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PURSUING REGULATORY EXCELLENCE: BREXIT, TRUMP, AND BEYOND

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Welcoming Remarks:

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Panel:

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PROCEEDINGS

MR. GAYER: Good morning, everybody. Welcome to our event today on pursuing regulatory excellenc, e co-hosted by the Brookings Center on Regulations and Markets and the Penn Program on Regulation. The Brookings Center is a relatively new endeavor of ours, just started a few months ago. Our goal is to provide insights on and recommendations for regulatory policy through research and analysis and through events like this one.

Today's even is to discuss a new book published by the Brookings Institution Press. You should have seen a little table out front. If you haven't please check it out after the event. The book is called "Achieving Regulatory Excellence" and it offers guidance from experts from around the world on how regulators in all fields of policy can succeed in today's demanding regulatory environment. The book is edited by Cary Coglianese, who's on my right here. Cary is also the Director of the Penn Program on regulation and is the Edward B. Shils Professor of Law at the University of Pennsylvania.

The plan for today is for Cary to lead the panel discussion, so we'll have I think some opening comments and some back and forth. And as with all of our events here, we welcome comments from all of you or questions from all of you, so we're going to leave some time for that as well.

So, again, thank you for being here. And with that I'll turn it over to Cary.

MR. COGLIANESE: Thank you very much, Ted, and thank you to Brookings for hoisting us this morning and to the Brookings Press for publishing the collection of essays that we are here to talk about, the book, "Achieving Regulatory Excellence." That book is a culmination actually of a longer and larger project called The Best in Class Regulator Initiative at the Penn Program on Regulation, which is based out of the University of Pennsylvania Law School. That project started in 2014. It has produced over 35 different papers, reports, and essays about regulatory quality. And as we know, since 2014 regulation has come under some degree of critique, or even some might say assault, by various leaders around the world and various segments of public around the world. In the UK, for example, Boris Johnson and other advocates for Brexit railed against ludicrous regulations. Here in the U.S. President Trump has announced his opposition to "unnecessary regulation" and has taken a number of steps to seek to cut regulatory burdens, whether it's aiming for repeal and replacement of the Affordable Care Act, amendments to the Dodd-Frank Wall Street Reform Act, or the systematic replacement of two regulations

for every new one. We have obviously regulation high on the policy agenda today. But despite the contemporary rhetoric about a regulatory rollback, regulation is not going away. It is and will remain a vital government function. Not only does regulation provide order and stability that's important for a vibrant economy, but it does correct for well recognized market failures. And no matter how much business may rail against the excesses of regulatory burdens, many responsible businesses have already made many investments to come into compliance with regulations and probably would resist rolling back too many rules so that less responsible companies could be off the hook.

And of course there's also going to be new problems that emerge. There's new technologies that are developing, from self-driving cars to distributed sources of energy production to fintech businesses that will raise questions that policy makers will inevitably want to consider for regulations.

So I think the biggest challenge today with regulation is not the simplistic question more or less, rather it's how to regulate well. They key challenge in other words is regulating in a smart way, how to be effective as well as efficient, equitable, and legitimate. The challenge in short is the challenge of regulatory excellence. And at the Penn Program on Regulation we've been pleased to pursue a line of work in this area with the support of a regulator, a provincial regulatory from Canada, the Alberta Energy Regulator, and we thank them for their leadership and support of this project. This book grows out of an invitation we made to over 15 leading scholars and practitioners from around the world in which we ask them each to write about their answer to the same question, what is it that makes a regulator excellent. And each chapter in this book provides an answer. And today I'm very pleased that we have several of the contributors to that book here to talk about their ideas for regulatory excellence, what it means, and most importantly how to achieve it.

So I will introduce the panel members and then we'll proceed to hear some of their ideas about how to achieve regulatory excellence. Writing the forward in the book is Jim Ellis, immediately to my right, who is President and CEO of the Alberta Energy Regulator. He has more than 30 years of experience in the public sector serving not only in his current position as the Chief Regulator for Energy Development in the Province, but also previously as Deputy Minister for the Environment and Energy as well in the Province.

To his right, Shelley Metzenbaum is a Senior Fellow at the Volcker Alliance where she served as the Volcker Alliance's founding President. She also previously served in the Obama administration as Associate Director for Performance and Personnel Management.

To her right we have Dan Esty, who is the Hill House Professor of Environmental Law and Policy at Yale, where he holds appointments at the Yale School of Environment, Law School, and Yale School of Management. He previously served as the head of Connecticut's Department of Energy and Environmental Protection and previously in the U.S. EPA.

To his right, Paul Noe, Vice President for Public Policy for the American Forest & Paper Association. He previously served in government as Counselor to the Administrator for the Office of Information and Regulatory Affairs within OMB in the Bush 2 administration.

And you've already met Ted Gayer who is here from Brookings and he is also a contributor to the book and we're pleased to have him here as well and heading up the regulatory program here at Brookings.

So with this, by way of introductions, I'd like to get underway and ask panel members to share some of their thoughts about regulatory excellence. Jim, can we start with you first, and can you tell us a little bit about the regulatory challenges that you've encountered at the Alberta Energy Regulator and your interest and value you've had from this particular focus on regulatory excellence?

MR. ELLIS: Thanks, Cary, and thanks to all of you for joining us today. I think maybe I'm just going to start by giving you a bit of a background of who we are and where we come from. Just as a bit of background for you, Canada is the fifth largest producer of oil in the world. We have the third largest proven resources next to Saudi Arabia and Venezuela. The vast majority of these resources, about 85 percent of them, are in a sub national province called Alberta and we are the single regulator overseeing that. We're an extremely busy jurisdiction. We have over 185,000 active wells. We have over 270,000 miles of pipeline, we've got tens of thousands of surface infrastructure in our province. It is a very busy jurisdiction. We also regulate all aspects of oil sands development, both mining and drillable oil sands, which is a significant world heavy resource.

A number of years ago the province took a look at competitiveness. They looked at royalties, they looked at taxes, they took a major look at our regulatory system and they found that it was

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opaque, very cumbersome, and needed a major overhaul. Based on that they took the bold step to combine all regulatory agencies under one organization, and that's the AER. We're one of the only regulators in the world that oversees all aspects of hydrocarbon and mineral regulatory oversight. That's everything. We issue all permits and all compliance auditing and all activities, from exploration to production, to transportation, down to the upgraders and the refineries in our province. So a very significant amount. We're the largest sub national oil and gas hydrocarbon regulator in the world. We also oversee all aspects to reclamation and remediation on the back side. So we do the full life cycle of all energy development in the Province.

Early on in our work back -- we started in 2013 -- we developed a four line strategy driving towards our outcome of being a best in class regulator. The first is all about protection; safety and environment is extremely important to us and that's our number one driver. Second of all is effectiveness. This is about designing world leading regulatory practices to do our job better, and we are jurisdictionally piloting new regulatory processes now working with international colleagues. The third is efficiency. This is smart regulations involving certainty as well as a verifiable cost savings. All of our processes have published timelines. And as I said, we do everything. So this is a significant amount of work. This adds critical certainty to the industry.

We also have verifiable savings of close to \$750 million of annual savings. You multiply that by a 40 or 50 year life cycle for this industry, you're talking close to \$40 billion of regulatory savings we found in our system over the last three years. And we found it without causing any issues to individual rights, without any issues of safety, and without any environmental issues. So you can move into this regulatory streamlining very, very effectively and very responsibly.

