SPEECHES & TESTIMONY

- **Speech of Commissioner Sharon Y. Bowen Before the 2017 Brodsky Family Northwestern JD-MBA Lecture Series**

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The Undercurrents of Disruption: An Overview of the Trends Causing Changes to our Markets and Societies and How We Can Respond to them

I. Introduction

Good evening, and thank you for that wonderful introduction. It's a pleasure to return here to these halls where I spent so much time studying and preparing for my transition into the workforce. Lincoln Hall is steeped in the tradition of preparing the best legal minds. The excellent education and strong sense of community and friendships forged here, have encouraged and emboldened each person who has sat in your very seat, to represent the best of our own profession and society. So I am particularly humbled to deliver the Brodsky Lecture this evening.

I also want to thank the Brodsky family for acknowledging the unique perspective that an education in law and business provides in creating a platform for one to launch her budding career. I also want to acknowledge the Deans of both the law school and business school for recognizing and promoting the significance of an education that combines the best experiences from both schools and disciplines.

For those of you who are currently law students, business students, or if you're like me and did not want to decide on one versus the other, or both, let me stress this one point at the start: as everyone has probably told you, your career, whether in government or the private sector, will feel very different than school does. But the lessons that you learn here, from the analytical skills and knowledge you obtain, to learning how to work in teams or how to influence the unique communities inside and outside of these halls, will prove invaluable to you in the workforce.

Since leaving Northwestern a little while ago, I have had, believe it or not, only three full-time jobs. I was an associate for several years at Davis Polk & Wardwell in New York, and then an associate and partner at Latham & Watkins in New York. In 2014, I was nominated by President Obama and confirmed by the Senate to serve as a Commissioner at the Commodity Futures Trading Commission, which is the market regulator for the approximately $430 trillion futures and swaps markets.[1] It has been a privilege for me to serve in this role, and I am grateful to President Obama for both appointing me to this position and to my previous position, while at Latham, as Vice Chair of the Securities Investor Protection Corporation.

I've been a Commissioner for nearly three years, and while I have a little while longer left in my term, I recognize that I'm closer to the end of my tenure than the beginning. More

importantly, while my job remains the same, the world has changed around it. When I first became a Commissioner, it was with the expectation that the CFTC would continue its mission, established by long-standing laws and reaffirmed under the Dodd-Frank Wall Street Reform and Consumer Protection Act, to more aggressively regulate the markets, in the hopes of protecting investors and warding off another financial crisis.

As we all know, however, the mood in Washington generally has shifted, with the election of newly-inaugurated President Donald Trump appearing to usher in discussions of deregulation. There is talk of undoing specific Dodd-Frank rules, as well as a myriad of other regulations across the government. In fact, during the recent campaign, President Trump even called for Dodd-Frank itself to be repealed.2 Now, I won't make a prediction about whether all or some of these things will happen – people making predictions haven't covered themselves in glory over the last year. I will state that I remain a firm believer in Dodd-Frank and in the mission of the CFTC, and I think it would be short-sighted, even reckless, to repeal these crucial reforms and put the American economy, workers, investors, and everyone else at the risk of repeating the mistakes that brought us the financial crisis. It is my hope that the new Trump Administration comes to appreciate the importance and necessity of strong financial regulation.

Yet, it is clear that we are at a crossroads of substantial change, one that is not limited to America. The last year has seen a host of surprising, even unforeseen events. From Brexit through the impeachment of Brazil's president and now the election of Donald Trump as U.S. President, many previously unexpected events are coming to pass. And with looming major elections in France and Germany and continuing economic growth challenges across much of the world, 2017 looks likely to have its share of surprises and disruptive events as well, with serious potential consequences for our markets, our economy, and even our society.

