

## TRANSCRIPT

### Environmental Insights

**Guest:** Billy Pizer

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- Billy Pizer: In some sense we're now at a place after Paris where everything is a little bit lower stakes, in a sense, because we have the framework in place. And everything now is simply moving that framework along to the next step.
- Rob Stavins: Welcome to [Environmental Insights](#), a podcast from the [Harvard Environmental Economics Program](#). I'm your host, Rob Stavins, a professor here at the [Harvard Kennedy School](#) and director of the program. With the [27th Conference of the Parties, COP27 of the United Nations Framework Convention on Climate Change](#) having recently concluded in Sharm El Sheik, Egypt, we now have an opportunity to reflect on what happened there and really assess the process and the outcome. For that and much more, we're very fortunate to have with us today a leading environmental economist with great expertise in climate change policy, both international and domestic policy. And I'm referring to [Billy Pizer](#), the Vice President for Research and Policy Engagement at [Resources for the Future](#), the think tank based in Washington DC. I'm pleased to say that I've known Billy for some 30 years since his time as a graduate student at Harvard. So welcome, Billy, to Environmental Insights.
- Billy Pizer: Thanks, Rob.
- Rob Stavins: So, in a few minutes, again, like I said, I'm eager to hear your reflections and assessment of what happened at this year's climate negotiations and the associated festivities at [COP27](#). But first let's go back to how you came to be where you are. Our listeners always are interested in this. So where'd you grow up?
- Billy Pizer: I grew up in North Carolina. In Raleigh, North Carolina. I'm a Tar Heel.
- Rob Stavins: And does that mean primary school as well as high school there?
- Billy Pizer: Primary school, high school, and even college. I went to the University of North Carolina at Chapel Hill.
- Rob Stavins: Where you got a bachelor's degree in physics.
- Billy Pizer: That's right. That's right. I did not immediately find economics.

Rob Stavins: So how did you emerge from physics to then going on to graduate work, masters, and PhD in economics at Harvard? What was the chain that took you there?

Billy Pizer: I did take Introductory Economics either my first or maybe second semester at Chapel Hill. And I remember thinking to myself how cool economics was because it used math to represent human behavior, and that was very appealing to me because I really liked math. And so I kept taking economics courses on and off throughout my undergraduate career. And when I was thinking about what to do after college, this may not have been a great realization, but I kind of felt like the cool stuff in physics had been done. I don't know if I'd say that still. And meanwhile it seemed like there were a lot of really important questions in economics that had yet to be answered. So as I started thinking about what I wanted to do after college, I really decided I wanted to go into economics. I should also say I did a summer internship at the World Bank that was formative for me as well and made me think that economics was a really good choice.

Rob Stavins: I can imagine that. So at Harvard, can you tell me about your dissertation committee and your topic?

Billy Pizer: Well, I went to Harvard having spent the summer at the World Bank, thinking I wanted to do development economics. It was 1991. And the transition was taking place in Eastern Europe and Russia. And I was very excited about that. And I thought that's what I wanted to do. But over the course of studying, I kind of fell in love with econometrics and statistics. I also liked microeconomics, and development kind of faded into the background. Meanwhile I began learning about climate change. And I guess it came to me because Bill Nordhaus had just written a book on this topic, which I guess later he got the Nobel Prize for. And it really got me thinking that this was an interesting area. And I remember having a conversation with my primary advisor Dale Jorgenson, who just recently passed away. And he was trying to convince me to go maybe into tax. He was very big into consumption tax. But I remember thinking climate change seems like it could be an up and coming topic. So I decided to-

Rob Stavins: To say the least, it turns out.

Billy Pizer: Well, it was clairvoyance. I don't know if I can give myself that much credit. But I remember thinking, maybe I should put a bet on something new and different as opposed to something that people have been struggling with for the past 30 years. And of course my dissertation committee, I don't even remember who it was but I definitely remember, Rob, that you and David Cutler I feel like staged an intervention for me at one point to help me get through the job market successfully. So I'm forever indebted to that.

Rob Stavins: I don't recall the intervention, but I'm glad it was helpful. So your first position out of graduate school, was that as a fellow and then a senior fellow at RFF?

Billy Pizer: Yeah. Finishing graduate school, I think, like a lot of people in graduate school, regardless of what I came in thinking, I was kind of brainwashed into thinking the only legitimate job after a PhD in economics was academia. And I really wanted to go into research and academia. As I tell people, I picked RFF as my job because it was the only really good job offer I had in 1996. So yes, I came to RFF thinking I wouldn't necessarily stay at RFF, but the truth is I just fell in love with the model of research with an eye towards engagement and decision making, and not in some abstract sense but really oriented towards questions that people needed to know the answers to.