However, what we found at the end is that without the credibility of our system all of those great things that we're striving to, we won't have the trust, the credibility of our citizen in Alberta, our Canadian citizens, and we are an international market provider. So we're very concerned and aware of what our markets view Canada and Alberta as a responsible development jurisdiction. So we recognized that we needed to be seen as an excellent regulator. And this is why we moved very quickly when we determined that we couldn't actually determine what that was. If we built a model for regulatory excellence and we delivered on it, it wouldn't be accepted by our stakeholders because we developed the

model. So we went to Cary and the University of Pennsylvania's program on regulation, and it is world leading. We went in and asked them to help us. That's what this book is about. And they actually moved through the book and developed a model specific for the Alberta regulatory system. And in that model of excellence there are three main pillars. The first is utmost integrity. This speaks to independence, it speaks to rule of law, but most important to me personally, it speaks to leadership, making tough decisions that are scientifically based and evidence based. That's critical to us. And there's a live example right now, it's being internationally covered, as far as India, it's in China, it's in the EU and Eastern Europe, South America -- I think it's being picked up now. Yesterday the Alberta Energy Regulators shut down one of our major companies, Lexin. This company was a poor performer, it was putting the province at risk, it was putting the reputation of our industry at risk because of their performance. This company owns 1600 wells, 200 pipeline approvals, and hundreds of surface facilities. This is the first time in the history of any energy regulator around the world that we've had to take this major compliance step. It's not done easily, we don't like to do it, but when it's required we will step out and take the difficult steps to make sure that the industry is performing.

The second pillar for us is empathic engagement. The world has changed. Information is moving faster than ever before. Regulators are now working in a world of social media and we're not good at it, we don't like it, but we have to get comfortable with it because that's the world. The information, as I said, is moving so fast. If we don't get into this world and start owning some of this space we are going to be in big trouble and continue to be in trouble. And as I said, this means moving faster than ever before with the inherent risks of that speed. The expectations of our citizens around the world have changed and the expectations are higher than ever before. They want to be involved and they want to be engaged respectfully. Public engagement is actually new to most regulators, especially when it's done correctly. This takes time and deep engagement. It takes a tremendous amount of work, but the back side of this is trust and credibility when you're dealing with very tough issues.

We have recently in the Alberta Energy Regulator stepped out and worked very closely with our indigenous communities. It's an area that we're working hard on. We were involved in a ceremony two weeks ago where the elders of all of our first nation communities and our treaty areas gave us the authority through their ceremony to use what's called circle management decision in our work with

indigenous communities. This is a significant piece and it's not -- it's the first time that any regulator like us has been given this authority to use this method of engagement with our indigenous community.

And the third and final piece is stellar competence. This is about regulators, individual regulators, regulatory agencies, and the systems being trained and exhibiting second to none competence levels. And we announced two weeks ago in Mexico City, the International Center of Regulatory Excellence, which an initiative driven by the AER, but it's an institute designed to bring regulators together in a safe place where we can work and discuss and share best practices. It has an entity for training regulators, which as the chief regulator of a regulator that was under significant pressure three years, four years ago when we did this, we looked around the world and there was no one that we could reach out to for help. This institute is now starting as up and running. Our first partner is the country of Mexico, who is opening up their country to oil and gas international opportunities and we're quite proud of this.

So the world of regulation is tough and there's not a day that goes by that serious decisions are being made, we're working in tough times with, as I said, expectations from stakeholders and others that have never been higher.

And I just wanted to thank you publicly, Cary, for the work that you helped us with because the recommendations and the thoughts from the folks that compiled their work in this book is not only great for energy regulators, but it's great for regulators around the world in all sectors. So it's a great piece of work and thank you very much.

MR. COGLIANESE: Thank you very much, Jim. And obviously editing a book I can only take credit for bringing terrific together and it's great to have so many of you here today on the panel.

So, Shelley, Jim's talking about the tough environment in which regulators find themselves on a day to day basis. So what is it that they need if they are going to achieve excellence?

MS. METZENBAUM: Thank you, Cary. Well, it's an interesting time to be here talking about regulatory excellence in a world where politically deregulation is really at the top of the agenda. At the same time, it's wonderful to be here sitting next to Jim who's demonstrating the importance of regulatory excellence and the huge potential when academia works with practitioners together to advance the state of knowledge, to capture what we already know, and try and move it forward.

So, regulatory excellence, let's be honest, let me just lay out to you sort of three facts as I see them. First is there's really very little political value in talking about good regulation and regulatory excellence. You know, what happens in the political arena is either deregulation or regulatory reform. And that's true whether you're talking republicans or democrats in this town. And so what you're really talking about is trying to push for regulatory excellence at a time when people are actually -- nobody wants to support regulation. They do, however, want to support clean water, safe streets, safe buildings, safe cars. In other words, if we talk outcomes not process people care. That's a challenge. I'll get back to that in a second.

Second truism is that basically no one who's regulated likes being regulated because it adds costs to them. Beyond that they regulators don't actually think that often in a customer friendly way. They don't think about the regulated parties as customers. What's interesting about this reorganization in Canada is it's very focused on a single industry and allows a real relationship to be built with that industry and a distinction between the good guys and the bad guys where the good guys see hey, we benefit if the bad guys are taking on. It helps our industry. But, in fact, it's very hard to have these good relations, especially in emerging industries. But you get multiple layers. You know, Jim talked about consolidating, that's remarkable. And if you're a regulated party you're often dealing with multiple regulators who are not always consistent with one another and, as you have emerging technologies, are inventing along the way but without the resources that the innovators themselves have. So it's hard to make this an easy -- to have excellence evolve.

At the same time we need regulation and we need regulatory excellence. Why do we need regulation? Well, I don't need to talk about it for most of you in the room, but, you know, free markets are great but they only work if you have regulation making sure the markets are fair, that people a have good information, et cetera. You know, they only work if one party making a trade is not able to impose all the costs without -- impose costs on others and get the benefits.

So there's lots of reasons for regulation. I won't go into all the reasons for market and social regulation, assuming you all know them. But we need regulation. And again, as Jim suggests, unless people feel confidence in the regulators we're going to be cutting back on that regulation at the very time that you need regulation. So, bottom line is we need regulation and we need excellence in

regulation. So what are the components of that? Let me suggest four to you.

First one is mission and purpose, clarity of mission and purpose. What is the purpose of the regulation, what is it you're trying to accomplish, that safe, you know, streets or whatever. We've got to be very clear what is it we're trying to accomplish and why.

Second one is measurement and analytics. Once we've decided -- first of all we need measurement to figure out where we ought to focus and how to frame a regulation just the way a business would do in terms of thinking what product line should I get out there, but beyond that once we've taken actions we need to know if they're making a difference. So we need to measure if it's we're trying to reduce the mercury, then we should be measuring whether it's mercury in fish tissues or whatever. We've got to have the measurement and then we've got to analyze the data to figure out is what we're doing working or not.

Third piece, so mission and purpose, you know, what is the objective, measurement and analytics, and we really need to beef up that part in this modern world, in the digital age, we need to beef up our analytic capacity. We've got a lot of lawyers in regulatory agencies, where are the analysts? The third thing is communication. Communication -- and it's two way communication. You talked about meeting with the stakeholders in a deep way. And it's really about making sure people, as the regs come out and hit them, understand why did the regs come out and hit me. What is it we're trying to accomplish? Involving those who are going to be regulated and those who are going to be affected by the regulations. Remember to talk about the safe drinking water. I mean how did Flint, Michigan happen? Remember it not only -- before promulgating, when promulgating the reg but with issuing the permits, when doing the inspections, when taking enforcement actions, as you did, you know, yesterday with your big enforcement. Why is this important?