Given our current moment of transition and many of your impending transitions into the workforce, it only seems appropriate that I'm here tonight to offer my thoughts on the primary trends that may be driving all these unexpected changes. Now, I certainly won't pretend to be able to explain everything going on in the world at present. I think it's safe to say that no one has all the answers. But from my perch at the CFTC, I've been able to observe four disruptive developments that I think are substantially responsible for many recent surprises. Additionally, I want to offer a few thoughts on what regulators, other government officials, and even all of you can do to respond to these disruptive trends.

II. Technology

Although it's a given that any speech or article addressing change must take into account technology, I believe we cannot understand what is happening to our markets without taking a critical look at the technological changes occurring in them. Simply put, our futures markets have experienced a sea change in how they operate over the last few decades. For almost the entirety of the twentieth century, futures trading involved hundreds of men in jackets trading in one large room via hand-signals in small circles, aka

“pits,” in a handful of places, including here in Chicago. While orders could be called in, the trades still were processed in the pit. Indeed, that was the way trading worked, with relatively few changes, into the late 1990s.

Now, however, that world is gone. The vast majority of trading, over 99% of it on one exchange as of 2015, occurs electronically, with orders sent in from around the world as well as from across town.[3] A majority of those trades occur via algorithms, computer processes that are designed to trade automatically in certain parameters. These algorithms can be designed to do simple trades, such as a process to purchase 10,000 barrels of crude oil for delivery in a year when the price drops below $50, to far more complicated strategies, such as to purchase a specific commodity when the price changes by infinitesimal amounts in accordance with various set parameters.[4] If that’s unclear to you, don’t worry, you’re not alone. Much of the development of these algorithms is proprietary, and even regulators don’t yet have a constant eye into every algorithm running in our markets.

To be clear, the move toward algorithmic trading is not inherently a malign force. Thanks to these technologies, trading orders can be fulfilled much more quickly and efficiently, and investors are more consistently able to actually receive the price for a purchase or sale that was offered. But the move to algorithmic trading has been disruptive. Beyond the fact that our markets now operate in ways that we are still in the process of understanding, there have been real human costs as well. The effective end of pit trading does not merely mean that our markets now move faster; it also means that there were a number of people doing middle-class jobs who were at risk of being displaced from their livelihoods. This technological change has been mirrored throughout our economy, with many people finding that prior established career trajectories have been thrown into disarray thanks to technology.

When it comes to the CFTC, steps are being taken to address the impact of technology on our markets. In fact, it’s with the hope of better understanding this market and ensuring that there are reasonable protections against the misuse of algorithms that the CFTC has been working to regulate algorithmic trading for the last few years. While that regulation could not be completed last year, I remain optimistic that it will be finished soon. Similarly, we finished a regulation last year requiring futures and swaps market participants to have adequate cybersecurity safeguards; I supported that rule in part because of concern that weak cybersecurity protections on financial market participants could be open to attack by either a non-state actor or even a hostile foreign government. Given the events of the last few years regarding cybersecurity breaches, I’m already wondering if it’s already time for us to strengthen those requirements.

Yet, all of us also need to consider not just how to regulate technology, but what its impact is having on the people that use that technology. If a new technology is more efficient but results in the destruction of thousands of jobs, that information is worth knowing. It is obviously not the job of regulators to try and block technological change where it is efficient and useful; blocking too many changes regardless of the potential benefits those

changes can bring is a recipe for reduced market vibrancy and general economic stagnation. But forgetting that technological change has an impact on the people displaced by it is dangerous in a different way. If technological change destroys the core of middle-class jobs in the economy, the result will not inherently be that the displaced workers will find new jobs. Instead, it is possible that they may find themselves unable to rebuild their careers, resulting in a chunk of our population to become disaffected and open to questioning the efficacy and even the fundamental fairness of our society. As regulators, but more importantly as citizens, we need to be mindful of the human dimension of these changes and watch for ways to encourage technology while also supporting the people displaced by it.

