Twenty years ago Michael Porter, now the Bishop William Lawrence University Professor at Harvard, published a one-page essay in *Scientific American*, entitled “America’s Green Strategy,” in which he argued that stricter environmental regulations could encourage innovation, increase efficiency, and enhance business performance. This concept has heavily influenced business and environmental regulatory theory ever since and is now known as the Porter Hypothesis.

The hypothesis challenges traditional command-and-control policies that mandate specific technologies and instead opts for outcome-based regulations, which give firms the flexibility to elect least-cost options and spur innovation. The right kind of regulations can result in a process that not only pollutes less but lowers costs or improves quality by:

- stressing pollution prevention rather than merely abatement or cleanup,
- not constraining technology,
- being sensitive to the costs involved, and
- using market incentives.

To acknowledge this milestone, Porter was invited to give the annual Hans Landsberg Memorial Lecture at RFF this past January, where he discussed how his hypothesis has evolved to be particularly germane to environmental regulation in the current economic climate. The lecture was followed by a lively panel discussion.

"I think this whole question of American competitiveness and the role of regulation in American competitiveness has really risen again to the top ... of the radar screen in the debate in this country,” Porter said in his opening remarks. “There’s a tremendous angst and even tension between business and government—the private sector and the public sector—and how those two parties can either work collaboratively or competitively in addressing some of the most important challenges facing America and our society.”

As a young professor at Harvard, Porter initially focused on business strategy, and soon after, he began to incorporate environmental concerns into his work. Today, he is widely regarded as the father of the green strategy movement. His research on sustainability has been featured in major news outlets around the world and has contributed to a new generation of business leaders who are committed to environmental responsibility.

The Porter Hypothesis has not only reshaped how businesses think about environmental regulation but has also influenced how governments approach environmental policy. By placing emphasis on innovation and efficiency, the Porter Hypothesis encourages a win-win solution for both businesses and the environment. This approach has been particularly successful in reducing pollution while simultaneously lowering costs for businesses, leading to improved quality and increased competitiveness.

The hypothesis has been instrumental in shaping environmental policy at both the national and international levels, with many countries adopting policy frameworks that encourage sustainable growth and innovation. As Porter continues to influence the future of environmental regulation, his work remains a powerful testament to the power of collaboration and innovation in addressing the most pressing challenges of our time.
describe new research that he has done with Daniel Esty, Hillhouse Professor of Environmental Law and Policy at Yale and a member of the RFF Board of Directors, on climate change legislation. In their view, it has been unsuccessful thus far because the proposed bill created a complex cap-and-trade system without a clear link motivating companies to invest in innovation.

Moreover, there was a lot of uncertainty in the legislation about the value of innovation and allowance credits over time. According to Porter and Esty, the “simplest, cleanest approach to climate change policy is actually what we call an emissions charge—a carbon tax.”

The fundamental idea is that “if an entity can be given a platform and a set of rules and an expectation about the set of rules in the future, there will be both an incentive and a necessity” for innovation, Porter said. Therefore, impending EPA greenhouse gas regulations could potentially impact our global competitiveness for the better.

RFF researchers have published broadly on the impacts of environmental regulation on productivity, innovation, and competitiveness. Several have written on the Porter Hypothesis, including a recent publication by RFF Vice President for Research and Senior Fellow Mark Cohen and several colleagues, looking at the body of research that has stemmed from the original Porter Hypothesis to determine policy implications and areas of future research. (See the box for more on this topic).

**Strategies with a Social Dimension**

One concept that Porter introduced in his talk was that of “creating profitable business models to actually address very profound social issues,” or creating shared value (CSV). Not the buzz term that has

Part of the problem with taxing carbon is that “the word tax has been ruled invalid from the start... [Instead,] let’s call this a depletion charge for depleting future generations’ energy resources.”

Michael Porter

Moreover, there was a lot of uncertainty in the legislation about the value of innovation and allowance credits over time. According to Porter and Esty, the “simplest, cleanest approach to climate change policy is actually what we call an emissions charge—a carbon tax.”

The fundamental idea is that “if an entity can be given a platform and a set of rules and an expectation about the set of rules in the future, there will be both an incentive and a necessity” for innovation, Porter said. Therefore, impending EPA greenhouse gas regulations could potentially impact our global competitiveness for the better.