And going back on the measurement, it's measurement of the outcomes, but it's also of the efficiency, it's also of the fairness, it's also of the, you know, the predictability. You have to be able to measure, okay, do people know how long it's going to take, so those who are being regulated can plan ahead. It's courtesy. Do we have measurement systems that actually give a feedback on wow, people think our folks are really rude. So it's mission and purpose, measurement and analytics, communication. It's not just sending it to the bosses, it's measurement that you're sharing, it's analytics you're sharing, it's

strategies that you're sharing.

And then finally it is capacity. What do I mean by capacity? Well, let me put it in two areas, skill sets and resources. On the skill sets regulation is a complex practice, it's a complex decision making practice, and we need to give our regulators training in that complex decisionmaking. And it can't just be on the job training, it probably needs to happen in the schools, but it has to happen also mid career. This is complex decision making and we need to build people's skills to do that. You know, you're balancing lots of objectives, all of which have validity.

The second piece on that is resources. I have seen very little work over the years that actually says what do we actually need to do to have the capacity to deliver. What's the staffing level we need, what's the IT we need, et cetera. And I've seen very little over the years, and I've been in budget offices and regulatory agencies. That actually gives me a good sense in a way to benchmark with others and push innovation. You know, nowadays we can use remote sensing, but it used to be we had to get inspectors out everywhere. But let's really take a serious look at the resources needed and get that into the decision making process.

So four things, mission and purpose, measurement and analytics, communication, and capacity.

MR. COGLIANESE: Thank you very much, Shelley. Dan, you headed up a regulator. Can you talk about what it's like on the inside? What does it take, what kind of leadership does it take to make a regulator excellent?

MR. ESTY: Cary, thank you for the question and thank you and Ted for organizing our program today.

I just want to start by saying I think the exercise that you've been leading, Cary in particular, of getting us to think systematically about what regulatory excellence looks like, and Jim for prodding Cary into taking up the topic, I think is really important today. And I really salute you for the scheduling of this event because I believe we're on an incredibly important topic and one that in Washington is going to be seen within weeks as critical. Because it turns out you can't in many circumstances deregulate with a stroke of pen. And I think what we're really after is actually not deregulation, it's smart regulation, it's actually understanding the limits and gaps and problems with the

administrative state. And by the way, this is not a new creation, it's 80 years on since we really began to develop the modern administrative process. And by the way, Cary, in the spirit of yours and my academic work, it's 80 years since former Harvard Law School Dean James Landis wrote the great treatise on administrative process -- 80 years ago. So we've been studying administrative practice, and I salute this book as being the latest in that long history of trying to figure out what the right way to do this stuff is.

So let me start by saying I think we have learned that government needs to be more businesslike. Shelley said this a bit, but let me reiterate. You have to have vision and you have to have a commitment to execution. And if you don't know where you're going, you don't have a vision, you're in trouble. And if you think that's enough you're in trouble. You actually have to implement and prove results. And one of the things that I have found in my own academic research is that legitimacy, public acceptance, is in part and in a large part about delivering good results. And I think good results do matter, and again systematically (inaudible) time.

Jim gave you three key items for getting there, Shelley gave you four, I'm going to give you five (laughter), and here they are.

First, I think one of the most important things we've learned after the 20th century of effort, looking at the 21st century dimension of regulatory excellence, is integration. We need to have a systems perspective. And having been an environmental regulator I thought, and I know Jim has had the same experience, you need to bring energy and environment together because so many of the environmental impacts are the flipside of energy policy choices. So I'm a big believer in energy and environment, but for too long energy regulators, environment regulators have not paid attention to what I would call the third E, and that's the economic effects. So you really need to have the costs and the implications of regulation factored in. So I'm a big believer in energy, environment, and the economy as an integrated regulatory package in question.

Second, innovation. If you do the same thing tomorrow that you did yesterday you shouldn't expect different results. Change is essential and this is the most significant finding in social science in the last 25 years. Every business knows this, you cannot stand pat. Circumstances change, you need to change with them or you fall behind. So innovation is critical, fresh perspectives, fresh thinking essential, and yet the single most profound conclusion I came to after my three years recently

running Connecticut's Department of Energy and Environmental Protection is that change is incredibly hard to deliver even when the status quo is plainly broken. So people are stuck with the status quo unless there is tremendous leadership. So leadership and innovation, absolutely essential.

Number three, incentives. People respond, businesses respond, individuals respond to the signals they're given. And I have come to believe that the 20th century regulatory model focused too narrowly and too heavily on what I call red lights, stop signs, telling people what they couldn't do. In fact, the key to success, particularly in the energy and environment domain, is green lights, signaling people what we need them to do, incentivizing investments in energy efficiency, renewable power, investments in environmental infrastructure. So finding a new way to reposition government as not just the say no to bad stuff, but say yes to the good things we need done is an essential element of 21s century regulatory success. So I'm a big believer in adding a structure of green lights to the existing framework of red lights that are out there.

Number four, investment. I just said that it was important. I would tell you my analysis of the shortcomings of 20th century regulation comes down to a small number of things, but on the top of the list is we did not think about where the money would come from to do the things we needed to do. We paid a lot of attention to telling people what they should do, but not asking could they do it, would they do it, would there be capital flowing to the investments needed to make it all happen. So I think there is an absolutely essential shift from the lawyers' perspective on the problem, which is the right rules, right regulations, maybe negotiate a treaty, to asking about what it takes to produce on the ground results that make a difference. And that requires, as Shelley has already indicated, getting beyond the lawyers. And I say that as a lawyer. We can't make the lawyers' mistake again, we need to bring in that broader perspective that says get beyond the rules to the incentives for action, and most critically how do we get capital to flow. And in that regard one of the critical shifts of gears I think towards a regulatory excellence model of the 21st century is that government should understand its role as being de-risking the flow of private capital into the required investments, in clean energy, in environmental infrastructure, in a whole lot of other things. And it turns out there is an emerging set of tools that we maybe can get to in our question and answer time that help facilitate that de-risking of the flow of private capital into what we need to get done.

Finally, implementation. It really is critical that we deliver on the ground changes and results. It's not good enough to count inputs. The budget of the EPA is not the critical thing, it's whether the quality of the air is getting better, whether water is safe, whether we're managing toxic substances in ways that don't create exposure and risk. So managing outcomes not inputs and really demonstrating value from public investments in the activity of regulation is what I think makes for success.

MR. COGLIANESE: Thank you very much, Dan. You know, we've been hearing about three, four, five point plans here, so I guess that

SPEAKER: I think we'll go to six.

MS. METZENBAUM: Go ahead, number six. (Laughter)

MR. COGLIANESE: Paul, does that mean six? Or maybe I could ask you just what do you see is missing here? What's a missing element in regulatory excellence or, you know, a missing element in regulators thinking about their end goal?

MR. NOE: Thank you, Cary. And I really appreciate the opportunity to be here today and to have been a part of this wonderful project and to have had the opportunity to collaborate with so many experts from around the world.

I actually want to make one point, and it's a fundamental one, which is that as important as process is for regulatory excellence, indeed it's often crucial, the touchstone for regulatory excellence should be the substantive outcome. And I hope all of us can agree that the goal of regulations should be enhancing societal well-being. And as someone who has worked in U.S. regulatory policy for decades I think if the fundamental challenge is that the architecture of American administrative law has a void because there's no systematic framework for insuring that regulators balance tradeoffs and do more good than harm.

