The Future of Money: Capturing the Promise and Managing the Perils of Financial Technology for a Sustainable World

Keynote Speech to the United Nations Secretary-General’s Task Force on Digital Financing of the Sustainable Development Goals

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I’ve been asked to talk to you this morning about the future of money and comment on how we capture the promise and avoid the perils of digital money.

First, let me say that I promised Maria Ramos, yesterday, that I would read the Task Force on Digital Financing of the SDGs report cover to cover last night before I put pen to paper for my talk this morning.1 And while it was a late night, I made good on my word, so let me begin by congratulating all of you on your tremendous progress to date. The report is fantastic. It’s a must-read for anyone who cares about this subject.

I agree thematically with the report that technology is shifting the center of gravity toward the citizen; our digital world is distributed, from micro-grids to mesh networks, from IOT to edge computing and DLT. The gravity shift is shaking our centralized systems, and simultaneously pushing us all closer to the planet’s furthermost citizen. While disruptive, the digital world is also creating waves of opportunities, including for sustainable development. At the same time, it is also creating not only a dramatic “governance imperative,” as the report puts it, but in my opinion a near overwhelming governance challenge. This is nowhere more clear than it is in my world, the financial technology world, and particularly so in the world of digital money.

The estimate by many in this room is that the annual funding needs for the SDGs are $4.5 trillion. Furthermore, there are widespread estimates of an annual funding gap for the SDGs of approximately $3 trillion, roughly 3% of global GDP, which I wrote about when the SDGs were first launched.2 Over our remaining ten years, this adds up to a staggering $30 trillion, which is, by the way, roughly equivalent to the totality of the ESG benchmarked asset pool.

Private sector and capital markets funding have the potential to close this $30 trillion gap. I have written, for example, on how we must take the Green Bond and Theme Bond

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markets quickly to $1 trillion. Augmenting private sector funding from billions to trillions will require a paradigm shift in development finance of historic proportion.

But while capital markets represent one of the most powerful sources of developmental funding, we should think of “applied tech for development” as a tool to radically reduce the denominator, or the overall cost estimates of what is necessary to achieve the SDGs. I firmly believe that in light of applied technology, our cost estimates are significantly overstated. This means that targeting scalable tech would allow us to do much more, faster and with less money.

Let’s move now to digital money—the “anti-cash.” Despite its historical significance and habitual societal entrenchment, I start with the premise that cash is bad. Yesterday, I had the honor to present to President Barham Salih of Iraq, and I recommended that he make cash, manual processes, and paper documentation his three new enemies. And I recommend the same to the Secretary-General’s Task Force.

The “Better Than Cash” initiative, which many of you support, doesn’t say what exactly is “better than cash.” There is no need; the economic cost of cash at the base of the pyramid speaks for itself. Digital money is simply better. Aside from being costly, inefficient and bereft of data, cash after all is the fountain of corruption. 1.6 billion people a year pay a petty bribe to get assistance to which they are entitled. That only happens because of cash. Digital money on the other hand, walks into the dark room of corruption and shines a big, bright spot-light. And Artificial Intelligence turned loose on electronified payment data becomes a search-and-destroy tool for anti-corruption initiatives.

All totaled, it is estimated that some $400 billion in annual savings could be achieved by converting cash payments to the digital world. Governments disburse some $9 trillion a year, and estimates of the cash lost to leakage in G2P flows is anywhere between 10 and 25%, depending on the country. Digital has the potential to shift a trillion dollars or more of flows from the informal to formal economy.

The Task Force report talks about “opportunity waves.” I believe that the waves of digital financial opportunities gain magnitude with: (1) identity—the first lynchpin in the digital chain; (2) connectivity—the ultimate enabler of digital finance; and (3) alternative payment models, through which the world is flattened and distributed and financial inclusion is accelerated.

When combined with a dose of entrepreneurialism, the above “opportunity waves” grow exponentially in size and power. Do me a favor and close your eyes for a second. Imagine a country that adopts an Indian Aadhaar-like identity solution and implements an Indian Digi Locker-type program to protect citizen data. Imagine now that you combine this with Loon or OneWeb connectivity that can deliver 4G LTE and 5G to remote rural areas, much like what we are already seeing in Peru, Puerto Rico, and Kenya. To that foundation, add Swift GPI for global payments and locally an M-Pesa or Alipay-type Alternative Payment Model (APM). Then, in this country in your mind, build in a QR code process, hyperlinking the physical world to payment information and real time data, and an efficient API that effortlessly connects the ecosystem. Now, combine all those elements, none of which are futuristic by the way, with a Monetary Authority of

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Singapore-style, technologically advanced, nimble-yet-prudent regulator. Given that level of applied digital financial technology, how many of you would bet that we could radically cut the delivery time and cost of the SDG targets in such a country? I know I would.

And yet those elements alone are not enough. As for any good recipe, particularly in the digital money world, sequence matters. Jason Channell, Citi’s Sustainability analyst, has written extensively on this, and I believe he too has demonstrated that prioritizing and sequencing funding increases impact and drives down cost. Look at his analysis of the bang-for-the-buck spent on water and its ripple effect across other SDGs.