RFF researchers have published broadly on the impacts of environmental regulation on productivity, innovation, and competitiveness. Several have written on the Porter Hypothesis, including a recent publication by RFF Vice President for Research and Senior Fellow Mark Cohen and several colleagues, looking at the body of research that has stemmed from the original Porter Hypothesis to determine policy implications and areas of future research. (See the box for more on this topic).

**Strategies with a Social Dimension**

One concept that Porter introduced in his talk was that of “creating profitable business models to actually address very profound social issues,” or creating shared value (CSV). Not the buzz term that has

Part of the problem with taxing carbon is that “the word tax has been ruled invalid from the start... [Instead,] let’s call this a depletion charge for depleting future generations’ energy resources.”

Michael Porter

Moreover, there was a lot of uncertainty in the legislation about the value of innovation and allowance credits over time. According to Porter and Esty, the “simplest, cleanest approach to climate change policy is actually what we call an emissions charge—a carbon tax.”

The fundamental idea is that “if an entity can be given a platform and a set of rules and an expectation about the set of rules in the future, there will be both an incentive and a necessity” for innovation, Porter said. Therefore, impending EPA greenhouse gas regulations could potentially impact our global competitiveness for the better.

RFF researchers have published broadly on the impacts of environmental regulation on productivity, innovation, and competitiveness. Several have written on the Porter Hypothesis, including a recent publication by RFF Vice President for Research and Senior Fellow Mark Cohen and several colleagues, looking at the body of research that has stemmed from the original Porter Hypothesis to determine policy implications and areas of future research. (See the box for more on this topic).

**Strategies with a Social Dimension**

One concept that Porter introduced in his talk was that of “creating profitable business models to actually address very profound social issues,” or creating shared value (CSV). Not the buzz term that has
DOES THE EVIDENCE HOLD UP?

The Porter hypothesis has bedeviled many environmental economists ever since its publication for traditional economic theory teaches that regulation increases costs and decreases productivity and competitiveness. Many initially reacted with skepticism, alleging that if such easy, low-cost options existed, firms would have capitalized on those by now and that Porter did not present sufficient empirical evidence to substantiate his claims.

RFF Senior Fellow Karen Palmer has been an outspoken critic of the Porter hypothesis for many years, stating in a 1993 discussion paper (with Paul Portney and Wallace Oates), that “the anecdotal, descriptive, and empirical evidence... all tends to run counter to the Porter hypothesis.” Today, her assessment of the Porter Hypothesis remains much the same:

- Theoretical economic research has identified market conditions and market failures associated with imperfect competition under which regulation can create a competitive advantage.

- I think the Porter Hypothesis poses a challenge to firms to look at improvements in their own environmental performance as a potential source of future productivity gains. Firms’ resistance to new environmental regulations (even flexible ones like cap and trade) on the basis of expected cost increases and threats to international competitiveness suggest that Porter’s insights are not universally applicable.

- There is good evidence that ex ante estimates of the costs of government regulation tend to be overstated. This is largely due to overestimates of baseline emissions: firms fail to take into account innovations that would have occurred in the absence of regulation and reduced baseline emissions, making the emission reduction challenge seems bigger than it actually is.

Close analysis of the Porter Hypothesis prompts the question, are we at a disadvantage if we do not regulate carbon dioxide? If, as Esty said, “environmental progress is fundamentally a function of technology development and broader innovation,” then we do risk falling behind countries such as China, which is rapidly creating a monopoly in environmental technologies, if we do not invigorate our research and development.

Today, society’s values “have moved dramatically pro-environment,” said Porter. Esty observed that over the past 20 years, there has been a substantial paradigm shift, such that companies of all sizes are now positioning themselves as “solutions providers.” In place of the antiquated “what’s good for business is good for everyone” mindset, the Porter Hypothesis has instigated movement toward a shared-value mindset that “what’s good for the community and for citizens is good for business.” Porter’s main takeaway point is that “we need to look for the ‘win-win’ solution, where we can improve environmental performance and at the same time make the company more productive, more innovative, improve the value of its products, and make it more competitive.” — Madeline Gottlieb

Visit www.rff.org/PorterHypothesisAt20 for additional readings and the event video and transcript.