We're in an interesting time because there's a lot of passion on this issue in Washington, but I think there's a lot of opportunity here. Benefit cost analysis is, despite its limitations, I think the best tool for ensuring that regulations do more good than harm and enhance societal well-being. And while it's not easy, the good news is there's a lot of consensus on this issue. In the U.S. I think it's fair to say in all three branches of government, the Executive Branch, where every president since Ronald Reagan has done this by Executive Order, and the Judicial Branch where the Courts, and especially the Supreme

Court, have illuminated a path for agencies to use benefits cost balancing in a host of statutory programs. In fact, to the extent they ignore that invitation they may be endangering the very programs they want to promote. And I think in Congress it's fair to say that there's a greater interest in this issue than at any time in at least the last 20 years. I myself having worked in the White House Office of Management and Budget, I'm a huge fan of a presidential directive to try to ensure regulation does more good than harm. But I think there's a number of reasons why that system often falls short, and I want to talk about that today.

And I guess I would summarize it by saying that despite these directives that are all actually quite similar, the institutional and political resistance is so strong I think it makes sense for legislatures to elevate this principle into binding law. If you think about the regulators inquiry, it's really threefold. What are the physical consequences of regulation, how do you value those consequences, and what's an appropriate distributional check that's acceptable and preferably optimal? But if you look at each of those steps, there's resistance at every step of the way. Inside government, based on my experience and knowledge, the leading expert is not always in the regulatory agency, but there's no guarantee that the top experts, even within the Executive Branch, are always the ones who are consulted or have their expertise used. That could be for various reasons, including bureaucratic turf issues and other reasons, but that doesn't always happen. When you look broader outside of government there's problems there as well because agency practices may treat information, for example, from the private sector as more biased as experts in other walks of life, whether it's academia, think tanks, NGOs, or government. But I don't see any compelling evidence that supports such a general claim of bias, especially if regulators use good checks on the quality of information that's provided to them, including the replicability of experiments and the transparency of models.

On the valuation step agencies are not bound to follow best practices. OMB has detailed guidance on how to do state of the art cost benefit analysis, but there's no real check in the Courts to ensure that's always followed. And on the distributional waiting issue, well organized interest groups certainly get a voice, a very strong voice often in the regulatory system. But what about the unorganized public, such as low income citizens, ordinary consumers, taxpayers, and workers? The good news is benefit cost analysis should provide a voice for the unorganized because it's about societal well-being.

But there are serious limitations as to how it's used. Often benefit cost analysis is nothing more than an agency's *post hoc* justification for a decision that was made on other grounds. OMB support varies from, you know, who's the president, who's the administrator, the political winds in Washington. And OMB itself is limited in a number of ways. Certainly it has limited staff and the Regulatory Review Office in OMB is a great example of this where it's now at about half the staffing level from when it was created in 1981. And certainly its responsibilities and the volume of regulation has grown dramatically since then.

There's also large volumes of stealth regulation that through agency guidance and other methods that are either partially or entirely outside of OMB's vantage point. And these problems can persist so long as there is no real legal check on how cost benefit analysis is done or how well it's done. There's also political issues here, political dysfunction that also impede the current process. For example, there's interest group dynamics, such as rent seeking by organized groups. And even in the political sense, issues like presidential electoral politics can get in the way to optimal decisions. And there has been an increasing trend in the U.S. of partisan polarization where the President over time is seen as less and less a leader of all the people and more a leader of a political party that might be more in line with the parliamentarian system of government. And if that's the case the incentive is to really focus on the base and not so much the median voter, such as independents or moderates. And there may in fact be little political benefit for the President thinking about the society as a whole. So that is another challenge that I think the use of benefit cost analysis can help overcome and why I think the time has come to make this binding law.

Certainly this is a politically volatile time, not only in the U.S. but in many countries around the world, but I'm an optimist and I think consensus is possible as long as reasonable minds can agree that the goal of regulation is enhancing societal well-being. If there's agreement on that basic point perhaps there can be agreement on elevating a basic principle into binding law that regulation should do more good than harm. As the Clinton administration stated 20 years ago in OMB's first report to Congress on the costs and benefits of regulation, regulations have enormous potential for both good and harm. The only way we know to distinguish between regulations that do good and those that do harm is through a careful assessment of their benefits and costs. Such analysis can be used to redesign harmful regulations or even design good regulations so they have even greater net benefits.

Thank you.

MR. COGLIANESE: Thank you very much, Paul. You now, we've heard a bit about lawyers and the limits of them here. I'm --

MR. GAYER: It's worse because now you turn to an economist.

MR. COGLIANESE: -- really pleased to turn to an economist (laughter). And Ted, you know, you're here at Brookings as a Senior Fellow, Vice President, Director of Economic Studies, you taught at Georgetown, but you're not just someone who has only thought about these things from think tanks or academia. You've served time in government as Deputy Assistant Secretary for Economic Policy, the Department of the Treasury and the Council of Economic Advisors as a Senior Economist, so naturally, yes, we are going to wonder what is the economic perspective here on regulatory excellence. In particular is there anything that you think is central about the faithful consideration of evidence and analysis in the search for regulatory excellence?

MR. GAYER: That's a fun intro. I was scribbling notes, so you're going to get my conflicted soul here because my notes have a little bit of religion, a little bit of psychology, but then to the economics. So I'm going to get to the evidence base, but I want to set up the context because like all things regulatory, it's complex issues.

I first want to thank you for inviting me to be a participant and a contributor to the book. I'm going to confess publicly here, after I accept that I cursed you for a little while (laughter), because boy I had to meet some timelines. And I have to say, and this gets a little bit into the psychology of it, at first as I thought about it I kind of bristled at the question, you know, because I viewed it a little bit like what's the perfect, you know, platonic ideal of a regulator. And, you know, some of the work that I've done, both as a consumer and as a producer, deals with behavioral economics, and this is where the psychology comes in. For those of you who don't know, the short summary of behavioral economics is -- and a lot of psychology -- is, you know, basically we're all a little bit nuts, and we're all systematically nuts in that we like, you know, our lizard brain frequently makes our decisions for us and those frequently, not always, are irrational decisions. And, you know, if we could just engage our prefrontal cortex we'd be a lot smarter. And so we can all think of episodes where we perhaps regret our lizard brain actions. And so I've done this and then some of my contributions to the research, which I've done with Kip Viscusi from

Vanderbilt, was like hey, wait a second, yes it's true, we're all a little bit irrational, a little bit nuts, but so are the regulators. They're people too after all. So, you know, this notion, which is a mischaracterization, I admit, of how you put it of like what's the perfect regulator. Well, the answer is there's no perfect consumer, there's no perfect husband -- god knows (laughter) -- there's no perfect regulator.

