HARVARD Kennedy School

MOSSAVAR-RAHMANI CENTER
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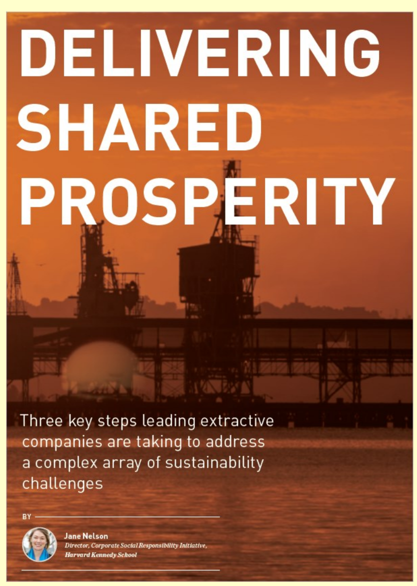
Pande Publishes on Life Expectancy and Pollution in India

India's population is exposed to dangerously high levels of air pollution. In a recent paper entitled *Lower Pollution, Longer Lives: Life Expectancy Gains if India Reduced Particulate Matter Pollution*, **Rohini Pande** and her co-authors use a combination of data to estimate that 660 million people, over half of India's population, live in areas that exceed the Indian National Ambient Air Quality Standard for fine particulate pollution. Reducing pollution in these areas to achieve the standard would, they estimated, increase life expectancy for these Indians by 3.2 years on average for a total of 2.1 billion life years. The paper includes an outline of directions for environmental policy to start achieving these gains.

Nelson on Delivering Shared Prosperity

Extractive companies face a wide range of leadership challenges. In a time of increased geopolitical uncertainty and commodity-price volatility, these companies need to deliver stronger cost controls, greater operational efficiencies and productivity, and disciplined capital allocation. They must also tackle growing resource nationalism, threats to natural ecosystems, higher community expectations, more sophisticated activist campaigns, and increasingly vocal investors. These challenges must often be addressed while operating in places where governance frameworks are weak and the delivery of public services is inadequate. In a recent article entitled *Delivering Shared Prosperity*, **Jane Nelson** discusses key steps for extractive companies to operate sustainably and responsibly in these challenging conditions.

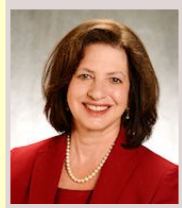


Seminars & Events

M-RCBG has over 80 seminars and events scheduled each semester. Below are a few of the upcoming events. For a complete listing, visit *www.mrcbg.org*.

Sino-Russian Cooperation in Natural Gas; **Morena Skalamera, Geopolitics of Energy Project.** Bell, Apr. 6. 12-1:30.

Lessons from the Financial Crisis; **Lewis B. Kaden, Former Vice Chairman, Citigroup.** Bell, Apr. 9, 11:45-1.



New York's "Reforming the Energy Vision" Initiative; **Audrey Zibelman, NY State Public Service Commission.** Bell, Apr. 13. 12-1:30.

A Critical Comparison of Regulatory Regimes for Offshore Oil and Gas in the US, UK and Norway; **Lori Bennear, Duke.** Bell, Apr. 23. 11:45-1.

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Bilmes publishes on carbon sequestration in U.S. national parks

Linda Bilmes, Daniel Patrick Moynihan Senior Lecturer in Public Policy at HKS, recently published a working paper on carbon sequestration in national parks:

Carbon sequestration—the process of moderating global climate change by removing carbon dioxide from the atmosphere and storing it in long-term mineral, organic, and oceanic reservoirs—is an important ecosystem service provided by protected natural areas. One type of carbon sequestration that has received attention in recent years is vegetative carbon sequestration, which is the sequestration provided through plant growth. While a number of countries have developed estimates of their national vegetative carbon sequestration capacity, no estimate exists for the National Park Service (NPS) administered areas of the United States, 85% of which are vegetated. The paper addresses that knowledge gap.

Using federally created, peer-reviewed work on carbon sequestration rates based on a five-year baseline period (2001-2005) of observed data, NPS boundary data, and landcover types, the study calculates the current tonnage and economic value of vegetative carbon sequestration services on all NPS units located in the continental U.S. Average projected sequestration amounts for the period 2006-2050 are also provided based on modeled data.

Using conservative assumptions, Bilmes, along with Adam Banasiak (MPP 14) and John Loomis of Colorado State University, find that at present average annual carbon sequestration on NPS lands amounts to 17.5 million metric tons of CO_2, valued at $707 million dollars using the current federal interagency working group social cost of carbon damage price of $40.45/metric ton. In the future years through 2050, absent any changes in land management (such as invasive species removal or fire management) carbon sequestration is predicted to fall by 31% to an average of 12.0 million metric tons of CO_2 sequestered annually, due to factors such as a warming climate and increased fire hazards.

