Introduction:

The Yale Program on Financial Stability (YPFS) contacted Mr. Timothy Massad by email to request an interview regarding Mr. Massad’s time as Assistant Secretary for Financial Stability and Chairman of the U.S. Commodity Futures Trading Commission.2

During the Global Financial Crisis, Professor Massad oversaw the Troubled Asset Relief Program (TARP). He was involved both in the implementation of the TARP as well as its winding down. Prior to serving at the Treasury Department, he was the first special counsel to the newly formed Congressional Oversight Panel for TARP (COP) chaired by Professor Elizabeth Warren. Mr. Massad wrote an analysis of the investments made by Treasury under TARP for one of the panel’s first reports.

Following his time at the Treasury, Mr. Massad served as the Chairman of the U.S. Commodity Futures and Trading Commission (CFTC) from 2014 to 2017. During this time, the Commission implemented critical reforms of the over-the-counter swaps market set forth in the Dodd Frank Wall Street Consumer Protection Act, which addressed many of the regulatory failures that contributed to the crisis. The Commission also enhanced cybersecurity for critical market infrastructure, improved the resilience of clearinghouses, harmonized cross-border regulation, and reduced regulatory burdens on commercial businesses.

Before his work with the COP and the Treasury, Mr. Massad was a partner in the law firm of Cravath, Swaine & Moore LLP, with a focus on corporate finance and financial markets.

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1 The opinions expressed during this interview are those of Mr. Massad, and not those any of the institutions for which the interview subject is affiliated.

2 A stylized summary of the key observations and insights gleamed from this interview with Mr. Massad is available in the Yale Program on Financial Stability’s Journal of Financial Crises.
YPFS: For the record, could you please elaborate on your role during the last financial crisis of 2008 and 2009?

Massad: I was a lawyer in private practice when the crisis first started. I had been with a law firm for 25 years, as a corporate lawyer who specialized in financial markets and financial institutions work all over the world... After the Troubled Asset Relief Program (TARP) legislation passed, I was asked by, then, Professor, Elizabeth Warren to help the Congressional Oversight Panel for TARP, which had just been established. I left the [law] firm and I became their first special counsel. I did an analysis of the TARP investments that had been made at that point, which were largely big bank investments and the AIG (American International Group) investment. That was part of their first really substantive report. Shortly after that, President Obama took office and I joined the Treasury Department in the spring as chief counsel for the Office of Financial Stability, the newly created division charged with implementing the TARP program. I became the Assistant Secretary for Financial Stability in 2010, which meant I was in charge of TARP, and I served in that position until 2014 when I became the Chairman of the Commodity Futures Trading Commission.

YPFS: How was the TARP process? I mean, what were your concerns and challenges in implementing it?

Massad: When I joined Treasury in the spring of 2009, those were still very dark and challenging days. We had not yet stabilized the financial system. There were still concerns that some of the largest institutions might fail, and the recession was getting worse. We were continuing to make new TARP investments to try to stabilize things. We were continuing to implement the Capital Purchase Program (CPP), which was the primary program used to assist banks that was established under the Paulson Treasury. It was, in some ways, one of the easier programs to administer because it was straightforward: It was open to all banks, as long as they were solvent, and investments were made on the same terms for any bank. The basic formula was Treasury would buy preferred stock in an amount equal to 3% of the bank’s risk weighted assets.

The other challenges we had were with the really troubled institutions. When I first joined, a typical day might involve going from meeting on whether AIG would fail to one on whether Citibank was in trouble, to one on how we were going to deal with the auto industry and the likely bankruptcies there, and then someone would say, "The state of California might default on some of its debt. Can we do anything about that?" So, it was one thing after another in that spring. Once the stress tests were completed and the results announced in May, we started to see a little glimmer of light with the big banks. The strongest were able to raise private capital and repay Treasury. However, we
still had a lot of challenges with those big, troubled institutions as well as implementing programs to address the credit and housing markets. The asset-backed securities markets which are critical sources of credit were largely shut down. Foreclosure starts were rising rapidly. We spent a lot of time on the housing market problems, on restarting credit markets, and on how to get money to smaller institutions, smaller banks.

There are a couple of misconceptions about TARP that made our work challenging. One was a lot of people thought it was a big pot of money and that the Treasury could do anything it wanted. That is not true. The money could only be used to purchase financial instruments from financial institutions. Now, we found creative ways to implement that, so that a program of mortgage qualification assistance could meet that standard, but it required a lot of complicated structuring. There were many ideas for programs that we could not implement because of limits in the law, however, such as what could we do to help small businesses.

Plus, there were provisions in the law which caused many institutions to not want to take the money. There were much tighter executive compensation restrictions added in February of 2009. Those were appropriate for the big banks because we did not want the big banks paying large bonuses or granting golden parachutes, and we clamped down on that. However, the law also applied these prohibitions to small institutions. When you applied a prohibition on severance to the top 10 employees, or a prohibition on bonuses to the top 25 employees, in the case of a small bank, that could mean the secretary could not be given his or her pension. So, a lot of smaller institutions did not want to take a lot of money as we got further and further into 2009. Those provisions also made it very difficult to set up a small business lending program. We eventually had to go to Congress for separate authority to help small businesses.