Rob Stavins: Now, from 2000 to 2001, if I have it right, you were a visiting scholar at Stanford. Then you go off to the Council of Economic Advisers from 2001 to 2003 as a senior staff economist. Correct me if I'm wrong, and if I'm right, tell me how those evolved.

Billy Pizer: Sure. Well, the visit out to Stanford was wonderful. It gave me a chance to meet different people in a different research environment. It definitely convinced me I liked RFF. The Council of Economic Advisers opportunity was really wonderful. I still remember getting the call from Glenn Hubbard asking me if I wanted to join the council.

Rob Stavins: Now a member of the board of directors of Resources for the Future.

Billy Pizer: Yeah, he's now a member of our board of directors at Resources for the Future. But I remember him calling me and he says, "Hello, this is Glenn Hubbard." And I must've been silent for a few seconds. And he goes, "This is Glenn Hubbard, chair of the Council of Economic Advisers."

Rob Stavins: That's great.

Billy Pizer: And I guess I just had assumed when President Bush won the election and Al Gore lost that climate change and environment was not going to be at the top of the agenda. But Glenn came into that role on the Council of Economic Advisers, really wanting to push the environmental agenda. And so, he hired me. It was a really great experience. Unfortunately we didn't put as much into environmental policy as I had wanted, and climate change, while I was there, but it was a really wonderful experience.

Rob Stavins: And then from there you went back to RFF for a time, and then went into an even more important position in the government, Deputy Assistant Secretary for Environment and Energy at the Treasury Department. So again, why don't you tell us how that came about.

Billy Pizer: Well, it came about because Hank Paulson, who was the Treasury Secretary at the time, the way I would tell the story, he has two passions outside of business and whatnot. One is China and another is the environment. And he really worked as Treasury Secretary despite a global economic crisis to make progress

on both those issues. So he created a strategic and economic dialogue with China on the one hand, and he created an office focused on energy and environmental issues on the other hand.

And he approached me, or actually somebody on his staff approached me about being the first Deputy Assistant Secretary for Environment and Energy at the Treasury Department. And I at the time had no idea what the Treasury Department did with regard to energy and environment, but it turns out they have a number of important roles, not the least of which is the Treasury Department is responsible for all of the oversight of the multilateral development banks which, through that development role, have a huge consequence on the environmental outcomes in developing countries. So a lot of what my job was at the Treasury Department for three years was trying to improve the environmental policies at the multilateral development banks and build up financing for climate investments in those countries.

Rob Stavins: And then you've had a set of illustrious successors, most recent of whom was Catherine Wolfram, who's going to be a visiting professor at the Harvard Kennedy School. And from discussions with her, she also founded to be a wonderful series of engagements being at that position in the Treasury Department.

Billy Pizer: Yeah. It's hard to understate to overstate how valuable that sort of experience can be. It's a very senior level position. The Treasury Department is very involved in all sorts of interagency decision making. And you really have... even more so, I would say, than the Council of Economic Advisers, which is almost more of a consulting agency within the government. Treasury is operational and you get really involved in operational decisions that the government is making in this space.

Rob Stavins: Now, from Treasury then you went into academia with both feet. You became a tenured professor at Duke University and stayed there for a full 10 years.

Billy Pizer: I did. I had to scratch that itch. And I tried out teaching, and I enjoyed it, but I didn't like grading. And then I started getting into leadership roles at the university. And Duke's a wonderful university but I just realized that the mission of the university was not what would wake me up every morning excited. Research is great, teaching is great, but I wanted to be somewhere where the mission was really to have impact with the research. And even at a policy school... you're at a policy school so you know this. The bread and butter is still research and publications and teaching. And you have to go a little bit outside of the boundary sometimes if you want to have impact. And so coming back to a place like RFF was really an opportunity to focus on being engaged with and running an organization that, really, that impact was central to what they did. So it's really been a wonderful return after 10 wonderful years in North Carolina. My family's in North Carolina, so it was partly a family motivated move. But now we're back in DC.

