



ROBIN VINCE & BILL DUDLEY: Preparing for the Next Economic Stress Test

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Featuring:

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GARRETT MARQUIS: Hi everyone, this is Garrett Marquis, Global Head of External Communications here at BNY Mellon. Welcome back for another episode of our BNY Mellon Perspectives podcast.

Today, we have two Wall Street veterans and prominent leaders of the financial industry: Robin Vince, our Vice Chair and CEO of Global Market Infrastructure, and Dr. William C. Dudley. Now, Bill Dudley has held leadership positions in both the private and public sectors. He is one of the United States' most respected economists – after two decades at another global financial institution, he joined the New York Federal Reserve in 2007.

In early 2009, a very precarious time in the markets at the height of the financial crisis, Bill was appointed President [of the New York Fed], and he was responsible for helping set policies to get us out of the crisis and better prepare our financial system for future events that shake markets. Of course, we saw that future event break out before our eyes in early 2020, with the COVID-19 pandemic and subsequent economic and financial crisis.

Bill takes us behind the scenes of what went wrong, what went right, and what was surprising last year through the lens of that prior crisis. He and Robin also take us through a number of macroeconomic trends and Fed policy decisions. Bill gives his views on tapering, which is a top-of-mind item for industry participants of all vantage points; inflation; and dysfunction in U.S. Treasury and money market mutual funds. And he even gives us a preview of reforms he would like to see to make our system as resilient and robust as it can be.

So without further ado, please enjoy this conversation between Bill Dudley and Robin Vince. I think today's discussion is topical for anyone interested in the immediate and long-term future of capital markets. As always, please listen, rate, review, and subscribe wherever you get your podcasts. See

you at the next episode.

ROBIN VINCE: Bill, we're delighted to have you join us today for this episode of BNY Mellon Perspectives. You and I have known each other for many years. We both worked at another global financial institution in a past life, but you've had a whole breadth of experience in the private and public sectors throughout your career. So maybe we could start there a little bit. I'd love to set the scene with that.

You joined the New York Federal Reserve in 2007. You became its President in January 2009, and you served in that role for almost a decade. So, before we dive in, maybe you could recap that history for us. What came before landing at the Fed? And give us your quick backstory as well.

BILL DUDLEY: Well, I went to Berkeley graduate school, got a Ph.D. in Microeconomics. I took one course in graduate school in Macro[economics] from George Akerlof, who's Janet Yellen's husband, and I got a B in it. I got As in everything else, so I didn't foreshadow a macroeconomics orientation in my career. But when Goldman Sachs hired me, they were interested in my experience in terms of bank regulation and knowledge about how all the plumbing works. And so that's how I sort of switched gears and moved from regulatory policy to macro, and I worked at Goldman for 20 years. And I left, like a lot of people [that] leave Goldman, [because] there was no job I wanted that they would give me. I'd been in the same job for 10 years and it was time for a change. So, I announced my retirement at the end of 2005, and spent 2006 helping Jan Hatzius get off to a good start.

I didn't really know what was going to be next, and what happened was, Tim Geithner called me up on the phone sometime in early 2006 and said, "You want to come over and be my advisor?" And I said, "I'd love to advise you, Tim, but what do I do for the rest of my 40 or 50-hour workweeks?" And he didn't have a good answer to that, so I declined.

Then, he called me back a few months later and said, "Well, how about running the Markets Group?" The Markets Group basically is the group at the New York Fed that implements monetary policy on behalf of the Federal Reserve System. And that struck me as a real job. And so, it didn't take me long to decide that that was really something worth undertaking.

And then of course, when Tim got kicked upstairs and became Secretary of the Treasury – not something I was expecting – I was at the right place at the right time, in the middle of a financial crisis. It wasn't really a great time to bring someone from the outside to the New York Fed, and so I got the opportunity to be President of the New York Fed. But, a huge amount of luck involved in that career path.

ROBIN VINCE: So maybe we could pick up the story right there, at the time that you took on the role of President. I mean we've just commemorated the 20-year anniversary of 9/11. That certainly led to a heightened sense of reflection on lots of things for me, and I expect some of our other listeners as well. And clearly that tragedy, that day, had an enormous human impact, but it also had a big impact on global markets. And then during the years after that, we saw a variety of different interrelated forces, which really brought us to the recession of 2008.