On top of that, the coordination of deployment amongst and within a given ecosystem can mean the difference between success and failure. As a recent example, Citi led the launch of an instant payment QR code initiative for the low end of the pyramid in Mexico, but we required the full and simultaneous buy-in of the Mexican orchestra or we would have had a cacophony. With the right convener of the participating parties and a credible conductor (so to speak) for deployment, sequencing and cooperation, a digital financial ecosystem capable of delivering on the Global Goals can come together to adopt and fund digital financial innovations to scale.

But while we talk a lot about the financial innovation, I want to be clear. The real future potential of money isn’t actually really just about the money; it is about the exponential power of the data bolted to the electronified payment flows: digital payments and collections inextricably linked to information—petabytes of data. And the application of that associated data to the SDGs is where we get the maximum bang for our digital buck. When that data from the last mile is aggregated and stored in the cloud, where it is analyzed for a myriad of beneficial outcomes by a layer of AI, this big data analytical potential will drive what I call “additionality-positive disruption.”

As we have seen from countless SDG-targeted apps, data and digital money move both ways, making the outcomes more specific, more targeted and more efficient. This electronification process has the potential to fundamentally transform not only “financially inclusive” payments as we know them but also consumer credit analysis for unbanked individuals, lending models for banks and fintechs, reduced insurance risk premium for farmers, improved impact analysis for developmental agencies and NGOs, and—perhaps most importantly—feed a surge of entrepreneurial SMEs. As you know well, SMEs drive employment and livelihood—and that is where the true money is.

If the ecosystem in this room truly focuses on this potentiality, we could witness a kind of Moore’s Law of sustainable finance, in which the combination of digital identity, connectivity, big data and digital money at the lower end of the pyramid are bolted to all kinds of technological “adjacent possibilities,” which in all likelihood would propel us forward toward the Global Goals.

I believe that your sustainable opportunity waves will flow faster through the digital financial world as we add a sustainability lens to private sector digital innovation. When purpose is added to the profitability paradigm, it will enable accelerated progress and ensure dividends. But this acceleration will only take place if that “sustainability lens” is driven from the corporate board room and C-suite down all the way to the customer’s

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product or service last mile. And that financial last mile is everything. It is where we are currently largely blind, both financially and digitally. Yet if we connect the last mile at the very bottom of the period, the digital financial potential goes viral.

I agree with those of you in this room who believe that we have yet to really apply the tech we need aggressively to the goals. But it is there for the taking. As only one example, in China, ATMs are getting closed like brick and mortar branches in the West; digital money is literally eliminating the need for cash in parts of China. Witness the facial recognition technology using AI algorithms linked to WeChat that is being used to pay for an order of KFC in Beijing.

As disruptive as it may be, speed is necessary; time is not an SDG friend. We know all to well how fast the five years since Addis Ababa came and went. I am an adjunct professor at Georgetown and teach a graduate class on tech applied to the SDGs. The model that I have given my students is “speed to scale”: we have to accelerate the application of existing technologies to the SDGs, pilot and sandbox them, perfect them, and then fund them to global scale while still leaving enough years on the back-end for the solutions to have impact.

Yes, digital payments that are real time, 24/7, frictionless, fairly priced, ubiquitous, global, offer excellent customer experience, and contribute to sustainability are in the world’s near-term future. And yes, there will be and already are ecosystem challenges. Platform inter-operability will be critical in the digital payment world of the future and is one of the reasons we at Citi are rapidly plugging our pipes—pipes that move over $3 trillion a day—into a myriad of APMs around the world.

Let me turn now to a few perils, perils for us all to manage. To build on Thomas Friedman, in the digital money world, if governments don’t run and govern smarter, the slope of the technology curve will not only cross their “adaptability curve,” but governments will risk losing the opportunities and end up multiplying the risk. We joke about the expression, “it’s not rocket science,” yet in a digitally-disrupted financial world, it very well may be. The technological aptitude required to regulate the AI applied algorithms used to construct behavioral credit profiles off of MNO data is non-trivial.

So let me conclude with a few words on digital currency. I personally believe that the advent of Bitcoin will be looked back upon much as is the invention of dynamite relative to spacecraft technology: an initial building block along a long journey of iterative and dynamic adaptation. My view is that the journey for tools and solutions to transact through digital currencies and manage digital assets appropriately will take time. That said, I believe that there is a role for a variety of digital currencies, including national digital currencies provided by central banks. Of course, the question is really not if but when and how many, how fast. Moves to modernize and digitize fiat money must under all circumstances focus on the continued and constantly improving protection of citizen assets, deposits and funds. This is mission critical.

The financial ecosystem will have to work ever more closely to find ways to address critically important aspects of digital currencies such as protecting citizens’ privacy and the safety of their data, combating criminal activity, preventing fraud, enforcing sanctions, and blocking terrorist financing. Financial system participants should be and are working with regulators to ensure that these issues are addressed and are also done

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in a safe and stable way—in a way that does not pose systemic risks to the global financial and monetary regimes.

Digital or otherwise, trust must remain the “coin of the realm” and be fully maintained if we are to avoid the potential perils and harness the tremendous promise of digital finance for the achievement of the SDGs.

Thank you.