Given the benefits to society of avoiding this future loss in carbon sequestration, funding for management actions for the National Park Service may be economically justifiable in order to mitigate this decline, although further research is needed to better understand how specific NPS practices can maintain current carbon sequestration levels.

This and other faculty working papers can be found at: *www.hks.harvard.edu/centers/mrcbg/publications/fwp*.

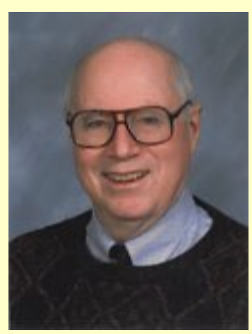
Harvard Project and collaborators examine IPCC

In February, 24 experts gathered in Berlin to explore approaches to improving the process by which research on climate change is assessed—with a focus on the social sciences (economics, political science, policy studies). Participants discussed potential reforms in the assessments of the Intergovernmental Panel on Climate Change (IPCC) and also the development of assessment processes complementary to the IPCC.
The workshop was sponsored by the Harvard Project on Climate Agreements, *Fondazione Eni Enrico Mattei* (Italy), the Mercator Research Institute on Global Commons and Climate Change (Germany), and the Stanford Environmental and Energy Policy Analysis Center (U.S.). The Mercator Institute hosted the workshop in Berlin.

Participants included social scientists who contributed to the IPCC's Fifth Assessment Report, users of IPCC reports (from national governments and intergovernmental organizations), and representatives of other stakeholder groups. They were based in both developed and developing countries.

Leaders of three of the sponsoring organizations, including **Robert Stavins**, Director of the Harvard Project, prepared a memorandum drawing from the discussions at the workshop. The memo describes specific challenges and opportunities facing the IPCC and provides recommendations for improving the IPCC's process of assessing scientific research on climate change.

Scherer publishes article in the Journal of Technology Transfer



F.M. Scherer, Professor of Public Policy and Corporate Management in the Aetna Chair, Kennedy School, Emeritus at HKS, recently published an article titled "First Mover Advantages and Optimal Patient Protection" in the *Journal of Technology Transfer*'s February 25 issue. It examines the economic logic underlying so-called "first mover advantages" as alternatives to patent protection in allowing innovators protection from immediate imitation and time to recoup their research and development investments. These include a head start, lower costs due to learning by doing, and product-differentiating reputational advantages. Scherer has presented it at various meetings in the U.S. and Europe and it is the result of 55 years of conceptual struggle.

Stavins honored at Beloit College

Stavins visited Beloit College in Wisconsin last November.

Robert Stavins, Director of the Harvard Environmental Economics Program, visited Beloit College in Beloit, Wisconsin last November as the College's Miller Upton Scholar for the academic year 2014-15. Named for economist and sixth Beloit College President Miller Upton, the Upton Forum on the Wealth and Well-Being of Nations is Beloit's premier residency program in economics, featuring panel discussions and a keynote address by the Upton Scholar.

While at Beloit, Professor Stavins made a number of presentations:

- The keynote address referred to above and the culmination of his four days as the 2014 Miller Upton Scholar—the June and Edgar Martin Memorial Lecture—on November 7, 2014. His talk was titled "What Can an Economist Possibly Have to Say about Climate Change?"
- A speaker at and the honoree of the Upton Forum Panel, entitled "The Ideas and Influence of Robert N. Stavins." Participants were Lynne Kiesling (Northwestern University), Sheila Olmstead (University of Texas, Austin) Yoram Bauman (CarbonWA), and Gernot Wagner (Environmental Defense Fund).

Support for HEEP fellows from Faust's Climate Change Solutions Fund

According to the *Harvard Gazette*: "Seven research projects aimed at confronting the challenge of climate change using the levers of law, policy, and economics, as well as public health and science, have been awarded grants in the inaugural year of President Drew Faust's Climate Change Solutions Fund."

Of the seven awarded, three were Harvard Environmental Economic Program fellows: **Rohini Pande**, Jisung Park, and James Stock.

Frankel on the strength of the dollar and what it means for the economy

Any movement in the exchange rate has pros and cons. When the dollar appreciates as much as it has over the last year, the obvious disadvantage is that the loss in competitiveness by U.S. producers hits exports and the trade balance. But if the dollar had fallen by a similar amount, there would be lamentations over the debasing of the currency.

Overall, the strong dollar is good news. This is because of the macroeconomic fundamentals behind it. Indeed textbook theories explain this episode unusually well. The U.S. economy has performed relatively strongly over the last year (compared to preceding history and to other countries). This is why the Fed is getting ready to raise interest rates (again, in contrast to the preceding six-year period of monetary easing and also compared to other countries).