So maybe you could pick up the story there. You were at the New York Fed. You were in the top job there, really, through the financial crisis, but very much at the peak, with taking that role of the presidency of that organization.

Take us back in time. The country had just inaugurated a new President. There was so much uncertainty in financial markets. We still hadn't seen the bottom of the stock market. What was it like inside the financial system HQ? What was happening?

BILL DUDLEY: Well obviously for the first part of 2009, with a new team at the White House, it takes some time to get up to speed. The economy is still headed south, the unemployment rates are climbing, and financial markets are still under a tremendous amount of distress. To me, that turning point was the famous stress tests that were applied to banks, where banks were basically stressed, and the TARP money was used to ensure that the banks had enough capital to withstand a very bad adverse environment.

When the Fed published the results of the stress tests and the amount of capital that the major firms needed to raise, either in the markets or to come from the government, I remember the next day the reaction of the private sector was overwhelmingly positive that the stress tests were credible. People were now confident that the capital was going to go into the banking system, and that really was the turning point in the spring of 2009. And after that, things gradually got better.

ROBIN VINCE: So, we're 18 months into the pandemic – unfortunately, [it's] not over yet. Maybe we could just pivot a second and talk about this crisis a little bit through that lens of 2008 and 2009. We've seen some of the same tools come out of the toolkit that were used back in the day. How did those policies that were enacted more than a decade prior inform the response to what happened last year in 2020? What surprised you? What should have surprised us? What should not have surprised us? Maybe talk a little bit about some of those tools and how you think about what happened more recently.

BILL DUDLEY: Well, I think that was very fortunate that the Fed had these tools on the shelf. I mean, the problem in 2007 was [that] almost all of these special liquidity facilities hadn't been developed. No one knew how they were actually going to work, in terms of the plumbing, and whether they'd actually be effective. They worked quite well in 2008 and into 2009, and so, when the pandemic hit, the Fed had a whole set of tools that it could just take down from the shelf and put into place very, very quickly.

The other thing, I think, that was important, is that market participants knew that these tools would work. And so, just the very fact that the Fed was announcing that it was going to move aggressively last March – March of 2020 – I think that was reassuring to confidence. So, the other thing, I think, that was very important, is that we basically made the banking system much more robust to stress post-the great financial crisis. The capital and liquidity requirements, et cetera, were increased significantly. And one thing that we really passed with flying colors, I think, in this last crisis, is that the banking system came through in very good shape.

ROBIN VINCE: I think that's what you mentioned earlier on, in the context of the financial crisis itself. The creation of the stress tests, and then you just touched there on the capital and liquidity regulation and some of those processes, they can sometimes be quite contentious in the marketplace. But in many respects, they've clearly served us very well.

Maybe just touch a little bit on how important you think that combination of stress tests, capital in the system, and focus on liquidity have actually been, because it seems to me that they were very

important to not having a repeat of 2008 and '09 when we had this pandemic. Where do you sit on that?

BILL DUDLEY: Well, obviously, bankers generally would prefer to have less capital requirements, less liquidity requirements, because those things do exert a cost, and it does show up in reduced profitability and a lower return on equity. But you have to judge a bank's performance, not in the peak of the cycle, but through the cycle. And I think those higher capital and liquidity requirements have actually stood the banking system in quite good stead to withstand stress. And it caused bank counterparties to be comfortable to continue to deal with banks.

I mean, the problem that we had in 2008 is that people panicked. They basically ran away from the banking system. It wasn't just an investment banking problem; it was a much broader problem, in part because of inadequate capital in the banking system.

ROBIN VINCE: So maybe we can just take that and go over it a little better. I'd love to talk about stresses on the system that were a little bit more specific to this most recent event. The pandemic imposed a whole bunch of additional stress on institutions. Everything had to go remote, which was a different experience, of course, than we'd had before. We all had to adapt; it was virtually overnight. Give me a sense of how the financial services industry and banks, including BNY Mellon, responded to that, and what your assessment of that has been with your background, looking from your external vantage point at this moment.