- Rob Stavins: And while you were at Duke, you were there with a wonderful set of other environmental and energy economists including a number of my former students, one of whom of course was Richard Newell, who's now president of [Resources for the Future](#).
- Billy Pizer: Yeah. Richard and I have had a long history of following one another into different roles. I came to RFF, then he came to RFF. I went to the Council of Economic Advisers, then he went to the Council of Economic Advisers. Now, he preceded me going to Duke, and then I went to Duke. And then he proceeded me coming back to RFF, and then I came back to RFF. But we have had this weird tag team over the last 25 years.
- Rob Stavins: Well, and you've both made great contributions, I must say, everywhere you've been. So with that, let's think about your contributions in the world of environmental economics and policy scholarship before we turn to the policy world. I assume that, since your 1996 PhD degree, that's more than 25 years ago, you've seen some significant changes in the scholarly world of environmental economics. Is there one change that stands out to you?
- Billy Pizer: Well, I think one thing that's different now than 25 years ago is I think of environmental economics as being much more mainstream. I feel like when I graduated, a lot of departments didn't have an environmental economist, and now most do. Some have multiple environmental economists. There are a lot more environment and energy institutes at universities. And it's recognized as a much more mainstream topic, I think, in economics generally. And I think the research reflects that. There's a lot more publication opportunities. I also think that, among economics subfields, environmental economists tend to be, I would argue, as engaged if not more engaged in public policy than others. And I think that's been really wonderful as well. I think they've had a lot of impact on the policy choices that have been made.
- Rob Stavins: It's worth stating to further evidence of what you said about environmental economics going mainstream, there's nothing more mainstream in economics than the [National Bureau of Economic Research](#). And when I graduated my PhD, which was 1988, there was of course no program in environmental economics. And now in terms of the summer workshop, the Environment and Energy Economics Program is the largest. The largest attended of any of those summer programs, which is quite remarkable.
- Billy Pizer: Well, I was actually thinking of one of your contributions, which was the creation of the journal, the [Review of Environmental Economics and Policy](#), which, I don't know what the statistics are, but I think it's one of the highest ranking journals right now, and certainly has been, I think, a leading vehicle to influence public policy through environmental economic research.
- Rob Stavins: Well, that's great to hear because I'll tell you, the first time I proposed it to the board of directors of the [Association of Environmental Resource Economists](#), they weren't particularly enthused. They saw it as too soft compared to what

was then the flagship journal of the association, the *Journal of Environmental Economics and Management*. But a subsequent board liked the idea, apparently, and then they came back to me and said, "How about launching this?" And it happened. Talking about publications, I know this isn't fair, it's like asking you which of your children's your favorite, but is there one research publication of yours, Billy, that you are most proud of?

Billy Pizer:

Yeah. It's interesting. In some sense... there are a couple of things I guess I think about. Work that Richard and I did a long time ago on discounting, where we took an idea that Marty Weitzman had about how uncertainty affects discounting over the long term. And we kind of quantified it using data. I feel like that has had a pretty substantial consequence. And that's been a source of... I've been very pleased about that. I will say there was kind of a flaw in that, so I think we've subsequently come back in the National Academy report that Richard I also were involved in, he chaired, kind of fixed that. And just kind of recognized the importance of the uncertainty in the discount rate, and the possibility it might be correlated with the stuff you were discounting is kind of important.

But that line of work on discounting has been particularly rewarding. And the other thing that I've really enjoyed and gotten a lot of good feelings out of has just been the work on comparing different policy instruments under uncertainty. And that started with my dissertation that was looking at prices versus quantities for stock pollutants like carbon dioxide, but then has gone in a number of different directions with policy updating and tradable performance standards and all kinds of cool stuff. And that's also been quite rewarding.

Rob Stavins:

So, let's turn to current times and to the policy world. As I mentioned at the outset, you recently returned from COP27 in Sharm El-Sheikh. For you, what were the most important takeaways, the most important outcomes of that 27th Conference of the Parties?

Billy Pizer:

I guess there were four things I think about that happened during the COP27 meetings. At some level, going into the COP the main topic of negotiations that countries were very focused was on finance, and in particular the idea that, in addition to developed countries supporting emission reductions in poorer countries, mitigation, in addition to supporting efforts to prepare for the impacts of climate change, adaptation, there should be a funding vehicle that addressed losses and consequences in developing countries that couldn't be adapted to. So, if you lose your island or land mass because of climate change, what do you do about that loss to your wellbeing and your welfare? So that was a big topic going in. There was a lot of contention around it. The United States has been very concerned about whether or not there would be a notion of liability that went with such compensation. But remarkably, it was on the agenda, it got negotiated. And in the end, there was an agreement to a new fund.