So kind of in the spirit of Washington, D.C., I took the question and I answered the question I wanted to answer and I renamed my chapter, instead of regulatory excellence, I renamed it regulatory equilibrium. And so that to me is something that we all strive for, a little equilibrium. Sometimes our lizard brain is right, we've got to act quickly and rationally. Sometimes you've got to be a little more thoughtful, how do we hit the right equilibrium. And here comes the religion. I'm a boring old economist, as you suggested. I've written lots of economic articles, which is like hypothesis, data methods, conclusion, nothing that you'd want to read unless you're an insomniac, but I decided to introduce religion. I don't know where I got this from, but I came upon this quote from a 19th century rabbi and the 19th century rabbi had the recipe for living a good life, and he said you should keep -- this was from scripture, you had two pieces of scripture, one in each pocket. One pocket says I am but dust and ashes and the other pocket says the universe was created for me. And so the equilibrium is knowing when to pull out the right one. So when you're too prideful and too full of yourself you pull out the piece of paper -- like wait a second, you're really just dust and ashes, don't get carried away. And when you're too down and you're too timid and you've kind of given up on anything, what's the use, you pull out the one that says hey, the universe was created for you. So I use this today, this is my religion. I'm not a very religious guy, but I thought it was a nice motivator and that was the motivator for kind of how do we hit this equilibrium. So it's kind of started high minded and then we're going to get down to regulation and get down to the economist in me. So you've got all my personalities on this stage today. (Laughter)

So that was the kind of motivation, that's the equilibrium, and that's how I define kind of the excellent regulator, the regulator in equilibrium. And in particular I focus, as Cary mentioned, on scientific evidence. The regulatory process obviously should and must rely on scientific evidence, right. Under your typical regulation, you know, what are the effects of pollutant X on health. We need to know what that is, we need to know what are the different mechanisms to reduce it, we need to know what the outcomes will be of reducing it. These are empirical questions and they're very difficult questions to grasp

at. And so the excellent regulator must consider the science.

Now the equilibrium, again pull out the other one from your pocket if you get too full of yourself about science, is that science has its limitations. And what are the limitations of science. So I kind of document a few. I'm not going to go through all of them in the chapter -- read the book, I recommend it. On sale outside. (Laughter) One of which is there are empirical scientific questions that are integral to the regulatory process, but there are value judgments that are integral to the regulatory process, but there are value judgments that are integral to the regulatory process, but there are value judgments that are integral to the regulatory process, and the regulator need to consider both, but not conflate them, right, not let your values influence your interpretation of the scientific findings. And likewise as researchers, we need to do the same. And so that is something very difficult. So, you know, climate, what is the effect of CO2 on global warming or climate change, whether it will affect the climate change in these various outcomes, health, economic, you name it. These are very difficult, challenging empirical questions and that you need to answer. Questions of how much do we sacrifice today in order to benefit future generations, you start getting into value judgments. What are our ethical obligations to the next generations? And a lot of the climate debate actually revolves around questions like that, ethically what do we owe the future generations, for example. So there's a whole host of things and I think we need to kind of distinguish them.

A lot of the kind of particular guidance that I give in the chapter for what would make a regulator in equilibrium gets that -- kind of pivots on what Paul said. Paul -- I scribbled his quote, which was benefit cost analysis is the best tool that we can use in the regulatory process. I agree with that, but it is a highly flawed process I think and it's a process that constantly -- such is the nature of equilibrium -- needs work. And in particular I talked about a few things, which is a little bit of a pet peeve of mine when I read any -- and this is usually the fault of the media more than it's the fault of the regulator, but when you read the media and it's basically studies show that, okay, studies find that. And kind of the reactionary in me says well what's that study, is this a good study, is it a bad study, what were the empirical methods that they used and all the rest.

And so what I think is in some sense absent from the regulatory process isn't so much inputs of science, but kind of quality assessments of what are good scientific studies, what are more credible scientific studies and other scientific studies. And that's not to say that you only consider the A1

best, the gold standard is randomized control trials. Where you could do a randomized control trial, by all means we should do it. Those are very high quality studies, they tend to be, they've very limited, they're very costly, and they're very ethically challenged. I'm not going to do an experiment that exposes each of you, you know, randomly selects you for different levels of pollution exposure for the next month and see what happens. That's not something that I would really not advocate, but we need to have an understanding that when we're using these inputs into the regulatory decision making that we are evaluating, okay, this is the most credible study we could find, this one maybe not so good. There are different diagnostics we could use to test whether or not this is a credible study or not, are we looking -- if it's not a randomized control trial is it a quasi experiment. There's different ways of measuring how reliable these studies are. There's a literature around this and I think it's too often absent from the process, which pivots to another thing that I think Paul was referring to, which is transparency. If people aren't invested and trustworthy in that process, that there isn't some sort of a calibration of good versus bad evidence separated from the value judgments, I think people lose faith in the process and I think that kind of undermines everything. And I think, you know, I mentioned psychology, I'm an economist by training, sort of a psychologist by hobby, not in my, you know -- well, in my consumption of it I find psychological studies very interesting. But, you know, right now you may have heard in psychology there's this great debate going on because there's a replication crisis. A lot of my favorite psychological studies, many of which I use in my parenting, turns out they haven't replicated. I still use them because I think they're helpful. One of my favorite ones I've used is, you know, there was this great study where if you have somebody put a pencil in their mouth basically forcing them to smile, then these measures of happiness go up. So it's sort of one of my parenting philosophies like, you know, fake it until you make it a little bit. So you fake a smile and it actually turns -- turns out that study wasn't able to be replicated. You probably all saw the TED Talk on the power pose, which I think is a great talk. That study is having trouble being replicated too.

So again, not an indictment I don't think of psychology or of these question, but I think it's a very kind of narrow view of things of how we have to do kind of a better job of discerning the quality of the evidence that we have before we kind of go willy nilly either towards more regulation or less regulation or more likely poor regulation.

One other thing that happened -- I can't remember the name of the group that did it in their funded studies, but they basically required I think starting in 2000 that all the studies that they're going to fund you basically have to come up with your question and your methods and which outcomes you're going to test before you get the funding, before you can actually do the study. So it's kind of beforehand. So it's separating -- and I've been kind of talking about this for years, I think there's some movement but not enough within the kind of scientific, especially social scientific professions. You know, if you just kind of keep picking outcomes statistically you're going to find some statistically significant effects. And so it's no way to do science, right. If you think the effect of this treatment is going to improve this outcome you should test that and not just say well, didn't do that, let me try another outcome, oh, it didn't do that, let me try another outcome. And sort of fishing. Oops, this one is statistically significant. Well, you know, at a five percent level, five percent in total randomness, it's still going to show up as statistically significant. That's not science, that's not giving you evidence. And so -- I can't remember the name of the group -- they basically changed their requirements and sure enough after they changed it they started getting a lot fewer findings of actual effects on the outcomes. Again, this is another way of saying in this process it gets into the weeds of scientific inquiry as it does to lead to regulatory responses. We need to do a better job I think of evaluating what makes for good credible studies, how can we replicate them, how can we make the data and the methods transparent so that kind of the outside world and the outside experts can approach them.

That's again very much in the weeds, the kind of bigger picture of the world we live in now and it's good I used the word equilibrium. I'm an economist. It helped me bring up a rabbi quote, so I was happy to put it in there. But this is going to be the euphemism for the time, I think we're in disequilibrium these days on many, many different levels, including on the regulatory level. And, you know, you see this with the Brexit vote, I think you see it in the U.S. politics. You see this with a lot of efforts right now, the two for one rule, or what's going on in Congress, and Paul alluded to those various different kind of efforts to what I would say is kind of pull more control from the Executive Branch to empowering the Judiciary or the legislature, and then you didn't mention the REINS Act, but the REINS Act is basically if you're going to do a major regulation it's got to come back to Congress.

So there's lots of kind of at least perception that things are in disequilibrium in the

process and I think politically there's a view of disequilibrium.

