, we're building the next-generation, cloud-based finance ledger, and improving our risk technology to evaluate risk exposures much, much more rapidly and accurately. We're also using technology to automate our controls and our processes to reduce manual intervention and increase straight-through processing, thereby reducing the risk and improving our operating efficiency. We're also investing in our enterprise technology, the foundations, cloud, data, cybersecurity, and I'll talk to you more about those in detail later.

Now, let me explain how we think about utilizing technology spend in a most effective way. We believe that we have three components that, when combined, they're going to give us competitive edge. The first, leveraging new technologies, the second, improving delivery capability by changing the way we work, and third, rapidly deploying our solutions across the Citi network. Clearly, every bank in the world and all of my peers as technology heads are going to tell you they're leveraging new technology and finding new ways of working. I hear you, but Citi is different. We operate locally. We already have relationships with local regulators. We have relationships with central banks, and we have the talent, the infrastructure, and the technology on the ground. This means we can quickly deploy solutions to support our customer needs wherever they need us. Shahmir gave us an example of a

company that uses us in 140 countries around the world. Jane also spoke about our uniquely global network. Technology powers that network, and it would be very difficult for others to replicate.

Now, I'm going to give you a little more information on each of these components over the next few slides. I want to start by showing you how our increased technology spend has improved our foundations, and therefore makes us confident that we can support the growth and the transformation. Cloud. A couple of years ago, we deliberately slowed our pace of cloud migration, because we wanted to ensure that we met the highest standards of security. We are now running in public cloud. For example, we've used AWS for millions of hours of risk calculations in our markets business. That infrastructure is now available for us to leverage for any initiative where we need elastic scale. It's worth noting here that 25% of all of our applications in the ICG have already been migrated to a containerized architecture. That means they're ready to be deployed on any cloud environment we choose.

Data. In our view, the technology for artificial intelligence and machine learning is largely commoditized. The methodologies are readily available in open source or commercial products, so the differentiator is how unique is your data, and whether it is organized in a way that makes it discoverable and easily accessible. To do this, we are creating a high-quality authoritative data source for both reference data and transaction data. These will feed into our risk and finance infrastructure so that we can guarantee the quality of regulatory and financial reporting, but they're also key enablers for bringing new products and services to market and improving the customer experience.

For example, using machine learning. We are better at detecting potential card fraud, and that reduces the alerts to our operational staff. You may think, "So what," but it means 100 million fewer alerts reaching those operational teams every year. Think about the time and the effort we save. APIs. APIs are the modern-day relationship between companies. Of course, human relationships remain critically important, but APIs are the physical connection between our firms. They enable customers to directly access our IP, our data, and our compute services, and they can do that at the pace and frequency they require. We handled over 8 billion requests from our customers in 2021. That was across 300 different APIs. They span from things like consumer APIs to transfer money and pay bills, to market data APIs to access over 25 million pieces of data that is exclusive to Citi.

Everything as code. As we operate in a highly regulated industry, and given our ambitions for risk and compliance, we want to enforce the highest levels of controls and ethics. The only way to do that and avoid the reliance on the good intentions of humans and to operate at the speed and scale that our customers demand is to ensure that the rules are well-defined and embedded in our systems. For example, we codified the rules around trade booking so that thousands of trades can be checked and booked every second, and we are now able to apply that technology to other business lines where similar throughput is required. Finally, cyber. We now leverage artificial intelligence on over 740,000 Citi devices that better protect Citi and our customers from emerging threats, including ransomware and malware. Our new secure authentication platform means that we have better login experience for nearly 20 million of our customers, while simultaneously improving security on both sides.

As well as investing in technology, we're also changing the way we work. Firstly, we're going to deliver our business capabilities through services, creating the efficient and simpler bank that Jane talked about earlier. Let me explain why. Historically, we covered our client's needs vertically through products. This has increased complexity, because it caused duplication and delivered inconsistent experiences. We know that within the bank, we provide many services, and going forward, we're going to better align to those. Those services will be easier to govern. We will be able to reduce that duplication, and the owners will be empowered to be much more agile. And those services will be built with the everything as code concept. They'll be fully automated, highly controlled, and fully evidencable.

Secondly, we're actively scouting, piloting, and partnering with startups, especially in areas that help accelerate our execution strategy. At times, we also invest in these companies, which is the case in the examples on this slide. And we've developed a strong reputation with entrepreneurs and the venture capital community, because Citi is able to deliver our breadth and scale to the startup partner. And in return, we collaborate on the product development suited to Citi's needs. We have over a hundred such investments today. According to CB Insights, last year, we were the most active bank in FinTech venture capital investing. And finally, in the same way that Karen laid out how we are approaching transformation differently, we are also rebuilding certain client-facing services where we need scale, speed, and agility, and we're doing this through a new operating model.

This is based on three main principles. First, dedicated cross-functional teams so we bring everyone together, business, risk, finance, legal, technology, operations, which means better and faster decision-making. Secondly, that team will be aligned to clear and achievable common business goals, ensuring that we can track and achieve the appropriate returns on those investments. And third, every service that a team builds will be designed to be reusable, which will further increase our agility and speed of innovation. And as these services will be built on the new technologies, it will enable us to ultimately scale our businesses at lower marginal cost. And our customers will benefit from faster time to market, and importantly, higher-quality products, and of course, improving the customer experience. Now, I talked earlier about how our customers' needs have evolved. It's meant a shift away from the traditional high-value, low-volume businesses, such as treasury or hedging to a much more e-commerce or B2C flows.

This tends to result in far higher volumes and lower notional transaction sizes. Of course, nowhere has this been more apparent than in digital commerce. We've been working on a project called Payments Express, a new cloud-based, API-enabled instant payments platform, and it's specifically targeted at these digital commerce clients. Now, it's worth remembering that Shahmir mentioned earlier we are already the largest payment provider in the world. But by applying the technologies and the approaches that we've discussed today, we will be delivering a platform that will increase our payment capacity by over 100 times. It will also be the fastest time to market of a substantial client offering. We started at the beginning of the year, and we aim to go live in two major markets within a year. We will then rapidly expand to cover our clients' growing digital commerce needs in up to 30 markets over the next few years, covering over 90% of the expected flows.

This highlights the power of the Citi network. Again, it's hard to expand this quickly if you don't already have the people, the infrastructure, and the relationships on the ground. Finally, I should mention that the cross-functional team working on project includes risk and compliance, so that we can codify related policies and eliminate all manual intervention. This means that we can achieve the level of client experience and throughput we require, and what we learn we can feed back into our broader transformation program. Let me summarize. We have invested and we continue to invest in the technology to deliver the foundations that form the bases of all of our plans. Alongside this, we are partnering with the ecosystem and improving our delivery. And technology plays a critical role in deploying our solutions globally, allowing us to harness the power of the Citi network. Ultimately, our technology investment will ensure that we deliver on the transformation areas Karen spoke about, that we empower the company for more profitable growth, and that we create and maintain the competitive advantage that brings customers to Citi. Thank you very much. Now, let me hand over the stage to Mark Mason.