BILL DUDLEY: Well, I think generally [that] the system performed quite well, although I have to say the non-bank financial portion of the system had the greatest amount of difficulties. We had runs again on money market mutual funds. We thought we had fixed the money market fund industry by two reforms that were enacted in the prior decade, but obviously that wasn't sufficient. I think the other big surprise was all the stress in the U.S. Treasury market.

Typically, when we are going into a big financial shock, there's a flight to Treasuries. But in March of 2020, for a little while, there were actually people trying to convert Treasuries into cash, and they were overwhelming the capacity of the system to fund those Treasury securities. So that was a huge surprise to people in financial markets and policymakers, and so a lot of things are underway now to make sure that we don't ever repeat that episode.

Another lesson of the financial crisis is that we still don't have our hands around regulating the non-bank financial sector. If you think about the Dodd-Frank Act, they established the Financial Stability Oversight Council to deal with problems outside of the core banking system – I think it's not been very effective.

ROBIN VINCE: So, let's pick up on both of those things. I mean, you mentioned the U.S. Treasury markets; clearly there was disruption in those markets, but it's not the first time in recent years that we've seen it. We saw a repo market spike, of sorts, in September of 2019, and then we had the significant sell-off that you were just describing in March of 2020. That's led, as it should, to a debate around whether we need additional reforms.

What else can we do? Maybe I just ask you the simple question, and this is very important, I think, given what's going on with the additional debt that the U.S. Treasury is raising: Is the U.S. Treasury market resilient?

BILL DUDLEY: I think it can be resilient, but I think we need more tools. One tool, I think, is the Fed has already announced a standing repo facility to backstop the Treasury market. I think it would be better if it were bigger, unlimited in size, and I think it would be better if it was broader – not just opened up to regulated institutions, but available more broadly. But we're making progress on that score.

The other area I think we really do need to address is providing more scope for primary dealers and commercial banks to take Treasuries on their balance sheet during times of stress. As you know, the capital regime includes what's called the supplemental leverage ratio, which treats Treasuries just the same as commercial loans and more risky assets. And so, what we saw in the spring of 2020, it wasn't just the fact that there wasn't this Federal Reserve backstop to the Treasury market; it was also because the supplemental leverage ratio is becoming more binding. So I think doing something there that treats Treasuries a bit differently, to reflect the fact that they truly are safe assets, could help expand the capacity of the Treasury market during times of stress.

ROBIN VINCE: So that's just going back to the events. Is it as simple as there weren't enough buyers for sellers at the moment?

BILL DUDLEY: I think there are a lot of people in March of 2020 who wanted to exchange their Treasuries into cash. And, at first, nothing particularly horrible happened. But as that got underway in earnest, the Treasury market itself started to behave poorly, which just reinforced the incentives to turn Treasuries into cash. If the Fed has a standing repo facility that basically is open to a broad set of commerce with unlimited capacity, I think that would minimize the flight to cash, because they'll be reassured that they don't have to panic. And number two, it would limit how high repo rates can get, as people are having trouble refinancing Treasuries in the marketplace.

ROBIN VINCE: I guess that's the cost of being the deepest and most liquid market in the world; sometimes, that really comes to the reality that people need to raise their liquidity. You touched on another dysfunction, which I'd love to touch on a little bit more, which is the stress in the money market mutual funds. You alluded to it, there have been several rounds of reforms globally trying to strengthen that market. They clearly went through a lot of stress in 2008; we saw different things happening in 2020. I'm an old money markets guy, so I have a little bit of special affection for this market, but you alluded to the fact that maybe we haven't gotten this completely right. Could you just touch on that a little bit more? What do you think is the issue, and what do you think we maybe should consider doing as a financial services industry in this space?

BILL DUDLEY: Well, I think the problems that you saw in money market mutual funds in the spring of 2020 was really due to the fact that we didn't get the incentives right. So we established these liquidity requirements for money market mutual funds, a buffer, and we basically said that if the buffer is penetrated, if you go below the buffer, then the money market mutual fund has the option of putting up redemption gates.

