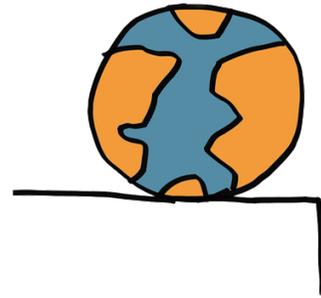


SEIZING AN ALTERNATIVE Toward an Ecological Civilization June 4-7, 2015

Section I: The Threatening Catastrophe: Responding Now



Robert Haw: Discussion and Q&A

RH: (59:20) I guess the good news is, you're still going to be getting a dividend when it's \$5000 a ton.

DG: You know, you may be thinking that \$5000 a ton is just out of sight, unrealistic. But, my Harvard guy, Weinstein, he has what he calls a "dismal theorem." When you factor in risk, mainly climate change has to be about risk. Just like insurance. You pay an enormous amount to insure your house, I mean a reasonable amount, to insure yourself against disasters. So, we need to do the same thing with climate change. So, he says, when you're talking about the social cost of carbon, you have to say it's actually infinite, because it can, ultimately, ruin the whole civilization, a condition that will mean the end of the economy. And so, \$5000 is pretty cheap compared to infinity.

RH: That get's back to the discount rate. People setting discount rate at a high number is just absurd. If they are going to insist on using these models, the damage formulas have to incorporate this dismal theorem. It seems the government will only listen to a model. It seems, these models have to be written with these new algorithms in them.

Unidentified male speaker: (1:01:35) That really is your crux. If I understood your correlation is that. going back to Nordhaus, the lower the discount rate, and the higher the price of the carbon, the more of an impact it would have on present day growth, which by their definition, is a reduction in current wellbeing. So, we are faced with rationally curtailing current growth to greater good in the future. That's flatly in the face of economic growth philosophy. And that's the political reality that we're facing.

RH: So, everyone seems to be saying the same thing. If you heard Herman talk this morning, he said, economists have the choice of solving world poverty, or having

economic growth. You have growth, or you have redistribution, which to them is death. Those are the choices. And, economists always choose growth. But reducing discount rate would reduce growth, because we would be paying more for the damages that we are throwing over the fence to the future.

Unidentified male speaker: (1:03:12) All of the REMI economic models, the input/output models, the magic here, those dividends really do go back to become disposable personal income. Ultimately we will have a very powerful economic engine effect, an aggregate effect, in all local economies.

RH: The blue bars I showed on the slide called 'Number of Jobs' generated. 2 million jobs, and it's all over the country, everywhere. And the reason it's happening, it's not magic, everybody is getting back hundreds, thousands of dollars, in their pockets. A lot of that money will be spent, one way or another, maybe on retrofits. A perfect example of how to spend it, or maybe they save it up for a number of years and buy a TV with it, but is going to be spent in the local area.

John: My question had to do with, how do you, what are the incentives in this for congress members, in other words, how do we convince those kind of people who's motto is to not raise taxes?

RH: Citizens' Climate Lobby is working to do that with this study. It isn't a year old yet. It's one of our main lobbying tools right now. Showing the results of the study and how it works, and that it is beneficial for everybody. But for somebody that's bought and sold by the oil companies, it's not going to have any impact.

DD: (1:05:20) Let's say that we actually as accurate as we can be social cost of carbon. It would be a larger number, as you said. But someone has to pay for what that is, and it's not going to be this dividend. It means the money has to come from somewhere else to repair the damage that is caused. It's the oil companies that aren't paying. The social cost still has to be paid. Who's paying it?

RH: That's what the REMI study, essentially, they have a sophisticated model, but other models show it, As this [carbon price] goes up, people use less fossil fuel. So, the way the social cost to [gets passed to] the future, there are fewer emissions. The yellow line went down, meaning there was less gas used in the future. So, we are lowering the damage to the future. In the mean time, I've got more money to spend on health costs, and other costs associated with the carbon economy. It builds more hospitals, it creates more jobs, all of that. You have money in your pocket to help you adjust to what ever changes are occurring now.