III. Demographics

It is worth noting that the vast bulk of traders in the twentieth century futures pits here in Chicago were white men. Indeed, the legal profession that I entered into a little while ago was similarly dominated by white men. This brings me to my second trend, which is demographic change. Looking around the room, today, however, I see clear evidence that both finance and the legal profession are the beneficiaries of increased diversity. We have more women in both the law and in finance. We have more people of color in both the law and in finance. And we have more people of different sexual orientations in both the law and in finance. I am, in many ways, evidence of these changes. As a child in southern Virginia, I saw a cross burned on my neighbor's front lawn. Several decades later, I became the first African-American Commissioner of the Commodity Futures Trading Commission. The demographics of our professions, our economy and our country are not what they were fifty years ago, or even fifteen years ago.

I firmly believe that these changes are for the better. After all, diversity isn't some concept that is meant to place a new patina on the same decision-making process. Instead, diversity is important because it's a means of ensuring that many different points of view will be aired prior to a decision and that all good arguments are seriously considered. To quote the findings of one professor from here at Kellogg, "diversity triggered more careful information processing that is absent in homogenous groups."[5] Organizations, communities, and even governments are stronger and deliver better outcomes when their participants have differing views and different backgrounds.

But we need to do more to sell to both industry participants and everyone else in our society the need for that diversity. That means encouraging companies, non-profits, and the government to become more diverse, while also making it more clear that diversity isn't just synonymous with hiring people who are not white men. If we're going to have increased diversity in the futures and swaps world, we need to see increased involvement by both white men who are farmers in the heartland as well as increased involvement of women and non-white men in New York, Chicago, and the Bay Area. Simply put, we need more diversity of every kind.

IV. Economics

Now, perhaps it strikes you as odd that I would stress the need to include farmers in futures trading. Put aside for a minute the fact that a major reason we created these markets was to give farmers a better way of receiving fair and efficient prices for their goods; it is also the case that farmers were, for much of this country's history, the heart of our economy. Today, due to a variety of changes, they are increasingly not given enough consideration when it comes to economic development and market regulation. That brings me to my third trend – economic change. I don't need to tell all of you that our economy and our markets have changed dramatically in the last few decades; those changes are basically self-evident. But I will make two points. First, forty years ago, the swap market basically did not exist.6 Now, it is the CFTC's largest market and one of the most consequential in the world. Meanwhile, the information technology revolution, increased global trade, changes to our workforce, and the opening of new markets to capitalism have radically altered our broader economy as well. The economy you students are entering into is as different from the one I entered as the one I entered was different from the late nineteenth century. In fact, some are saying we are in the midst of a third industrial revolution, with all the tremendous changes to our economy that such a phrase implies. And I agree with that theory – my experience in life and my time as a regulator backs up the idea that we are in the middle of that third industrial revolution.

Beyond this broad structural change, however, there is a second layer of economic change occurring. Simply put, nearly a decade after it occurred, we are not free from the legacy of the financial crisis. To be clear, we have made great strides since the worst of the Great Recession in 2008 and 2009. The number of Americans employed has increased from 134 million in January 2009 to over 145 million as of November 2016.7 Median household income is up from $54,988 in 2009 to $56,516 in 2015.8 The stock markets are overwhelmingly up, with the S&P 500 going from 683 in early March 2009 to over 2100 at the start of November 2016.9 Meanwhile, our financial system is markedly safer than it was in 2008 thanks to the efforts of thousands of hard-working people both in the government and in the non-profit sectors and especially thanks to the passage and implementation of Dodd-Frank.

Yet, it is also true that there are still economic problems challenging this country. Real median household income was lower in 2015 than it was in either 2007 or in 2000. In other words, the median American household feels that it hasn't gotten a raise in a decade and a half. As I discussed earlier, the job makeup of the economy has been in a period of massive change, with many longtime industries, including manufacturing, shrinking. In fact, as of November 2016, there were only 12.2 million manufacturing jobs in America; just 16 years earlier, there were over 17.2 million. That's a drop of nearly 30%, and I think that figure underscores just how profoundly our economy has been changing.10