That led to two perverse outcomes in terms of behavior. Number one, money market mutual funds didn't want to use their liquidity buffer, because they were worried about what would happen if they started to contemplate putting up their gates. So, the liquidity buffers were basically not really available, so they actually had to sell assets rather than use the liquidity buffers, which obviously increased the stress in the market.

And the second perverse incentive that would develop from that was that people rushed to the money market funds to get their money out before the liquidity buffers were pierced, because they were worried that the redemption gates might go up if the money market funds fell below those limits.

So, if you get the incentives wrong, you're going to get the behavior that you don't like, and I think that's the core issue that needs to be addressed in terms of money market fund reform.

ROBIN VINCE: It's interesting [that] both in your U.S. Treasuries example and in your money market funds example, it's essentially the perils of pro-cyclicality in terms of the behaviors as the common denominator there. All right, you talked about being an economist. That was the beginning, where you started and where you spent, still to this day, the longest single chapter of your career practicing the macroeconomic policy and really looking at that.

Let's talk about that for a second. The Fed has just convened in Jackson Hole, not that long ago. We'd been talking about tapering now for a few months. They're sending out a variety of different messages around exactly the timing of that. It's sort of talking about talking about tapering; it's probably still the phase that we're in right now.

The European Central Bank is in a not dissimilar position in terms of needing to contemplate all of this. For our listeners here, some of whom may not know what tapering is, could you please just give us a little brief explanation of that and then maybe talk a little bit about the importance of that decision and the timing and your own thoughts about the pace here?

BILL DUDLEY: So the Fed currently is buying, as you know, \$80 billion of Treasuries a month and \$40 billion of agency mortgage-backed securities a month. By buying these securities, the Fed is essentially putting downward pressure on long-term interest rates, which is buying support to financial conditions, and therefore, to the economy. But as the economy is starting to recover from the pandemic, as inflation has surprised on the upside, the idea of continuing to add more and more accommodation seems inappropriate.

And so, the Fed needs to back out of this period of quantitative easing, and the taper is basically the notion of how they do that. They don't just stop. They don't go from \$80 billion a month to zero instantaneously. They gradually reduce the \$80 billion to \$70 billion the next month, \$60 billion the next month, and so on. So, after eight months or so, you go from \$80 billion to zero, and that's probably what's going to happen. I think at the September FOMC meeting, the Fed is almost certainly going to signal that they're even closer to tapering, and I think the general perception right now is the taper process is likely to begin in November.

And if they take it down \$10 billion a month for Treasury and \$5 billion a month for agency mortgage-backed securities, they'll be finished with a taper by the middle of next year. Now, the reason why ending the taper is important is that the Fed is – I think the general view is – the Fed isn't going to raise short-term rates until they've stopped buying securities, because otherwise it makes no sense.

If you're buying securities, you're adding stimulus. If you're raising short-term interest rates, you're removing stimulus. So it doesn't make sense to do both at the same time. So, the pressure on the side of the people who are more hawkish about monetary policy is, let's get the taper done relatively early, because there's a possibility that we might want to tighten monetary policy in the second half of 2022. It will be difficult to do that if we're still buying Treasuries and mortgage-backed securities.

ROBIN VINCE: Are they going quickly enough?

BILL DUDLEY: Well, we'll see. It obviously depends on how the economy evolves. I mean, I think the biggest risk right now is that inflation is higher, it's higher for longer, and it may be true that a lot of the components that are pushing inflation up right now might be transitory. But it's possible that a long period of transitory inflation could cause inflation expectations to start to climb, and that would make inflation more persistent. Sort of interesting: Very recently the New York Fed published their most recent reading on household expectations of inflation, and it hit the highest readings for both one-year inflation expectations and three-year inflation expectations in the history of this survey that goes back to 2013.

So, tapering expectations look like they're starting to become anchored a little bit, and that's problematic for inflation, because if people think inflation is going to be higher in the future, they're more willing to pay out higher wages, and that causes the inflation process to be self-fulfilling in some sense.

ROBIN VINCE: So you alluded to it just then, and I've read some of the things that you've been talking about related to inflation, but yet you've also worked inside the Fed. So, you probably have a good vantage point in terms of... Is the Fed all-knowing? When you look at that institution and you look at the people, and there's certainly a school of thought out there that says they have access to way more information and have way more insight, let's just trust in the Fed. How worried should we be?