I'll just close with one further point on that because it's just kind of cautionary note for me or like a pleading I guess for me, which is the debate and the disequilibrium, and I worried when I wrote the chapter that people would interpret it this way, the debate is very much like we've got too few or too much regulation. And that's not the equilibrium I'm talking about. Everything we're talking about should be how you do more effective regulation. In mu world the bad regulation crowds out good regulation, but there's no kind of pointing from we need better evidence, we need better transparency of that evidence, we need to be better able to assess the quality of that evidence. That does not point to one direction as more or fewer regulations. And I think too often that's the kind of framework. The two for one rule, kind of the motivation for that was basically we got too much, we need fewer. And I don't think that's the proper way to approach it. Some of the other process rules I think are a little bit more thoughtful on kind of how you improve the process and the dynamic to try and get the kind of better evidence to rise to the stop.

So I'll close with that.

MR. COGLIANESE: Well, Ted, your remarks, and obviously your chapter in the book, is just a testament to the value of my persistence in (laughter) having you agree to participate in this book. I mean here we have an economist talking about religious and psychology.

MR. GAYER: We're all in trouble.

MR. COGLIANESE: And really, you know, I think that -- you know, that really raises a point that I think is a nice theme that emerges from all of these comments, and in the book too, regulation often is seen as a very technocratic enterprise where expertise and analysis are the lingua franca. And without denying any of the value to that it also comes down to people. Regulatory excellence I think is dependent upon the excellence of the people entrusted to serve and the degree of faithfulness and seriousness with which they pay attention to good analysis. That's absolutely crucial. And in fact the characteristics that Jim started off with, thinking about regulatory excellence as having three core components, which came from the final report that I prepared for the best in class regulator project, boiled down to the utmost integrity, empathic engagement, and stellar competence. And if you think about those qualities they're not really just limited to excellence in regulation, but an excellent professional, an excellent person is going to have aspects of all three of those virtues as well.

So we are talking about something that's core to the enterprise of humanity as much as a technocratic exercise about regulation.

What I'd like to do now, since there are so many of you here today and so much wisdom up here on the stage, is invite you to ask questions or share comments, not long speeches. But if you have questions just raise your hand and I'll call on you and we'll take things away.

In the front row here. There's a microphone, and if you could introduce yourself.

MR. ROBERTI: My name is Paul Roberti; I'm from Rhode Island. I was a regulator in Rhode Island for about seven years when, Dan, you were in Connecticut. And Dan was a national leader. I served on the Public Utilities Commission. And I just left the National Regulator Conference for Energy Regulators just a couple of blocks over here and delighted to hear this conversation.

And I guess my question follows up on what you said. When you look at the complexity, I thought -- I was in government 25 years before I left for the private sector and work in Mexico right now on the energy reform, but all of the complexity involved in regulation, economics, law, technology, innovation, human psychology, science, and politics, do in fact require incredible competence, stellar individuals, all of which require leadership. Leadership, I always said in government, leadership matters. And the reason I say all of this is that in the world of sports society or the system is very careful about who gets on that field of play, but in the world we're talking about the field of play and who gets on there is determined by the whimsical decision of a politician who won an election and it's random. And that's the question I have, is how do you go about that issue when it's just very random about whether or not we're going to get a Dan Esty in the position or some political connection or some decision by someone in the industry that wants to control what happens in the regulatory climate.

MR. COGLIANESE: So how do we attract the best people? That's the absolutely vital question. Answers, insights? Dan, your name was invoked there.

MR. ESTY: Thank you for kind comments.

MR. GAYER: He accepts. (Laughter)

MR. ESTY: I would say that I guess I think it's a little better than random because I think politicians are called to account for the regulators that they appoint and the decisions that those regulators make and the end results and outcomes that get delivered. I wish there were a tighter

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feedback loop, but I do also believe -- and this is why I saluted Cary at the outset -- that ideas matter, and that what we do want to do is test ideas. And I think one of the themes that's come across through all of the presentations today is that that testing shouldn't be anecdotal, it should be systematic and data driven. And I think we are evolving towards a world where that can be done in a more structured way and where I hope the kind of leadership that you're calling out for is recognized more readily and lifted up and advanced, and frankly that there might be faster feedback loops so that those who are the -- put words in your mouth -- the political hacks who are not systematically delivering good programs, good policies, good outcomes, will be pushed aside more quickly.

MR. COGLIANESE: I think also, and I see a number of younger faces in the audience here today too, it's important to make sure that the talented folks don't go off the field. There's a tendency for good folks today to want to just see how difficult it is, see the operating environment, which one has to function, and say I can go on and do better things. So I hope we can encourage good people to continue to be willing to accept the challenge that good regulation faces.

MS. METZENBAUM: Yes, so my experience with people at the U.S. Environmental Protection Agency and state environmental agencies, U.S. Coast Guard, Federal Emergency Management Administration, you got real quality people in those organizations. They're very smart, they make good decisions. They're hampered by a lot of binds in a lot of cases, and yet they continue to innovate. So I guess I think one of the challenges, especially at the state and local levels, paying people enough and then not beating people up so much. And I think you're right to distinguish between the political appointees and the career appointees. Let's strengthen that career group and invest in retraining. So if I got a bunch of lawyers, and I hope those of you who are young choose to go into government. Right now people want to go into nonprofits, if they care about public service they want to go into social ventures. We need great people in government. The schools can make a difference in that, but I think we need to make it easier to get in. But we also need to continue training people. How do you do empathic engagement? You know, if you're lawyers how do you do that? What is the best social science out there, but how do I apply that, how do I practice that?

So I'm actually astounded at the quality of people who come into the government given how much they're denigrated. By general consensus they're bureaucrats, they're not smart. They're

really smart. You know, not everybody. I can point to lots of problems (laughter), but I mean think about, yeah, FEMA -- you had a great example of FEMA headed by an inept manager and then FEMA headed by several very capable managers who've done remarkably creative innovative things, change the way you process the payments, but also the prevention. You know, there's a city corps for emergency response now that was created so that you could deal with surges. So I think part of the challenge -- and I'd say to all of us, what I worry about listening to this is we're talking about methods, benefit cost analysis, randomized control trials, you need managers, leaders, who know how to tap all of these and build a team of people who can use all these tools.

So like with the Coast Guard that I think 25 years ago realized that the tow boat industry had the highest fatality rates. They could sit down with the tow boat industry and say, huh, we probably -- why is that happening? It's because people are falling overboard. Well, should we regulate higher rails? Maybe, but that's not enough. And they continue to have I think quarterly, maybe semiannual meetings, to say what's the problem, how do we fix it, where do we regulate. But how do we help our workforce change? And I think that's the challenge and now just getting caught up in this benefit cost RCT fight, which is in fact how we implement regulation, certainly at the federal level. And that's the challenge.

MR. COGLIANESE: I think Jim wanted to jump in and then we'll turn to another question.

MR. ELLIS: So very quickly, I agree 100 percent the pivot on all of this is leadership. This is complicated stuff. And if you're listening to this as a simple regulator listening to cost benefit analysis and all of the other things you're moving through, the economic, the social, the environmental side, everything that we're dealing with is complicated stuff. And I agree, you have to compensate people to move into this world. That's very important. But I think that leaders will gravitate to this opportunity. And this is where we've been quite successful in our organization. I'm an ex combat army officer, I've been trained in leadership and I came to this opportunity because I just viewed it as another operational opportunity. It has huge impact for our Province and our country and I'm quite proud to be here. But I'm surrounded by top leaders and we spend a lot of time recruiting the top talent we could. And I'll tell you, I ripped them out of government and I ripped them out of industry, out of universities. Everywhere we could go we took top talent to bring in. And I'll tell you, we've been in the game for four years, the entire top executive, including vice presidents and above, nobody has left the organization because we're

making a difference and that's critically important for young folks, medium age, and old folks like me. We gravitate to opportunities like this. It's tough, it's really tough. But who wouldn't want this opportunity to do the right thing.