DD: Well, society has to pay for the damage.

Unidentified male speaker: Aren't we saying the damage will go down? RH: When the damage goes down, the costs go down.

DG: Dwain, just call this a carbon tax. In this program, the manufacturers are emitting carbon dioxide. They're the ones we'll put this fee up to, so they will have to pay the \$5000 for the carbon.

RH: They will certainly pass that on, so it is your choice, right? Anything made with fossil fuels then will be expensive. You will have a rebate check. Choose to buy a product that has been made with fossil fuels, and it will be expensive because of that \$5000. Or, you can choose to buy something that was made with renewables, with wind, with solar, with geothermal, which will be cheaper.

DG: So the point is, very shortly, there will be nothing made out of carbon anymore. It will be far too expensive.

DD: One point, maybe I'm confused. The social cost of carbon I'm assuming stays fixed, the unit cost.

RH: No, no.

DD: If it goes up and up, even if we reduce our use of fossil fuels, the two of those are working together, if you multiply...

RH: It's an inverse relationship. the higher the social cost of carbon, the lower the fuel use. Once the fuel use goes to zero, then the product goes to zero.

Unidentified male speaker (1:09:33): This is interesting, but models are built around a lot of assumptions: economical, physiological, and behavior. and if I understood your numbers right, you might be able to apply your model within a certain range of conditions - how much gas would you sell if it was twice as high as it is now, but the \$5000 per ton of carbon dioxide would be about 300 times the current cost of \$14. So, an extrapolation of 300 times would make a lot of people wonder of those factors are reasonable.

RH: Sure, that's a totally valid objection, and I'm not saying \$5000 is exactly the right

number. Same male speaker: If the model were 2 or 3 times, then the model would credibly hold up.

RH: No, no. I think what is more the objection is time. If this went out 50 years, that would be much more acceptable. That \$5000 number came after only 20 years. Maybe it's the percentage increase of 25% per year that is severe. But, that's the level, the order of magnitude change that is needed to drive the fossil fuels to zero. The REMI model, the more sophisticated one, it agrees with the other simpler one from the tax center, for the 52% of decrease. Both models agree, and the REMI model with the yellow line, uses very sophisticated formulas. They are very confident over 20 years. So, yes, extrapolating something so enormously is problematic, there's all kinds of linearity problems. but, what I'm trying to show, where we do have linear regime, we are not close enough to achieve what we have to achieve. In kind of a common sense way, it stands to reason that something that is becoming very very precious to the users of it, for the last 30% of fossil fuel, it's probably going to have to take an exponential increase in price to drive that to zero. Because, it's so very useful and convenient. In other words, a linear change just won't have the same effect.

Same male speaker: My point, at some point people will burn wood in their cars, or something. They will do things illegally, or get around the regulations, that the assumptions that we have to make to push things out so far, haven't been considered, and they will consciously make decisions that make our thinking break down.

RH: Very true, but the same argument goes for the IAM price, the current government price on the social cost of carbon, they're not taking into account similar extrapolations on the other side.

Unidentified female speaker: What about food? If you did this right away, would the high tax on carbon drive up food prices? Food prices are already going through the ceiling, so to me, if we don't do some sensitivity analysis around food, we still would have massive starvation even if we did this.

RH: That's a very appropriate comment. Vandana Shiva spoke about the way she's growing food. There's a very big localization movement coming along. The current agricultural system is very dependent on fossil fuels. It's 10 to 1, the calories you eat, 10 times that are required in fossil fuels. Farms have to decarbonize also. There are ways, permaculture, for example, is a method of growing food that is very good from a not-using-fossil fuels standpoint, but it takes awhile to start up.

same female speaker: If we were actually able to pass this, or I should say, where are we in trying to pass this?