And we can go on about whether that was a good idea or not. It was a little surprising because the United States typically does not like to create new funds.

But in the end, they were isolated, and I don't think they wanted to be responsible for a bad outcome. And I think they also recognized the writing on the wall, that this was what the majority of countries wanted, and so they agreed to it. So that was one big outcome.

I think if you back up from the negotiations, in some sense the biggest thing at the meetings, in my mind, over the past couple of years has really been what's been going on in the non-state actor world with voluntary commitments. And in particular, I would say recently focused on voluntary carbon markets. Companies make pledges, jurisdictions make pledges, Harvard and Duke make pledges and they try to reduce their emissions as much as they can, but to the extent can't they're going to buy credits in a market.

And that market, we were just talking, I think has been \$1 to \$2 billion of trades or asset creation and is forecast to be maybe 10 times that over the next decade. And so that's a lot of money going from people to mitigation. And that's just been a big topic, and there have been a number of developments that we could talk about in that world. I think the other two things I would just mention: there is a broad recognition that we're not on track to meet the targets, the goals of the convention or the goals of the Paris Agreement to limit warming to two degrees or 1.5 Degrees. And despite that, there weren't dramatic increases in ambition announced. So that's almost like the lack of an outcome that was notable. And then the fourth thing I guess I would just mention is, since August or September, China and the United States have not really been talking at all about climate change.

This kind of followed on the Speaker of the House Nancy Pelosi's visit to Taiwan. You could argue that this goes back even further. In the olden days, like in the lead up to Paris, the US and China were cooperating extensively and really propelling the negotiations forward. But that was just all on ice. And during COP27, President Biden met with [China President] Xi Jinping. Not at the COP but as part of G20 meeting or G7 meeting. And that meeting led to a thawing of that situation, and now the negotiations have stepped back up. And I think that is certainly a significant development because I think it's just very hard to make progress without the US and China talking.

Rob Stavins:

Yeah, I very much agree. I think in the long term that may be the most important outcome of this period of time of the COP, although you're correct that it didn't actually take place within those hallways. It took place 6,000 miles away. Now, these annual Conferences of the Parties and climate change negotiations more broadly are probably better characterized as a marathon than a sprint. Another metaphor I've used sometimes is, each one of the COPs are successful in a sense if they hand off the baton to the next one, they don't drop it. Stepping back from the specifics, you've gone through these four items, which is very interesting. Stepping back from that, what's your personal assessment of this Conference of the Parties?

Billy Pizer: Well, this was never going to be a major COP. This is COP27, so there's obviously been 26 before them, actually 27 if you count the 6 and a half one. And there've been big ones and there've been little ones. There was one where the [Kyoto Protocol](#) was created. There was the [Copenhagen Accord](#), which I think of as success, other people think of as failure. There was the [Paris Agreement](#). These were massive events in some sense where things really changed direction or moved ahead in meaningful ways.

And this was never going to be one of those COPs. And in some sense we're now at a place after Paris where everything is a little bit lower stakes, in a sense, because we have the framework in place. And everything now is simply moving that framework along to the next step. So, there'll be nationally determined contributions; there'll be global stock takes; there'll be developments in the margins on other issues. But there's not going to be a new treaty. There's not going to be another Kyoto Protocol, at least not anytime soon. And so I think it's inevitable that there's a little bit less high level drama and stakes going on at the COPs. That doesn't mean they're unimportant; it just means that the nature of the COPs is different.

Rob Stavins: Yeah, each one is very different. This was supposed to be the implementation COP, but it really turned out to be the loss and damage COP to a large degree. I wanted to ask you, speaking of that, which really relates to some degree to activism, that there's been a quite remarkable rise in youth movements of climate activism sort of going back approximately to 2019, at least in terms of a big presence at the annual Conference of the Parties. And I'm not just referring to Greta Thunberg, who of course sat out this year's COP, but more broadly in Europe and the United States.

Now, this year the attendance by youth activists and demonstrators in general was quite suppressed, apparently because of the difficulty and the expense of traveling to and then hotel accommodations in Sharm El-Sheikh. But I'm interested in your reaction more broadly to the youth movements of climate activism. Back when I was in college there were similar movements, but they had to do with the war in Vietnam. Do you see these movements of climate activism as valuable? Misguided? Where do they fit in your mind?

Billy Pizer: It's an interesting question. I remember when I was at Duke. You had this at Harvard as well, I'm sure. A divest movement.

Rob Stavins: Yes.