Those were some of the bigger challenges. With housing, we decided that we did not have enough money to buy all the troubled mortgages in the country, of course, so we tried to leverage the money. However, we were working through the big banks because they were the servicers of mortgages, and they were totally unprepared, totally ill-equipped to deal with the crisis. As servicers, they were used to collecting payments on performing mortgages and sending them off to investors. In the crisis, though, what we needed was the ability to deal with people individually and figure out what their individual circumstances required in terms of modifying their mortgage. The big banks were totally ill-equipped to do that. So, it took us a long time to get to the point where they could execute the mortgage modification program. We had our compliance staff reviewing what they did, and we pointed out their failures and made many revisions to the program. I think, ultimately, we all feel that we were unable to do as much we wanted.
The other challenge was simply this perception that we were helping Wall Street and not Main Street. The way we looked at that was, the financial system is like the circulatory system of the human body. We had to stabilize it. We had to deal with the heart attack, and we had to deal with that failure to keep the economy from going into an even deeper recession. However, there was still a lot of suffering going on that we could not address through TARP, but that needed to be addressed. The American Recovery and Reinvestment Act certainly helped, but that is where I think there should have been more aggressive fiscal policy to help the people who really suffered as a result of the crisis. There was not enough of that.

YPFS: You briefly touched on it in your last sentence, but would you do anything differently, looking back at it 10 years later and seeing the results of what was done, and what was not done, of course?

Massad: The main thing I would do differently, if I had the authority to do it, would have been to have much more aggressive fiscal policy that could cushion the impact of the crisis on average Americans. There was simply not enough done to help people who lost their jobs, who were struggling to keep their homes and so forth. The TARP legislation talked about helping homeowners, helping adversely affected populations, but it did not give us any specific authority to do that, and we were limited by the issues noted above. So, in the case of housing as I noted, we had to create a mechanism to provide assistance that relied on the big banks and servicers, and because of that we had a lot of challenges in actually getting money to people.

YPFS: I think the direct payments to individuals and the foreclosure and eviction moratoriums in the Coronavirus Aid, Relief and Economic Security (CARES) Act were the types of thing needed. That would have required legislation, of course, and we did not have the authority to do that, but I think that is the kind of action we needed in this crisis. So, a lot of the things I would have liked to see done differently would have required Congressional action to implement a foreclosure moratorium, implement greater assistance to people on the lower rungs of the income scale or people who were unemployed, so that the suffering caused by the crisis would have been more directly addressed.

YPFS: It seems like there was the will and the knowledge to do much more for the average Americans, but there was no way to pass it from the Congress. Did I get that right?

Massad: Yes.

YPFS: Why was there such an impediment at the Congress?

Massad: Because Republicans were worried about increasing government debt too much. The Obama administration was able, in February of 2009, to get the Recovery and Reinvestment Act passed, which provided some very good
assistance in the way of tax breaks for the middle class, support for education and healthcare, transfer payments, infrastructure investments and so forth. However, that was passed without any Republican votes in the House and only a few in the Senate, and its size was the largest the Administration could get done. They thought about making it bigger, but they did not know if they could get it passed. Then, when they tried to get further assistance later, they were not able to do that. Again, the Republicans were worried about increasing government debt, a concern that was totally absent when they later passed tax reform. However, that was the basic problem.

YPFS: Do you think that it actually helped the U.S. economy to not increase the spending so much?

Massad: No. It would have been much better had we been more aggressive in terms of fiscal policy to help those who were suffering. Our economy would have recovered faster, and we would not have had as many people suffering. We saw that with the CARES Act. Payments that were sent to individuals were often used to make expenditures that helped support the economy. I think we did a good job at Treasury in terms of executing the abilities we had in TARP to stabilize the financial system. That required capitalizing the system, providing some broad-based guarantees and support for financial liabilities. TARP, in combination with the actions that the Federal Reserve took and the FDIC (Federal Deposit Insurance Corporation,) was very effective. We were able to stop the panic, we were able to gradually attract private capital back into the system, and that gave us time to deal with the most troubled institutions, such as the auto companies and big banks like Citibank and Chase and so forth.

We were able to restart the credit markets that provide auto loans, bank credit cards, student loans and other forms of credit. We had some very successful programs in that area, such as the TALF (Term Asset-Backed Securities Loan Facility) and the PPIP, the Public-Private Investment Partnership. Those were extremely successful. We were effective in stabilizing the system, and then very effective in getting out and winding down investments. However, there was still a very bad recession that caused a lot of suffering, and I think the government, as a whole, did not do enough to address that.

TARP meant that the Treasury Department, essentially, had a portfolio of investments that rivaled any private equity firm, any investment firm, and probably any sovereign wealth fund. We were the largest investment portfolio around. Ultimately, we invested $400 billion in various institutions. The management of that was a real challenge also. Some of the things we did worked very well: First, the way that we created a culture, and this was started by the Paulson Treasury under President Bush, and then continued by us in the Obama administration.
I think we created the right culture, which was we did not ask people what party they belonged to. A lot of the people that worked in the Treasury under Secretary Paulson continued to work with us under the Obama administration. It was a culture of very high integrity. We enforced that in lots of ways. It was a culture, as Tim Geithner once said, where we did not want “peacocks or jerks”. "No peacocks, no jerks," was his line about hiring because we wanted team players, but also people who were self-starters and who would work very hard. We drew on the expertise of both the public and private sector. So, hiring was very important. We relied on people from other agencies as well; we relied on outside contractors. All of that worked well.