Thanks.

MR. COGLIANESE: Great. Okay. In the back there, the woman with the black dress.

MS. MADDOX: Thank you. I'm Bronwen Maddox; I'm the Director of the Institute for Government in London. It's a think tank. I would love to know the panel's views on how to get public support for regulation, particularly for economic arguments. You've referred in the title of this session to the Brexit vote and, indeed, that that did capture quite a lot of public skepticism and professional skepticism about some aspects of European regulation, but to me it goes much, much wider. There's a lot of public skepticism about many kinds of regulation. At the moment in Britain a lot of that is energy and transport, airports and rail and so on. And there's a figure called Andy Haldane, who is the Chief Economist to the Bank of England, to many people something of a heroic figure, who talks about the difficulty of making economic arguments and persuading people that really -- for example, regulators are doing a good job but have made a good case against a wall of what feels like reflexive public skepticism, particularly in the wake of the 2008 crisis, people really not wanting to believe that regulation is working.

Thank you.

MR. COGLIANESE: Economic analysis the answer?

MR. GAYER: That is a fantastic question. It hits me a little bit because, you know, so I head the Economics program here. It's a very frequent internal conversation. I like to think we're in the business of dispassionate expertise and analysis on economic questions, and we are. And then there's the question of well how does that become impactful. And in the current climate how can you best communicate it in a way that resonates and that can actually lead to better policy making. And so it's something we wrestle with all the time. And how do you do it in a way, critically, that doesn't sacrifice the quality of the work.

I don't have an answer. I think that's something that we negotiate all the time. And I would just use it -- in the British example, I won't name names, but I remember right before the Brexit vote speaking to somebody in the British government about so, you know, what are you guys doing in your

end if you're against exit. You know, and he quoted white papers by Treasury and all the rest, and I remember turning to a friend of mind and was like, oh, they're sunk. Like the white paper by an academic or an economist in the Treasury Department is not going to move the debate and they didn't move the -- you know, it was an influential -- in fact we are living I think -- and this is thing we wrestle with -- recently you have to worry that it all will actually have the opposite effect. And so I don't have the answer really. I do think, you know, in the kind of motivation for what I do for a living, wrestling with that question I think is really important.

The idea, which somebody else I think alluded to before, that the value of kind of the truth winning out or the feeling that scientific process is worth doing in and of itself, even if the immediate impacts aren't successful I think are true, but I find it rather difficult. And I'm not giving you an answer to your question directly other than this is something we grapple with all the time.

MR. COGLIANESE: And there were a lot of, to use an American phrase nowadays, alternative facts floating around in the UK at the time. Boris Johnson arguing that EU regulations were prohibiting the recycle of tea bags or keeping kids from blowing up balloons, which were just completely false.

MR. GAYER: Could I just add one thing? Because that reminds me of something else that I think pivots with the comments and the motivation of my comments, which the overarching theme of my comments is we need better scrutiny of science basically, so that we have better scientific studies and that we don't let the less credible ones crowd out the better ones.

And this is just, you know, party of value and partly strategic. I won't name names, there are newspapers out there that I really admire and I think they do very good reporting. And if I just pick the one that I think is best -- I don't know, I'm just going to off the top of my head say, all right, 70 percent of what they write I think is really good, and some fraction of what they write might be an issue that I'm very - and this happens when you're in government, and people can probably speak to this -- an issue that I'm really heavily involved with, and they get it wrong. And it's like totally like you've got to -- this is like bad reporting. And the tendency is, the kind of human nature -- this gets into sort of common interests, behavioral (inaudible) is to remember that, you know, as to be like it's to be a little too dismissive because they got that wrong. And so a lot of what I talked about is a sensitivity to that tendency, which is, you

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know, there's a real downside of putting forward a bad study. And a bad study that motivates regulation is really -- and then can be quite pernicious because then the reaction to that is going to limit the ability of good studies for good regulations to go through. And so again, that's a little bit high level way of doing it, but I think there's something to that. And you cited fake news, and fake news is extremely pernicious. I think one of the reasons you see it's more catching on is because people have had experience of kind of good news outlets or good sources getting something totally wrong and so you can exploit that. God knows people are exploiting that to kind of be dismissive of everything, which I think is a very dangerous path.

MR. COGLIANESE: Paul, do you want to comment on this too?

MR. NOE: I think can't government say to the public you have a right to know? And part of that right to know is you have a right to see how government works or doesn't. We're going to commit ourselves to ensuring our regulation does more good than harm, we're going to lay out the pros and cons we consider in making our decision in a transparent way. You're going to have access to that information. Even when it sometimes is incomplete information, but that's all we have, you're going to have access to that. We'll give you an executive summary of what we consider the pros and cons to make a decision. And our outcome that we're going to bind ourselves is to always do more good than harm.

And then the public and the age of internet can have access to that information and make their judgment as to whether they think the regulators are doing a good job or not.

MR. COGLIANESE: Okay. We've got a number of additional questions in the queue over on this side of the room now.

MR. McKERNAN: Hi, my name is Peter McKernan and I work at the Embassy of Canada. We were very pleased this week to see the successful visit of Prime Minister Trudeau and President Trump. And I'm sure many of you were aware that in the joint statement that the leaders released following their visit they announced a continued commitment to regulatory dialogue. This is something that we've been doing for several years given the extensive integration of the economies and societies between Canada and the U.S.

So my question to the panel is when you're talking about dialogue between regulators who work on the same issue but who report to different political masters, how do you do that most

effectively, what are the best ways to advance that and what are the key benefits for regulatory dialogue?

Thank you.

MR. COGLIANESE: Go ahead, Dan.

MR. ESTY: So I think we face a challenge because when you put out in a press release you're going to have regulatory dialogue, that is the biggest news ever. And sadly -- this is why I salute Cary for making a systematic study of what good regulation looks like. And I think we face an enormous challenge because almost all the dialogue, I think, is on the bad news side of the story. We actually asked a question, what is good regulation and how do we get that attended to and covered, it's a pretty unique project. And I do believe this is a problem and I think it's a problem -- the answer to the question from our colleague in London is well, that you get a systematic bias to criticism and critique and very little effort by the media, frankly very little effort in the political conversation to actually call out what's working and what's good.

And I do think we've got to fix that. I think, Cary, this conversation that we're having today, the broader conversation of the book, is moving us in that direction. But I think it's also a function of media bias, as Ted is suggesting, but of but a political bias. And I think we have a breakdown in our political conversation and we're paying the price for it. And that breakdown, when it comes to regulation, is exactly what you're already heard from several people on the stage here, and it's easy to say let's deregulate. And frankly, you know, that's been the republican answer too much of the time. The democratic answer has been equally almost off the other side saying it's all fine, and neither is true. And we need to get back to the question that was posed early on, what is smart regulation, what is going to work better, what is going to be delivering more systematically better results over time.

And so I think that's the conversation we need to lift up and celebrate and bring in the range of perspectives and hope that we can have that conversation seem more exciting and demonstrate to the public that it does matter.

MR. COGLIANESE: Shelley and then Jim.

MS. METZENBAUM: And then I would just say we need to speak English. So whether we're talking about your question from the UK, or how do I manage across territorial boundaries. What is it we're tiring to be protective of, why? So is it clean water, is it safe drinking water. So I always go to -- I

told you about the tow boat workers where it was reducing the fatality rates for the tow boat workers. And you could get people together and nobody even noticed the regulation was going in because they understood why it had to be there. They didn't fight it and then they adopted practices.