BILL DUDLEY: Well, I think that we should be worried in the sense that the uncertainty level is extraordinarily high. We don't have any experience with economies going through pandemics, and we don't have a lot of experience with economies coming out of pandemics with a lot of fiscal-policy stimulus. I think the Fed has a lot of expertise, and I think that means that they get things in the small [picture] very, very well. I mean, they probably have better people to think about what the next Consumer Price Index Report is going to be than anybody in the world.

But, as we saw with the great financial crisis, the Federal Reserve doesn't always get the big picture right. And so, I think there is some risk here in terms of the economic outlook. And I think the Fed policymakers like Chairman [Jerome] Powell should probably be the first to admit that the level of uncertainty right now is very high.

ROBIN VINCE: So one of the things that you've noted previously is that real yields are still shockingly low, despite what we've seen in the stock market, despite the economic recovery seemingly ticking up. Obviously, we still have COVID to contend with. We've got the interesting statistics around the job market and the fears of inflation that you've just been talking about. What are the indicators that you watch? Help us decode, a little bit, these seemingly conflicting signals.

BILL DUDLEY: Well, I can't really decode it because I don't fully understand where 10-year Treasury yields are right now, and where the market is in terms of the spectrum future path of short-term rates. If you look at the Euro dollar futures market, which extends out to 2025-26, the peak in short-term rates, according to that market, is only around 1.75 percent. That seems awfully low in an environment where the Federal Reserve wants to see inflation above 2 percent. So if you start to think the Fed is going to achieve inflation above two percent, and then it's going to have to move to a

tight monetary policy regime relative to that, that seems like a peak in short-term rates, well above 2 percent.

So it's a little surprising right now to understand what's going on in financial markets. One explanation as to why [it's easing]: The fact is, the Fed's buying a lot of long-term assets, and that's pushing people to take on more risk elsewhere. And that may be the thing that's sort of pushing down long-term yields. But obviously, as the Fed pulls back from quantitative easing, as they go through the taper, maybe that supports the Treasury market and for these expectations of very low yields, because it starts to go away.

ROBIN VINCE: So Bill, maybe we could pivot for a second to digital assets and innovation – a different topic, one that I know you care a lot about as well. I remember going to visit the Fed, the U.S. Treasury, maybe 20 years or so ago. I certainly had the sense that they were really the stewards of the financial system. One person's view: It feels to me that over the course of the past decade or two, they've really had to double down on their monetary policy and regulatory mandates.

Those are incredibly important, but their sense of helping to facilitate, encourage, steer the U.S. financial system along the innovation track, maintaining its role as being the greatest in the world, feels that it may have taken a backseat to those other two things, notwithstanding that they are very important. Is that just me being nostalgic? Does any of that resonate with you at all?

BILL DUDLEY: A little bit. I think monetary policy is job one and financial stability is a very important component of that. So, that leads to the focus on regulation and bank supervision, and maybe payments are coming in third place. But, that said, the Fed does have some important initiatives underway in terms of payments. For example, the Fed's moving towards FedNow, which is going to hopefully lead to 24-hour, seven days, real-time payments for retail customers. Where I think you're right that the Fed has been quite slow is in laying down what the ground rules are for digital currencies, regulating stablecoins, really bringing the whole cryptocurrency, stablecoin ecosystem under some sort of regulation and set of rules. Right now, it operates outside of the Federal Reserve, outside of the U.S. regulatory system.

It's getting pretty big, and so, at this point, you start to wonder, are we actually creating some risk here? Stablecoins is a good example. Stablecoins, if they're 100 percent backed by cash at the Federal Reserve, I don't worry about stablecoins at all. But some of the leading stablecoins are backstopped by things like commercial paper. The disclosure is not very good. You could imagine, at some point, a run on stablecoins, and the stablecoins having trouble honoring those runs because, just like money market mutual funds, it's hard to turn financial assets into cash instantaneously.

ROBIN VINCE: Maybe you could also talk to us about the CBDCs, the central bank digital currencies. Do you think, in light of your comments about the private-sector coins, if I could refer to those other two categories in that way, do you think we need a U.S. central bank digital currency?