Secondly, we recognized that we were “reluctant” shareholders in these companies. The fact that we had over $400 billion in investments was simply because of the financial crisis and it was important to wind that down as quickly as we could, and also recognize in the meantime we should act as reluctant shareholders. What that meant was, we did not try to manage these companies. Even where we had significant common equity positions, we focused on making sure we got the right management and directors in, but then left it to management to run the business or, such as at AIG, to restructure the company. We supported them and worked with them, but we did not try to run the companies. When it came to the exercise of voting rights that came with the shares we owned, we limited ourselves to certain issues. We had certain principles that we abided by—"USD as shareholder" principles, as they were called, where we only voted on four issues: the election and removal of directors, charter and bylaw amendments, major corporate transactions like mergers, and issuances of securities that required a vote. We did not vote on other issues.

We also did not try to use our authority to advance other social policy goals. There were many people who suggested we do so, whether it was fuel standards for the auto companies or outsourcing standards. Whatever the issue was, we took the view that it was not appropriate for the Treasury to manage or try to exercise its influence in those ways. At the same time, we refused to intervene if a company in which we had an investment had a regulatory matter that it was dealing with. I cannot tell you how many companies called us up, and these were companies led by very experienced CEOs, people whose names would be recognized, who would ask us to intervene on their behalf before [Department of] Justice (DOJ) or before the Environmental Protection Agency (EPA) or before some other regulatory agency.

They would say, "Well, the U.S. government has an investment in us, and surely the value of that investment is more important” than the particular issue that they were complaining about. “Isn’t there someone in the U.S. government who decides, when you have competing interests, which one is favored? Isn’t there someone who would look at the value of the investment and what it
takes to maximize that investment, versus this regulatory challenge we’ve got or problem that we have or lawsuit from DOJ, whatever it was, and decide that the investment is more important, and that regulatory issue or lawsuit should be put aside?”

And we would say, "No, it doesn’t work that way. The U.S. government has different agencies with different statutory authority, and we are not going to intervene in what that other agency, the Justice Department, etc. is doing. Our job is simply to manage these investments." There were, again, a lot of CEOs and directors who were very surprised by that, but we stuck to it. Those were some of the issues in managing the portfolio.

Let me go back to your question on what we needed to do better, because the one thing I did not mention and is kind of related to what you were talking about, is that we did not explain what we were doing as well as we should have. Maybe, without the fiscal policy and support that I talked about, it would have been impossible to change the basic narrative that this was just helping Wall Street and not helping Main Street, but I think that we did not do a good job in explaining why we were doing things, and why the actions we were taking would prevent the recession from getting even worse.

That was one of our biggest failings: communication. There are a few reasons for that. There was a view that those communications should just come from the White House overall, but at the same time I think the Obama White House felt it couldn’t really change that narrative either. We were incredibly busy just trying to deal with whatever we were dealing with in this crisis. Again, we would do it as well, but I think we could have done better there.

YPFS: What were some of the legal challenges that you had to make sure that the money went to the right places, the right institutions, and that it was used well?

Massad: A few things... First was the basic statutory requirement. Everything had to be structured as a purchase of a financial instrument from a financial institution and that limited us, for example, when it came to trying to do some sort of small business lending program. That restriction, plus the effect of the executive compensation restrictions on small banks, made it impossible to come up with a small business lending program that would work. We ultimately went to Congress for separate authority to do that. That is number one.

Second would be, from a legal standpoint, was having a due process that was fair and impartial and free of political interference, to make sure decisions were based on objective and consistent criteria. For the bank investments, for example for the Capital Purchase Program, there was a process that was initially set up under the Paulson Treasury, and that we improved on and then
largely continued, where we had a committee of representatives from the various regulators who would first advise us as to whether the institution was solvent. Then we had a very strict process for the terms of the investment. The terms of the investment were the same for all those institutions. We bought preferred stock that had a five percent dividend, and the investment size was three percent of risk-weighted assets. We made some changes to accommodate the very small institutions, the community development financial institutions or co-ops or credit unions and so forth.

Another issue was making sure that there was no political interference. The way we did that was that any time somebody from Congress, or anywhere else, called to try to influence us, I would deal with that and tell them no, and my predecessors, Herb Allison and Neel Kashkari, dealt with it in the same way. We did not let those calls reach the people who were involved in the actual screening of investments and making those decisions. In the case of other programs, like Public-Private Investment Program (PPIP), we had a very elaborate process to pick the investment funds that we partnered with.

Another thing we did was that we used outside firms as advisors to evaluate credit quality of investments and advise us on what were the appropriate terms of the investment (in the case of the more individualized investments such as AIG) or the appropriate terms for selling an investment. We used a lot of advisors in that regard and we had very strict conflict-of-interest requirements imposed on those advisors. So, there were a lot of strategies that we used to make sure that the process was fair, that it was not political, that it was impartial, and that we made investment decisions on economic criteria and what would maximize helping stabilize the financial system. The same was true with the wind down.

On the wind down, I would say a few things. First, there was no playbook, of course, there was no precedent. We had the largest investment fund in the world. How do you unwind that? The question is not just how but also when. Our overall philosophy about that was that we should unwind the investments as soon as practical, consistent with stabilizing the financial system, and preventing taxpayer losses and maximizing returns. Now, those are somewhat competing restraints, but I phrase it that way because we felt our job was not to remain shareholders for as long as we could foresee the value of the investment increasing.