If one thing is clear from recent events, it's this: the economies of the west have structural issues. Many people do not feel that they are getting a fair deal, and that is a dangerous belief to take root in a society. Now this is not something we U.S. market regulators can fix on our own; improving and enhancing the functioning of our economy is a project that has to involve the entire government, including Congress. But I believe market regulators,

both here in the U.S. and around the world, need to be mindful of how the overall economy is functioning and what effect market regulations are having on the economy. After all, these markets were not created for the elite - they were created for end users as a means of ensuring efficiency and dissemination of the fruits of capitalism. We can and should think about how our rules affect the ordinary investor and consumer, and that must mean wrestling with those questions in more than just a cursory or passing way. Instead, we should really be considering in each rule whether we are democratizing our markets and making them more accessible and fair to consumers and investors.

It's in this spirit of opening up the markets and making them work better for average consumers and investors that I supported the CFTC's effort to release rules on position limits – limits on the amount of excessive speculation that can occur in our futures markets. Although we have not yet been able to complete that rule, I remain a supporter of it and I hope that the Commission, in the near future or a few years off, will complete that rulemaking. Finishing position limits would be a critical step to improving the functioning and fairness of our economy.

V. Institutions

All of the three things mentioned above are hard problems, but not unsolvable. However, that brings me to a fourth trend that makes solving those difficult issues almost seem easy. We have had a sea change in how people see the institutions that make up our society. To put a finer point on it, people are losing faith and trust in many segments of our society. There are many things I could point to as evidence of this loss of faith, but there was one recent poll that I found especially notable. In a December 2016 poll by NBC and the Wall Street Journal, a group of American adults was asked if they had a great deal of confidence in twenty American institutions, including intelligence agencies, the Supreme court, the tech industry, Congress, the media, the financial industry, and even religious leaders and organizations.[11] Despite all the institutions that people were quizzed about in this poll, there were only three institutions that a majority of respondents had a great deal or quite a bit of confidence in: the military, police and law enforcement, and small business.[12] Meanwhile, only 22% of respondents had such substantial faith in the federal government, 19% of respondents had substantial faith in the financial industry, 16% had substantial faith in either Congress or the national news media, and just 15% had substantial faith in large corporations.[13]

Simply put, we have a crisis in our institutions, and that is a crisis for our markets, for our government, and for our society. Fundamentally, each of those things is built around trust. People trust that the markets will work and be fair. People trust that government will be effective and representative. And people trust that the whole of our society is bigger than the sum of its members and that they have a connection with other members of society. When trust in those institutions is diminished, our entire system of commerce and government is in danger, and people may turn away from established groups and figures for leaders in favor of outsiders who threaten to break things up just in the hopes of bringing about change. Needless to say, if people don't have trust in our markets, our

government, and our society, many of the problems I've flagged today might honestly become impossible to solve.

Unfortunately, there are no easy answers as to how we increase trust in institutions. It has taken a long time to degrade trust in our institutions, and it will likely take a long time to fix. But the first step is one that should be obvious: when you're in a hole, stop digging. We need to become more willing to hold people accountable to our rules and regulations, even when that is not easy. If investors and consumers feel that there are two sets of standards, one for the well-connected and one for everyone else, that is a recipe for further destruction of faith in government. The solution is that we have to be willing to be more aggressive in enforcing our rules fairly, including being willing to take individuals and institutions to court rather than just settle with them. Now, the CFTC is an agency whose resources are very limited – we don't have nearly the staff or the budget to do that many court cases while upholding the rest of our mandate. But I think it is incumbent on us to at least try and take more big cases to court, even though it is difficult.

As for the broader economy, I think there is another solution that we need to pursue, namely governance. This is a topic that I've talked about at length throughout my term as Commissioner. Under Dodd-Frank, we are obligated to promulgate a regulation to improve governance at many of our market participants. I am a believer that just about all of a company's culture and record goes to the state of its governance. A company with strong governance – an independent board, a culture of communication, and a culture of following the rules – will run less afoul of the law and be a more profitable and successful enterprise than one with weak governance. I would hope that the CFTC does this rule soon and that, all across America, institutions consider ways that they can improve their own internal governance. We can first rebuild faith in institutions by having our institutions do what they can to show that they are trying to be worthy of Americans' trust, and that starts by improving internal governance.