BILL DUDLEY: I mean, I think we'll have one at some point... Is it absolutely essential? I'm not really certain. I think what I am certain about is that we need to bring all these innovations under some sort of umbrella of supervision and regulation, so we don't have a big accident as this sector gets bigger and bigger.

Look, I think central bank digital currencies make a lot of sense. There's no reason why you can't take a dollar and turn it into a digital obligation rather than a paper obligation. I think the big issue here is, how big is the role of the central bank? Does the Fed offer digital accounts to all its citizens, or does the Fed just stand in as an intermediary to the banking system, and the banking system offers the digital currencies on to the end customers?

I think the Fed is probably reluctant to be the banker to the entire United States citizenry, I think their role will probably be more limited than that, but this all needs to be worked out. And I think it needs to be worked out relatively quickly because, as you know, the growth rate of stablecoins and cryptocurrencies has been very, very rapid over the last few years. So we're not talking about a sector that's very small anymore. And I don't think people who are operating in that sector necessarily understand all the risks that are actually out there.

ROBIN VINCE: I don't know if you've spent much time on decentralized finance. I mean, I think about the broad world of digital assets as four buckets. Cryptos – we talk a lot about it. They get a disproportionate amount of the attention, probably. Second, we just talked about stablecoins. Tokenized assets is very interesting as well, as a third category. But that fourth one, decentralized finance, seems to me to be an area where there's just a lot of opportunity and a lot of potential for real disruption in the financial services industry. And it's a set of new capabilities that many fintechs are expecting to be able to ride to very significant market prominence in the future.

Could you just touch on some of your thoughts on that? Is this a little side show, but the banking system's going to remain relatively unchanged, or do you see a much bigger sweeping change to come over the years ahead from decentralized finance?

BILL DUDLEY: The honest answer is I don't know, but I do think that there really is a potential for pretty large disruption, because the pace of innovation is much faster. Things can be divided into different functions and uses.

I remember I had an account, a checking account and a savings account, at a major U.S. bank. And it turned out, I wanted to move money from my checking account to a certificate of deposit at the same bank. It took me 45 minutes sitting next to the banker to effectuate that change, which is pretty remarkable, but that suggests that there's plenty of room for innovation to come in and make your customer experience more pleasant.

ROBIN VINCE: So Bill, maybe I could just finish with a broader perspective from you. You're a “professional worrier.” You can't have been in the businesses that you're in without being. I've been a Chief Risk Officer, so that qualifies as a professional worrier as well. You know, what else is on your list of concerns and worries right now for the financial system?

BILL DUDLEY: Well, I do worry a lot about the bond market and the low level of bond yields, and the essential consequences out of people's stretching for yield for returns elsewhere. So if you look at high-yield debt, if you look at the stock market, I think all these things are really the consequence of 10-year Treasury yields currently around 1.3 percent.

So I worry about what happens if the Fed gets behind the curve, inflation becomes more of a problem, [if] the Fed has to stand on the brakes a little bit harder, and if market participants lose confidence in the Fed. For the last 10 years, we've been talking about the low level of bond-term

premium. In other words, you don't get compensation for holding a long-dated asset relative to a series of short-dated assets.

People have actually been holding bonds as a hedge against bad economic outcomes, like economic downturns. That could change a lot. And so, I guess I would really worry about the bond market, and if the bond market were to have a significant problem, it's hard to believe that that wouldn't have ripple effects to high-yield debt, and also to the U.S. stock market.

ROBIN VINCE: Bill, all too fascinating. I mean, I could do this for hours, but I have to thank you very much indeed for being with us today for this edition of BNY Mellon Perspectives. So, thank you very much on behalf of myself and our listeners.

BILL DUDLEY: Thank you. It's been a pleasure,

GARRETT MARQUIS: Hey everyone, Garrett here again. Thanks again for joining. I hope you enjoyed that conversation. As I said at the top, keep listening on Apple Podcasts, on Spotify or wherever you consume your podcasts. Most importantly, if you're willing, leave a review or a rating and tell us your feedback. You can find us on social media – LinkedIn, Twitter, Facebook, Instagram – and BNYMellon.com. Thanks for listening. We'll see you at the next episode.