There were some people who would suggest, "You should hold onto those investments for 10 years." Our view was different because, again, we felt that our financial system and our economy function much better if the government is not the shareholder. The fact that we were a shareholder, again, was due to the financial crisis, and it was important from the standpoint of the health of the system to get the government out. At the same time, we did have a duty to prevent losses and maximize returns.
So, we really looked at our strategies depending on both the program as well as the health of the institutions in which we had investments. For example, the stress tests were the first step to unwinding the investments. The stress tests were a means to determine if the largest banks have sufficient capital. When those were conducted by the Federal Reserve in the spring of '09, no one was sure what the outcome would be. However, when the results were made public in May or June, and a number of the banks, it was shown, had sufficient capital or could raise it privately, then a process was developed to allow them to exit the TARP investment. Originally, the CPP contracts that the Paulson Treasury wrote said that recipient funds could not be repaid for the first 3 years. That was changed in February of 2009 under the American Recovery and Reinvestment Act.

That law overrode that contractual standard, but it also imposed harsher executive compensation restrictions that were very important. We did not want the institutions using the money to pay big bonuses or a lot of cash compensation, so we did clamp down on that. However, some of the big banks wanted to repay as soon as they could. A process was developed whereby, if they raised sufficient additional capital, then they were allowed to repay the investments by the Federal Reserve. We worked with the Federal Reserve on that process. So, you had some of the big banks, the healthier big banks, repaying in the summer and fall of 2009. However, when you look at all the other investments, (and there was a group of, what I would call “more troubled institutions,” that included AIG, Citi, Bank of America, and for a while, the autos) it was really one-off, individual strategies in each of those cases. Of course, Citi and Bank of America had received additional capital, or commitments for additional capital, under the Paulson Treasury, beyond what they got from the Capital Purchase Program.

It was financed in the case of Citi. In the case of Bank of America, a few months after the commitment was made, they came to us and said, "Well, we decided we really don‘t need the money. Thank you very much." We said, "Well, wait a minute. The commitment itself by the U.S. government enabled you to raise additional billions of dollars. It is what helped you, that is what reassured the market that you would not go under. So, we believe you owe the U.S. government for the value of that commitment." I, along with Scott Alvarez, the general counsel of the Federal Reserve, and David Miller, our chief investment officer, negotiated with Bank of America over this, where they said, "Well, the papers didn‘t say anything about a government fee," and we said, "Well, no, because we assumed you were taking the money, and then you would have owed us for that, obviously." We had very difficult negotiations, but ultimately, they paid the U.S. government about $500 million that we determined was the value of the commitment.

There was a handful of big institutions where there were really individual strategies as to how to exit. With AIG, for example, there was a massive
restructuring of the company where new leadership was brought in. Jim Millstein, who worked at the Treasury, worked to bring in Bob Benmosche as CEO of AIG. Then we worked on exiting that company, but it took a long time. We had to restructure the investment a couple of times. The company itself, with Treasury’s help, restructured in a variety of ways, and sold a lot of assets. Then we did six equity offerings, including the IPO, including what was, at the time, the largest equity offering ever, a $21 billion equity offering.

We also worked with the Fed, helping them get out of their investments in the Maiden Lane entities, which were related to AIG. We ultimately recovered the entire commitment to AIG. The total value of all the commitments to AIG was $180 billion. We recovered all of that, plus a profit of about $20 billion. With the autos, of course, they went through bankruptcies, and then we did an IPO (initial public offering) of GM, as well as subsequent sales with some of the other companies. We did dribble out programs.

With the banks, we had over 800 bank investments. It was not just the big banks, there were a lot of small banks. Some of them were able to repay, but many of them were not. We created an auction platform whereby we auctioned off investments. So, we auctioned off almost as many investments, in terms of numbers of investments, as were repaid. I think we had close to 200 bank investments that we auctioned off, and 265 that repaid. By dollars, a lot more was repaid than was realized from the auctions because the big banks repaid. They raised private capital and repaid the money.

For the small banks, developing that auction platform was critical. We also, similarly, had developed a platform to realize the value of the warrants that we received. So, there were a lot of different exit strategies, depending on the program. Some programs had exit strategies that we built in from the start, such as the Public-Private Investment Partnership. Our strategy varied depending on the investment. We constantly looked at all the investments and constantly reevaluated our unwind strategies in line with the health of the investment, the health of the overall market, and other considerations. We did not try to time the markets. We focused much more on whether it was the right time, given the program, given the institution that had received the money, and given financial stability concerns overall, to sell, and the best way to do that, depending on whether it was public or private and what kind of shape it was in.

So, those were some of the things... There were all kinds of interesting issues that were raised. A couple more interesting ones were where we were faced with a restructuring of a company, where a bank would come to us and say, "Well, we need to restructure an investment. We’re trying to bring in some other capital." We had to think about, "What should be our strategy here?"
Should we act like a private investment firm who might hold out for the maximum possible return they could get on that investment, or do we recognize that we also want to attract private capital back into the financial system? That is our overall goal. So, we need to keep that in mind as we deal with individual restructures. How will this affect the signals to the marketplace, as to whether private investors should be putting capital back in?"