American economic performance and the change in monetary policy are both excellent reasons for the strong dollar. These developments should be welcomed, taken as a whole, notwithstanding the effect on exports.

Nevertheless, if the dollar goes much higher, the Fed should hold off past June on its long-anticipated decision to raise short-term interest rates, to avoid a growth slowdown or even a descent into deflation. I believe the Fed would indeed respond in that appropriate way. Thirty years ago, the dollar reached such dizzying heights that central banks got together to sell it in exchange for European currencies and yen. It was the most dramatic intervention in the foreign exchange market since Nixon originally floated the dollar.
But 2015 is not 1985. Neither the U.S. authorities nor those in other G-7 countries will intervene in the foreign exchange market. Nor should they. The dollar's appreciation is nowhere near as big as it was back then and it is fully justified by economic fundamentals, unlike in 1985.

Jeffrey Frankel is the James W. Harpel professor of capital formation and growth at the Harvard Kennedy School. This op-ed was published in the *New York Times* on March 23, 2015.

The BRICS Group in Global Regulation: Leadership, Influence and Prospects

—Elizabeth Burns, MPP 15

What does the rise of the BRICS Group mean for the future of global regulation? Mihaela Papa, Lecturer in Sustainable Development at The Fletcher School, Tufts University, and Overseas Member of the Center for BRICS Studies at Fudan University, shared her perspective of the topic during a Regulatory Policy Program seminar on February 26th.

As she argues, projections about the future of global regulation have traditionally relied on two assumptions: that emerging powers are gradually socializing into the system in place ("rising from within"), and that the existing institutions are largely robust. However, the BRICS group (Brazil, Russia, India, China and South Africa) is an emerging global actor that is challenging both these assumptions. BRICS countries have demonstrated that they can pool their resources, capitalize on their joint influence, and exert pressure for institutional change.

What are the prospects for a BRICS-led global regulatory reform and its implications for U.S. foreign policy?

According to Papa, it is not yet clear how influential the BRICS group will be in global regulation. But by examining its history and analyzing its regulatory innovations, particularly its two new institutions (a development bank and currency reserve arrangement), we can learn several key insights.

BRICS is a political group that was formally established as an entity in 2009 (noting that South Africa joined in 2010, which changed the name from BRIC to BRICS). Making up a large share of the world's GDP (21.6 percent in 2014) and 46 percent of the world's population, the BRICS countries believe it is important that they have greater voice in global governance. In particular, they seek to support "a more democratic and just multi-polar world," promote "dialogue and cooperation" among their countries, and serve the "common interests of emerging market economies and developing countries," according to Papa. Overall, BRICS is dissatisfied with the existing global institutions and is seeking ways to reform them.

To make this reform, the BRICS group uses "forum shopping" — creating or using existing (partially) overlapping institutions for institutional change. In 2014, it created the New Development Bank (NDB) to make resources available for infrastructure and other projects in BRICS and other emerging economies. It also established the Contingent Reserve Arrangement (CRA) as a cushion against potential future financial crises. The BRICS countries have committed large amounts of capital to fund these institutions. However, it is still unclear whether these institutions will replace the World Bank and IMF, which currently have much more capital than the NDB and CRA. For example, the BRICS countries still engage with the World Bank and IMF even though they are dissatisfied with both institutions. Additionally, China continues to "shop" for other banks, committing capital to two other infrastructure banks outside of the NDB and CRA.

Perhaps, however, these BRICS institutions are only the tip of the iceberg as it relates to the influence the BRICS group can have. For example, between 2002 and 2012, intra-BRICS trade increased 922%, from US$ 27 to 276 billion, demonstrating that transactions are being facilitated behind the institutions. Moreover, BRICS is also taking several steps that suggest it could be strong in the future. For example, it has enlisted the support of academia and think tanks to figure out how the countries may be able to best work together. It has also "cemented" its place in the world by releasing publications and developing agreements with international organizations. The BRICS group thus has several strengths. Nevertheless, it also still faces several barriers, such as potential intra-BRICS conflicts, economic decline, or coalition disruption (such as India, Brazil, and South Africa breaking from group).

Therefore, the question still remains how BRICS will influence global regulation, or what the implications will be for U.S. foreign policy. It is worth noting, however, that the U.S. has not yet developed a proactive strategy for handling BRICS and is currently taking a reactive approach. Only time will tell how BRICS will influence global regulatory reform and U.S. foreign policy.

William C. Clark, Harvey Brooks Professor of International Science, Public Policy and Human Development and Co-Director of the Sustainability Science Program, moderated the presentation.

Senior Fellow Lewis Kaden , former vice-chairman of Citigroup, hosted Elizabeth Shuler, secretary-treasurer and CFO, AFL-CIO at his recent study group on Rebuilding the American Dream.