Billy Pizer: And I remember having this conversation because at the time, and maybe I've evolved a little bit, but I just felt like it was not productive to divest from fossil companies, at least not oil and gas companies. And the students asked me, "Well, what do we do as students?" And I remember thinking, that's a really great question because I didn't have a good answer for it. And it's since got me thinking a bit more about the role that movements and probably youth movements, because usually movements are driven by youth or by people who

have more energy than those of us who are further along. And I think it does actually play an important role.

The COPs are all about focusing attention and demanding an annual contribution, in some sense. It's like passing go in Monopoly or something. You have to show that you've done something or it's declared a failure, or your country is declared a failure. And I think the youth movement and the popular movement to address climate change has that sort of catalyzing role to help move things along. Is it the most important piece? I don't know, but I think it does create part of the environment that pushes action forward. And I think it also creates a dynamic where, with the younger generation, I think even more committed to taking action, it helps decision makers, businesses, people that are betting literally their money on different events taking place, that this sort of action in the future is going to even accelerate more because the younger generation is even more concerned about it. So in some sense I think it is pretty important because it does give you a sense of where things are going and that younger people are even more convinced than we are that this is something that has to be tackled.

Rob Stavins: Although that does raise a question whether this is a cohort effect or an age effect. Most people, the cliché goes but I think there's some truth to it, tend to get more conservative as they get older. Or is this a cohort effect and this group of young activists will then become 30-year-old activists, will be inside COP42 or whatever? Inside the negotiating rooms. What do you think about that?

Billy Pizer: Well, I'm sure there is a certain element of growing older and becoming more conservative. I've certainly noticed it in myself. But I do think there are real consequences. I remember, this was 10 or 15 years ago, talking to some high school students or maybe even junior high school students, and being amazed they knew how electricity was generated. That there were coal-power plants and then there were renewables, and that we needed to get off of the coal-fired power plants. I had no idea about that when I was in junior high school.

Rob Stavins: Right.

Billy Pizer: So I think that, by virtue of being motivated and engaged in the issue, they are going to carry forward with them these concerns and this knowledge in a way that it took me until I was in my 20s to realize this was an issue. So I do think that there is a real consequence to it that people won't just age out.

Rob Stavins: I tend to agree. There are elements of both, but I do think it's a cohort effect and these people are not going to age out of it. This notion that you brought up, which makes a lot of sense, of it's a response to a feeling of, what can I do? I remember that in an earlier generation on environmental issues. People wanted to do something about a different set. And that spurred tremendous demand for curbside recycling, which became very, very popular, recycling in general, because people wanted to do something about the environment. And you probably get the question. I do. I might be at a cocktail party or with a group of

relatives or whatever. And people ask me, “What can I do about climate change?” And then my first answer of course is, “Well, make a charitable contribution to Harvard University or Resources for the Future, or both.” But then my second answer is always, “Vote.” But I understand that that's not a very satisfactory response to most people, suggesting that they vote. They want to do something that's more engaged.

Billy Pizer: Just to agree with you, I think I actually had the same response to those students at Duke a while ago. I think I told them they should go out and try to work on campaigns and get people elected who are actually going to make a difference on these issues. And in North Carolina, that's a real thing to do.

Rob Stavins: Yes.

Billy Pizer: But then they do want to see things they could do in their own personal life to demonstrate action. And I will confess, we installed solar panels; we got insulation. Right now I'm paying for renewable energy, although I can't totally tell you where it's coming from. My son wants me to buy an electric car even though I don't drive to work. So I do feel like these sorts of things have a demonstration effect, and people want to figure out the right thing to do. And they do have consequences. People see what you're doing, and they can emulate you and they can build momentum to take action. So I don't think they're unimportant. Whether they're the most important thing is a separate question.

Rob Stavins: That a good place to bring this to a close, with some optimism. Optimism that's conditioned upon eventually empirical analyses of these questions. So let me just say thank you very much, Billy, for having taken time to join us today. I've enjoyed this. I hope it's been okay for you.

Billy Pizer: Oh, it's been wonderful, Rob. It's always fun to talk to you. And I really hope we get to continue this.

Rob Stavins: Our guest today has been [Billy Pizer](#). He's the Vice President for Research and Policy Engagement at [Resources for the Future](#). Please join us again for the next episode of [Environmental Insights: Conversations on Policy and Practice](#) from the [Harvard Environmental Economics Program](#). I'm your host, [Rob Stavins](#). Thanks for listening.

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