That was one issue. Certainly, the securities law issues were challenging. Here you had the government as seller of investments. How do we make sure we do not have material, nonpublic information when we sell? How do we define what that means when it is the government who is selling? Is that only the information held by people running the TARP program, or is information that others in the Treasury might have? Does that include information the Comptroller of the Currency might have since he/she is technically under the Treasury? We worked through that and we actually had a lot of discussions with the SEC about that and we came up with procedures to make sure that we did not have inside information when we went to sell an investment. There were all sorts of other challenges. Some were more humorous than others.

I remember, with AIG, they were selling an Asian subsidiary. The stock in that subsidiary that they were selling was called AIA, their Asian subsidiary, and the stock certificates had been pledged to Treasury as collateral for our investment. They were sitting in the vault of the Bank of New York. We were called by the Hong Kong underwriters because they were in the process of closing the sale of the subsidiary, and they wanted the share certificates, and they wanted them flown to Hong Kong on a Friday night so they could be delivered at the closing earlier the next week. They had not told us ahead of time, they just called on a Friday night and said they needed them by Monday. The Bank of New York was closed, the vault was on an automatic timer and would not open again until Monday morning.

Some of the Treasury staff said, "Well, we have got to talk to so and so at the Bank of New York and we have got to blow the door off the vault. How else are we going to get the certificates to Hong Kong on time?" The director of this particular area (director of investment operations) was out of the office because his father has just had a heart attack; he was at the hospital. So, his staff called up the Bank of New York and said, "We want you to blow the door off your vault so we can get the share certificates before Monday." The Bank of New York said, "That's okay, as long as the Treasury pays for it." The Treasury lawyers asked, "How much is that going to cost?" and the Bank said, "Well, we don't know."

The lawyers thought, "Well, $18 billion is at stake (that was what Treasury would receive from the sale). How expensive can it be to repair a door? It can't be that much. You should do it." But when our director of investment
operations was finally reached and said, "No, we are not going to do that because we are trying to safeguard taxpayer's money by minimizing expenses. Just tell the underwriters we will send them a PDF copy of the share certificates, and they will have to close on the basis of that, and we will get them the real share certificates as soon as we can afterwards." When the lawyers said they didn't think the Hong Kong underwriters would accept that, the director replied, "Just tell them that is their only option. We are the U.S. Treasury, and you have to trust us on this."

Everybody took a deep breath and went back to the underwriters, explained the plan, and said, "We're the U.S. Treasury and you'll have to trust us." And the underwriters said, "Okay." They did not really have a choice. That was one of the more challenging, but also humorous moments of the winddown.

**YPFS: The Dodd Frank Act...**

**Massad:**

Dodd Frank was definitely very effective. I think it addressed a lot of the gaps and problems in our regulatory framework that the crisis revealed. In particular, it strengthened our prudential regulation of banks by requiring liquidity measures, stronger capital measures, stress tests, and other measures. It created a framework for the regulation of derivatives, which I, then at the Commodity Futures Trading Commission (CFTC) led the effort to implement. It created the (Consumer Financial Protection Bureau (CFPB). It addressed some other problems in our bank regulatory structure by consolidating agencies a little bit, it created resolution authority, which we did not have before, for non-bank financial institutions, and it created the Financial Stability Oversight Council.

It also gave the Federal Reserve certain additional powers to regulate institutions deemed systemically important by the Financial Stability Oversight Council (FSOC). Those are just some of the things it did. So, it was extremely important, and the results are apparent in our current situation because our financial system was much stronger going into this pandemic. I was, as I said, particularly involved in the derivatives reforms. We did not have a framework for regulating over-the-counter swaps. We had a framework for regulating futures, which are similar economically to swaps, and that framework worked very well. We did not have significant problems in the futures industry during the crisis.

Dodd Frank created a framework for the regulation of derivatives, which is in part built on the framework we have had in place for decades for futures. It had four basic elements. The first was requiring central clearing of standardized swaps. The second was requiring that standardized swaps be traded on regulated platforms. The third was requiring that there be capital,
margin, and other requirements on swap dealers. Finally, the fourth was requiring reporting of swap transactions to increase transparency. All of those were very important.

The CFTC led the effort to implement those, starting with my predecessor as chairman and then me. They are in place today. Fortunately, my Republican successors as chairs have not tried to dismantle that and, on the contrary, I think it has won widespread acceptance across the industry. So that has all been very important.

I think there are things we did not do in Dodd-Frank that we needed to do. I do not think we did enough to address the risks posed by non-bank financial institutions, which represent a large part of the financial sector. We still do not have an adequate framework for addressing those and I think the pandemic revealed some of those gaps. Once again, in the pandemic, there was a situation where there was almost a run on money market funds. It was because the Fed stepped in to buy Treasuries and backstop those markets that it did not occur.

The non-bank sector still relies too much on short term debt that is runnable, in other words that could easily be discontinued in a crisis. So, there are still some issues we need to deal with.

Although the Financial Stability Oversight Council has been useful, I do not think it has been as useful as some of us hoped. It has been useful in that it simply brings regulators together and I think that helps establish relationships that will make it possible to work better, cooperate. Sometimes in our governmental structure you could have people in different agencies who do not work well together, even if they are each individually qualified, and that is a problem.

The last four years have shown that the FSOC is limited in its powers. The Trump administration has basically not only not used it, but I think really limited its role, and that is unfortunate.

**YPFS:** You said that the non-bank sector still relies too much on short term debt. Would it be possible to fix it?

**Massad:** Sure. Again, we did that with the bank sector. We now have a variety of liquidity requirements that address that concern. However, for non-bank financial institutions, we do not really have that type of framework. The big challenge with financial regulation is that the financial system constantly evolves and constantly innovates, and that innovation often takes place at what I would call the edge of the regulatory framework. Sometimes it takes place in order to avoid or minimize the effects of regulation.