RH: Well, there are two bills in Congress right now, but they're not going to get out of committee. One by Van Hollen, the other by McDermott of Washington. They are both revenue neutral bills. There are some variations between them, but they are coming from the minority party, so they probably are not going to get out of committee. Also, Ted Lieu, the newly elected congressman from Henry Waxman's district, has also submitted a bill. I'm not sure where that one is, but it's an AB32 clone. But, that's cap and trade. But, if we have to set an exponential price on carbon to get it down, how are we going to set an exponential cap? That's where cap and trade is going to have a real problem. But, that's if it gets implemented on a national basis. But, those are the three that I know about.

DG: In terms of the cost to the average family, thinking about fee and dividend, sure, you're going to pay a lot more for food, but you're going to get more back to cover that cost. But, at the same time, you've got to say, boy, I'm just breaking even there. But, if I can just go and get clean energy food, it's going to be cheaper, I'm going to start buying that.

RH: But, we have to be careful with farms. They are so lopsided in favor of fossil fuels,
DG: But, it's going to apply to them too.

Same female speaker: I'm just saying, if we were successful in doing this tomorrow, this fee and dividend thing passed, I just worried that the people at the low end of the economy. How are they going to eat? Because they are probably way more dependent on fossil fuels.

RH: Just for the moment, let's say this is passed. This is a very progressive program. It helps people at the lower income levels, far more than it helps people at the higher level because, they don't have high energy uses. It's the same check for everybody.

Same female speaker: Yes, but they're paying more for their food, proportionately. If the price of food goes way high even though they are getting some dividend, just would be interesting to do some sensitivity analysis on that.

RH: The Citizens' Climate Lobby is aware of that problem, and they've, in the last six months, formed a special committee to look into that. It's not an easy problem. You put

your finger on a really important place.

Another female speaker: Are you optimistic with these meetings that are going on?

RH: Well, I'm optimistic with the meetings we've had. It is having an affect. In past years, we have gone to Washington and talked to Republican legislators behind closed doors, nobody with a mic on, and they have said, yes, we really understand that this is a problem. I see that this is a market-friendly solution, it doesn't violate any of our parties limits, it's not a tax. They say, I'm sorry, for many of them their constituents just aren't there. If they go do this, they will get "primaried" the next Congress. Someone will come and say, Oh, look what he's done, and they will put a different candidate in there for the Primary. And, the second issue, is just the Republican Leadership that whips these guys into shape, and tells them, no.

Unidentified male speaker: If they get phone calls from their constituency, do you think they can get it out of committee?

RH: Well, you would have to be in the districts of the members who are controlling the committee.

Same male speaker: If have of their constituency made phone calls, would that be enough?

RH: Oh, I don't know if anybody's done a sensitivity study like that. I'm positive, if a half of the constituency did that, then Yes. I think, on the order of 700,000 roughly per district, I would say, if a 1,000 people wrote a letter or phoned, that would probably start them really ticking. Just real quick, two years ago, we visited on the Hill just as I described, to conservative Republicans. One of them was a Republican from North Orange County, he had just come back from a trip to China, saying, "their air is awful, sure glad it's not like that here." And so, we talked to him about the carbon fee and dividend. He said, "wow, this is really great. I'm going to talk to some of my buddies about this." So he went and talked, then said, "we're going to put this to a vote on the floor." Ten days later, John Boehner said publicly, "There will be no voting on a carbon tax in my Congress." So, word got to him of a rebellion of some sort, and he just shut it down like that. So, the Citizens' Climate Lobby does make a difference. We are talking to ears that are listening, but, unfortunately, it's a volunteer organization. We are trying to talk truth to power.

Unidentified female speaker: I don't know where I read this, maybe Kline's book, I've

heard there are ten major oil companies. They're just waiting to be taxed. They have plans in place to go do something else. They just need government action. It's so nuts.

RH: Some departments in the oil companies are funding these guys, and then there's the other parts that, they have websites that say, "we would like a carbon tax." Don't be too seduced by that. When they say carbon tax, they don't want an escalating carbon tax. One number, to pacify all those calling for a tax.

Same female speaker: What subsidies are in place? They should just be done away with . It's so absurd.

RH: It's historical. They've been there for a hundred years, why can't they continue.

DG: They pay, and they buy their congressman.