VI. Conclusion

In conclusion, let me stress again that there are no easy answers to these problems, though fixing a lack of faith in institutions is certainly the most difficult. The events of the last year were not birthed overnight. They were the result of trends reaching back years, decades, or even longer. But to address them, we have to first diagnose them. I hope today has been enlightening, and I fervently hope that someone here today, maybe you, or one of your students or mentees, will develop solutions to address them.

And most importantly, I ask you all to consider government service even now. Now more than ever we need good smart people in government, people willing to make a difference. During my tenure at the CFTC, I have seen so many people make a difference in ways both big and small, and it has only underscored my belief that we need to encourage talented people to seek out public service. When people have the belief that serving in government is a waste of time and can't lead to anything, that itself is exacerbating the trends I have outlined today. But if you are willing to take your time, skills, and energy

into government and try to make things better, you can show your friends and family that government can be a force for progress and improvement, and in that small way can strength people's trust in that institution in particular and in all our institutions in general.

Thank you, and I look forward to our discussion and to hopefully answering your questions.

1 *See* Testimony of Commissioner Sharon Y. Bowen before the U.S. House Committee on Agriculture, Subcommittee on Commodity Exchanges, Energy, and Credit (Apr. 14, 2015), available at http://www.cftc.gov/PressRoom/SpeechesTestimony/opabowen-3.
2 *See* Jeff Cox, "Why It Won't Be Easy for Trump to Repeal Dodd-Frank," CNBC.com (Nov. 21, 2016), available at http://www.cnbc.com/2016/11/21/repeal-dodd-frank-it-wont-be-easy-for-donald-trump-to-end-the-rule.html.
3 Keynote Address by Commissioner Sharon Y. Bowen before ISDA North America Conference, CFTC (Sep. 17, 2015), http://www.cftc.gov/PressRoom/SpeechesTestimony/opabowen-6.
4 Matthew O'Brien, "Everything You Need to Know About High-Frequency Trading: Why the Algobots that Rule Wall Street Are Good – And Why They're Evil, Too," The Atlantic (Apr. 11, 2014), available at http://www.theatlantic.com/business/archive/2014/04/everything-you-need-to-know-about-high-frequency-trading/360411/.
5 "Better Decisions Through Diversity," Kellogg Insight (Oct. 1, 2010), available at http://insight.kellogg.northwestern.edu/article/better_decisions_through_diversity.
6 See, e.g., Richard R. Flavell, "Swaps and Other Derivatives," 2nd Ed. (2010), at 5-6, available at https://books.google.com/books?id=T0XaycMowP4C&printsec=frontcover#v=onepage&q&f=false.
7 Bureau of Labor Statistics, U.S. Department of Labor, All Employees, Thousands, Total Nonfarm, Seasonally Adjusted (CES0000000001), available at https://www.bls.gov/webapps/legacy/cesbtab1.htm.
8 Federal Reserve Bank of St. Louis, Real Median Household Income in the United States (MEHOINUSA672N), available at https://fred.stlouisfed.org/series/MEHOINUSA672N.
9 S&P 500 Index, available at https://www.google.com/search?q=S%26P+500.
10 Bureau of Labor Statistics, U.S. Department of Labor, All Employees, Thousands, Manufacturing, Seasonally Adjusted (CES3000000001), available at https://www.bls.gov/webapps/legacy/cesbtab1.htm.
11 Chuck Todd, Mark Murray, and Carrie Dann, "Why the Lack of Confidence in American Institutions Is so Troubling," NBC News.com (Dec. 21, 2016), available at http://www.nbcnews.com/politics/first-read/why-lack-confidence-american-institutions-so-troubling-n698626.
12 *Id.*
13 *Id.*
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