The growth of the non-bank financial sector, meaning securities firms, investment banking firms, hedge funds, and other asset managers, over the
last four or five decades has been enormous. We used to have a financial sector
that was largely financed by bank deposits. That is no longer the case. Bank
deposits are still significant, but they represent less than a majority of the
funding.

Massad: That was one of the big problems in the crisis: that we had non-bank financial
institutions which experienced runs. Bear Stearns was first, of course. I think
we have not addressed that issue sufficiently.

YPFS: How do you see the effects or long-term results?

Massad: Overall, the response to the 2008-2009 financial crisis was extremely effective.
We stopped the panic, we recapitalized the system, and we did that without
the government losing any money. The TARP investments made money
overall. We invested $426.4 billion and made a profit of about $20 billion on
that.

We spent additional money (about $30 billion) on housing modifications that
was never meant to be returned. The Fed also realized a profit on many of its
actions. Now, profit was not the goal; the goal was, obviously, to stabilize the
system and prevent the recession from being even worse than it was. However, the fact that we acted with overwhelming force, very quickly, was
one of the reasons why it also meant that we did not lose money.

We then strengthened the regulatory framework in order to strengthen the
financial system. All of that gave us a stronger, much, much stronger financial
system going into the pandemic. Where we fell short in the response to the
financial crisis was not doing enough to alleviate the suffering that it caused.
As I said earlier, that was not something we could do through the Fed or the
TARP program, because it required fiscal policy instead. The Administration
was not able to do as much of that as would have been valuable, because of
Republican opposition to that.

Those are important lessons. When you look at the pandemic, first of all, it is a
very different situation. In 2008-2009, it was a financial crisis that caused a
very bad recession. We fixed that crisis by aggressive methods to recapitalize
the system and provide broad base guarantees. Those actions stopped the
panic, they gradually led to the private markets being willing to put private
capital back into the system, and those things also gave us time to restructure
institutions that were in severe trouble.

The situation we are in today is a public health crisis that has caused a general
recession. That could lead to a financial crisis, if we don’t manage it properly.
I think what the Federal Reserve and the Treasury have done to prevent that
has been very helpful in avoiding that risk. The Fed has reactivated a lot of the
facilities that were created in the 2008-2009 crisis, to provide liquidity in
financial markets and to provide backstops to markets. Again, some of the very same facilities that we used then.

They have added to those, they have done more. That has calmed the markets and it prevented the situation that we had in March of this year (2020) from escalating into a financial crisis. The Treasury market was facing severe stress, there were a lot of sales of Treasuries for various reasons. Hedge funds needed to unwind some complicated trades, and there was a general flight to cash. The Fed stepped in and started buying huge amounts of Treasuries. They provided other backstops, both for commercial paper and the debt markets. They started buying corporate bonds even and they tried to provide credit to mainstream institutions.

All of that stopped the panic on Wall Street. But that is very different from 2008-2009, because those actions don’t cure the underlying crisis, which is a public health crisis. The risk of a financial crisis in the pandemic is just a product or a symptom of the underlying problem, or the real problem, which is the public health crisis. Until you fix that, until you manage that better than we have, there is a risk. That public health crisis has caused a very severe recession, and this recession has been particularly hard for the most vulnerable, for those on the lower rungs of the income ladder, for frontline workers, for service workers, for people with minimal or no savings, and obviously for the unemployed. It has been particularly difficult for them.

I think what Congress decided to do in March with the CARES Act was very important, providing direct relief to people, but we need to do more of that. At this time that we are talking, Congress and the President still seem unable to reach an agreement on that. This is a crisis where white-collar workers have been able, by and large, to continue their jobs, to Zoom into their jobs if you will, get their goods online, shop from home... So, it has not been as disruptive for them as some of those people who must show up at a physical location to work, who have to interact with other people.

Now, also because of what the Federal Reserve has done to backstop financial markets, those of us with savings and investments largely have not suffered declines in wealth. However, most Americans, or a lot of Americans, do not have enough to cover a $400 emergency expense. Those people are really getting hurt by this crisis. What we have needed is better management of the crisis. We needed a World War II-type mobilization by the government, where we make sure that private industry is producing all the masks and other PPE, tests, respirators, and ventilators, and so forth.

Massad: That did not really happen. I once made the analogy that, imagine when Pearl Harbor happened, if President Roosevelt had gotten on the radio and said, "This is terrible, I’m sending some money to Hawaii to rebuild the harbor. Thank you very much.” And then people would have said, "Wait, is that all..."
you're going to do? Don't we have to mobilize to fight this? Don't we have to produce aircraft and tanks and ships?" We had a military at the time of the start of World War II that was smaller than Belgium's, it was 17th in the world.

Massad: If he had said, "Well, I'm just going to leave that up to the states," that would have been crazy. Yet, that is sort of what happened here. We have a president who just did not come up with a plan to lead the nation in fighting the pandemic, and as a result it has been very hard. It is not to say that you can stop it, but you can manage it better, I think you could alleviate the suffering a lot better.

YPFS: How do you respond to the people claiming that the government just helped Wall Street and not Main Street?