Charles River, I write about it in the book. You know, they set a goal that the Charles River would be swimmable in 10 years. Now, to get there you've got to do enforcement actions, you've got to do permits, they used monitoring data from volunteers and things like that. They brought everybody together to talk about transparency. It was all transparent. What are we trying to accomplish, what do the data tell us, what strategies that we're trying what's working, what's not. They may do integrated experiments into operations to try and get people to be more aware of what they need to do or to change practices. But the way we talk about this, and I think Dan was getting at this, is you talked about regulation -- I actually disagree with you on democratic view. My experience in government at the federal level is the democrats are just as much about regulatory reform, you know, in terms of the way they run the Office of Information and Regulatory Affairs. You've got to start talking about the things people care about, and then you've got to open up the management system so that leaders can actually manage to reduce those problems and you've got to talk to the community so that if in fact the contaminated drinking water is increasing or in fact the Charles River is now swimmable 90 percent of the time compared to 19 percent of the time when they started this. People know that and the reporters actually write about it because you've brought it home in a language that people care about. Make it local, make it understandable and manage it that way to bringing in the skill sets.

MR. COGLIANESE: Jim?

MR. ELLIS: I'll just simply state, again it's complex. And we've got different spheres moving in this regulatory system. You have political, you have policy, you have regulatory. And my advice is, and it continues to be, that you need to bring those parties together individually. So you need to get the regulators together. We actually speak English, right, we have to speak English. We're outcome focused, we're risk based. We understand the system we're trying to do. And if we can bring those experts together in our own regulatory world -- and we don't do that very well quite frankly. We're so busy in our jurisdictions. We're trying to find spaces where we can connect. This is why you'll see this center of excellence, that's what it's designed to do, to find a safe place where we can have these

discussions. Once we're there then there's the influence up. So you're influencing those political decision makers, they will actually listen to smart regulators that are trying to bring in smart regulation. And you need to find those spaces to do that.

And I have to tell you this is an international opportunity, not just between Canada and the United States. We're currently working all over the world, UK, Asia, South America. We're looking for smart regulators that we believe are better than we are and can help us. Once we get to that understanding ten we're influencing into the decision makers t the political level, and I think that's a model that we can strive to here.

Thanks.

MR. COGLIANESE: Excellent. A question on this side, in the front.

MS. RAMIREZ: Hello, my name is Camilla Ramirez and I'm a student at American University. My question has to do -- so the panel, you all have spoken about getting people in the conversation and how it's difficult to get the current politicians in the conversation because they're so stuck to their political beliefs. And so my question is, is who is this book targeted to in order to create a change? And second, depending on the group, how have you made that information accessible? Because going through the executive summary I know if I were to go into my neighborhood and hand that off to someone so they could learn about this book and these ideas that you're putting forth they wouldn't be able to understand and therefore there is an entire group of leaders that are being excluded.

MR. COGLIANESE: Sure. It's a great point. The book is just -- and maybe I'll just field that question -- the book is really just out. So this is our official launch and we are going to be rolling out other efforts to try to get the word out. If you want more digestible versions of what's in the book I would invite you or anyone else to visit the Penn Program on Regulation's website. First of all, not only our website best in class Regulator.org, which has a lot of information, but we also have another website called the Regblog, Regblog.org. And it's a daily publication that we're putting out very short essays about complex regulatory issues in a way that's designed to reach the broader public. So I urge you to go to Regblog.org.

It's an excellent question. And in terms of the audience for this book, it's written and intended for actual practitioners. It's not a scholarly academic book that we want to just gather dust on

the shelf in the library, be read by doctoral students, it's really pitched at the professional who's facing these kind of challenges and looking at this book as a source of advice.

Jim, I don't know if you want to add anything as a member of that target audience.

MR. ELLIS: Right. And I'll tell you again, we're working internationally and regulators not just in the sphere of extractive resource development, it's regulators across the full spectrum. They're all facing, or we're all facing a similar set of issues. The issue of renewables, great, fabulous, everybody wants to get there. There has been significant push back on wind farms, as an example. Because if you think there's nimbyism in oil and gas, you haven't seen anything like nimbyism with a giant windmill close to your property. It's the same issues. They're facing political issues, they're facing stakeholder issues they're facing the same issues that we all are, and this book actually gets to the fact. You read through it. Like I said, I'm just a simple soldier, when I read through this and I started talking to all of these folks, it actually was resonating to me. And, you know, Shelley's point about bringing the academic work, bringing the political world, bringing the regulatory world together, that's the answer and this is what this book is trying to do.

So as a practitioner it's starting to become a bit of a bible for us right now. And I will tell you the regulator around the world are picking this up right now because there's nothing like it. The only request I have is I think it needs to go into Spanish quickly because of the western hemisphere. And Ukraine, Poland, the Middle East, they're all looking through this advice right now. So, it's not only timely in the United States because it's a topic of regulation and regulatory excellence and what's going on here, but it's internationally focused and so it's a great piece of work.

MR. COGLIANESE: I want to take one more question in the -- toward the back there, sitting down. Wait for the microphone a moment.

MR. LISERSON: Billy Liserson from BL Insights. I'm a scientist. I spent a couple of years as a scientist and technology policy fellow at the Performance Improvement Council and then the National Institute of Justice, so I have some experience in performance, in management, and some in forensic science and trying to put science into practice.

I appreciate your discussion. You've touched on the fact that there are many lawyers up there and that a lot of what you do is based on science and the need to move science into the policy

sphere. And I just wonder how you might envision doing a better job of that or how do encourage more engagement with scientists at the level you're at. I don't know that there's anyone who doesn't deserve to be up there on the panel, but maybe having scientists up there might be a good thing to add to your --

MR. COGLIANESE: It's a great question and among the entirety of the authors in the book we do have scientists. We had actually a discussion around the book in Philadelphia yesterday and Adam Finkel, the Executive Director of the Penn Program on Regulation is a risk scientist, a toxicologist. So we very much think that that's an important equation here. Law, science, politics to be sure, management, measurement, all of these are critical ingredients to regulatory excellence.

I want to actually in the interests of seeing the clock here wrap things up by thanking our panelists and encouraging all of you to take a look at the book and the rich diversity of views and academic perspectives that nevertheless converge on many common themes and issues across their perspectives and notwithstanding the fact that they're coming from around the world.

So I would like to encourage you to take a look at the book if you didn't get a chance to see it on your way in. I do think some of the themes and issues that have emerged here in our question and answer and in our opening comments are really important to keep in mind. One that I'm left with here is that success by regulators. Regulatory excellence is largely unrecognized and unappreciated. It happens all the time when we have airplanes that don't crash and nuclear reactors that don't melt down. And we have banks that aren't failing. Something is working, something is working about the regulatory system, but when it's working we don't notice it nearly as much as we do when it fails. And that is a reality to be sure.

I think the other reality here is that the world is changing. You've heard here how complex regulation is and how hard it is. It's not only technically hard, but it's also difficult managerially to lead these organizations well and it's difficult because of the contentious political climate in which regulators around the world are finding themselves.

My bottom line and my message and my sincere appreciation to the panel members, to the Alberta Energy Regulator for sponsoring the project, and to Brookings for publishing the book, is that this is a time when regulators need to up their game.

We've had in the private sector for decades attention to quality management; we've seen

attention to high quality management and performance in the medical fields. This is the first book systematically to take a look at and think seriously about quality management and leadership in the regulatory realm. The world is depending upon that.

I want to thank our panel members and thank all of you for your interest and time here today. (Applause)

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