Massad: What we did was critical for Main Street, the economy would have been in an even worse recession. However, the government did not do enough to help folks on Main Street directly. You can think of it like the person who had a heart attack and triple bypass surgery, blood transfusions were required to keep the body alive. That is what we did. The financial system is kind of like the circulatory system for the economy. The economy dies if it does not work.

So, we did that through TARP and the Fed programs and so forth, but the government did not do enough to deal with the side effects of the heart attack and that hospitalization if you will. We saved the patient, but the government did not do enough for his or her overall health or for the children that depended on that person. We should have had, as I said, more direct assistance through fiscal policy to folks on Main Street. I think that is the best way of looking at it.

YPFS: Right now, the government did at least send money to folks on Main Street, directly to their mailboxes. Do you find that this is enough, or even sustainable? If this crisis keeps going, how many times can the government do this?

Massad: It is not enough, and it is necessary because the alternatives are worse. When we sent money to people, $1200 checks, a lot of that was then spent because people needed to spend it, to buy groceries, to pay their bills, to pay their rent, etc. That money helps stimulate the economy and helps prevent the recession from being so bad. In addition to the fact, obviously it alleviates the suffering that people who are on the lower rungs of the income ladder would otherwise experience.

Yes, it increases government debt, and we will have to deal with that over the long-term, but we can deal with that, particularly if interest rates are lower and are likely to remain low for quite some time. We will be in a better position to do that the sooner we can get out of this. So, the direct financial assistance
to people is critical, but again, it is dealing with the symptoms of the problem. You have to have a better plan to manage and stop the pandemic.

Supporting vaccine research and development I think is terrific, I am glad the government has been aggressive in doing that, but that is still going to take a while before we have a vaccine, if we have one. We will eventually get one, but we may be experiencing many months like this before it is widely available. So, you have got to have a better strategy for managing the pandemic so that as much of the economy as possible can reopen, so schools can reopen. That is not only important for the education of our kids, it is important so that those people with young children, in particular, can more easily go to work, whether they are working from home or leaving the house. Some people said, "Well, we're incentivizing people not to work." The reason it was done as just a lump sum, the same for everyone, was it could be done faster that way. If you try to calibrate it so that people get different amounts, it is just harder, it takes longer to do.

With unemployment as high as it is, most of the research I have seen says that those payments are not creating a significant disincentive to work. One of the other things though, that this has revealed, is that it took us a long time just to get the money to people, because we have an antiquated payment system. The Treasury did direct deposit where it could, but it sent out a lot of checks and it sent out a lot of debit cards. Even once those checks were printed and got to people, that money is not immediately available for a lot of people. The bank takes three or four days to make it available. So, people who were suddenly thrown out of jobs but had bills to pay, groceries to buy, rent to pay, and had to wait longer than they should have to get money. That is because we did not have a good system for getting payments to people quickly and we do not have a real-time payment system which other countries do have. So, the crisis has revealed the deficiencies in our payment system.

YPFS: So crypto assets or digital currencies, even Libra, or I think the Chinese are coming up with something, DCEP?

Massad: Yes. Yes, correct.

YPFS: Are they systemic risks?

Massad: So, what are the systemic risks with respect to crypto assets, potentially central bank digital assets? I would step back for a moment. First of all, this is a very exciting, interesting area of financial innovation and, like many financial innovations, it is creating products and even institutions that do not fit neatly into our existing financial regulatory system. Our system is organized around functional lines or product lines; we have bank regulators, we have securities regulators, we have derivatives regulators.
What are crypto assets? Well, are they securities, are they derivatives? Are they something else? The answer is, yes, they can be all of those, depending on the form. When we started to see development in this area, it was apparent that our financial regulatory system would be challenged in dealing with these. I was at the CFTC when Bitcoin first started gaining popularity. I would say it was the beginning of 2014, shortly after I took office, we declared Bitcoin and other cryptocurrencies to be commodities subject to the commodities laws.

That was because they were being used in derivatives, and anything used in a derivative is considered a commodity. That gave us regulatory power over those cryptocurrency derivatives. We then took some actions with respect to Bitcoin swaps, but we did not have jurisdiction generally over Bitcoin or crypto assets. We did not have any jurisdiction over the cash market, except very, very limited situations involving retail fraud and certain types of transactions. It is really a very, very, very narrow slice of that market.

Similarly, the SEC did not have full jurisdiction. The SEC was able to take action when it came to what we call initial coin offerings that are like securities offerings, if the token being offered can be classified as a security. But many are not, and they also did not have any jurisdiction over the cash market for crypto assets that are not securities. So, there have been a lot of problems in those markets with integrity of trading, with fraud and so forth. But are those systemic risks? I would say today they are not because the sector isn’t that big; but they have the potential to become more significant. And they do pose risks to investors at large, as well as society at large. For investors there is a lot of fraud and manipulation, there is a lack of integrity in trading, there is a lack of transparency. The institutions that exchange and trade these things are not subject to a regulatory framework, so there are lots of issues there.

For society at large, meaning even if you are not investing in these things, do they pose risks? And I would say yes, because even if they are too small to create systemic financial risks, they are being used for illicit finance, such as black-market finance and for ransomware, which is a big problem. They also pose some cyber security risks, because the institutions that are dealing in these products and are providing the exchanges to trade these products, are not subject to the same cybersecurity standards that our banks, our securities exchanges and our futures exchanges are subject to. We have seen a lot of cyber security issues, hacks, other problems at these institutions.

The danger is that those might cause collateral damage in other parts of the financial system. That is one of the things I worry about: You can have some kind of cyber-attack on a crypto institution that then has collateral effects elsewhere, because we have seen cyber-attacks create much boarder collateral damage than maybe even intended. That is why I think we need to tighten the framework for the regulation on these things.
Now, when it comes to central bank digital currencies, that is kind of a variation, like saying "Can we have a sovereign currency like the Dollar and like the Pound, represented by a digital asset?" There are lots and lots of work going on in that regard by central banks. China is now testing one.

There are issues both ways, they pose potential benefits in terms of speed and efficiency of payments. There are some arguments that maybe they can be useful in broadening access to the financial system. However, they also, depending on the design, can create risks of weakening our commercial banking system. They can create risks of what we call disintermediating the banks, because people might pull their money out of banks under certain Central Bank Digital Currency (CBDC) designs.

That could have adverse effects on credit creation and services, on financial stability. So that is why I think our Fed is looking at these issues, but it is not yet moving to create one; we will have to wait and see. The proposals like Libra by Facebook are very interesting; the original proposal had a lot of flaws in it, the revised proposal addressed many of those flaws. As [Chairman] Jerome Powell of the Fed said, the announcement of that proposal “lit a fire,” his words, under central banks; maybe they really have to start looking at that central bank digital currency, because you might have these private currencies.

I have been looking at things like Libra and studying it pretty closely. I hope that we can come up with a set of regulations, not just in this country but in other countries where it would operate. That would address the risks that it poses and also that would deal with the issues about a large technology company getting into financial services. We have not really addressed that issue yet and there are lots of issues posed by that: privacy issues, use of data and so forth. We need a framework to deal with those regardless of whether Libra moves forward.

However, assuming that we can deal with those issues, I think something like Libra could be beneficial. It will not replace the Dollar or any other currency, but it may bring some efficiencies to the payment system and may bring some beneficial competition in payments.

YPFS: One of the challenges, it seems to me, in regulating this, is the internationality of such a currency, that every country could want something different. Do you see those differences being negotiable?

Massad: It is a challenge, and it is a challenge generally for financial regulation. We live in a global economy where we have financial intuitions that transcend or that operate across international borders, and we have financial markets that operate across international borders, but we still have financial regulations based on national governments.
We have certain international institutions that have played a key role in trying to harmonize regulation, and bring regulators together, such as the Financial Stability Board. There is also International Organization of Securities Commissions (IOSCO) that brings securities and derivatives regulators together. However, it still is a challenge. With Libra, the association that will govern it is located in Switzerland, so it has applied to the Swiss regulator to be its primary regulator. It is reaching out to regulators in other countries, and so there is a lot of conversation going on about how to work together.

We will have to see how well regulators in different countries can in fact come together and cooperate in creating a framework for something like Libra. In banking regulation, we have had the Basel Committee now for decades. It has helped standardize some key requirements for the banks, such as capital requirements. That was very important. Coming out of the crisis, the capital requirements were not adequate, as we all realized, but at least we had a history of international cooperation among bank regulators in developing capital standards that could be built on coming out of the crisis.

Contrast that with derivatives regulation, where there was no regulation anywhere. Several nations moved to implement some principles that the G20 leaders agreed to, but they did that in different ways, and then there were a lot of challenges trying to organize those regulations that we are still working through. I think we made some good progress. That was one of the priorities I had at the CFTC, but it was hard because we did not have the history of regulation, or of cooperation among regulators, that existed in the bank sector.

It is a similar problem with crypto assets: you may have some jurisdictions thinking to themselves, "We want to attract this business, we want to be the technology leader." That might lead them to have lower standards, which would be unfortunate, even without that problem, just working out common approaches to regulation and it can be very, very challenging.

YPFS: **What do you see as possible systemic risks, besides the crypto currency or other digital currencies?**

Massad: At the moment, obviously the potential effects of the pandemic... If the recession goes on for a long time... As the recession goes on, we are going to see more and more businesses fail, unless we do a better job of managing the pandemic so that businesses can operate. If more businesses fail, that puts more pressure on our financial institutions. This is something I know regulators are watching very closely.

That is number one. Number two would be, to me, the biggest risk to our system today is inequality, just because it is so great. I do not think we are addressing it. The gaps in wealth are very large, and in some ways things that the Fed has done to stabilize the markets during the pandemic (and during the
financial crisis) have helped those people with assets; they do not help everybody else as much. I just worry about the long-term health of the country because of that challenge.

I would also say that the non-bank financial sector is not subject to sufficient oversight. I think the risks of having institutions getting into trouble and experiencing a run can then cause greater problems.

Further, I would not call this a systemic risk, but I think it is something that we have not done enough to understand: The fact that our securities and derivatives markets depend more and more on automated strategies. Automated trading links markets and can cause dramatic swings in trading. You could have an event that triggers a little bit of a move, and because of automated trading, it is amplified very quickly. We do not live in a world where we have market makers that represent people actually taking the phone calls and making decisions. We live in a world where trading is much more dependent on algorithms.

I do not think we really understand enough about the potential risks that that poses. Again, I would not call those systemic risks, but it is the fact that automated trading strategies can amplify things very quickly. I do not think, from a regulatory standpoint, we are where we should be in terms of understanding that and in terms of having the data, we need to analyze it. So, I am concerned about that.