

COLUMBIA GLOBAL ENERGY DIALOGUE

ROUNDTABLE ON CLIMATE-ORIENTED ECONOMIC RECOVERY

OCTOBER 2020

On July 2, 2020, Columbia University's Center on Global Energy Policy (CGEP) and Harvard University jointly hosted a virtual roundtable on climate-oriented economic recovery and stimulus packages. Stakeholders included senior experts from universities and policy institutes as well as former high-level government officials.

Key questions discussed at the roundtable, held under the Chatham House Rule, included the following: What are the appropriate objectives of economic stimulus and recovery packages? What clean energy lessons from the 2009 American Reinvestment and Recovery Act are most relevant to the design of economic stimulus legislation today? What climate and energy policies are best suited to deliver on both economic stimulus and climate objectives? How does near-term climate-oriented stimulus complement medium-term climate policy and yield progress on long-term climate goals? The following is an overview of the discussion.

The Current Economic Crisis and the Role of Economic Stimulus

COVID-19 has sent economies around the world into crisis, including in the United States. The US unemployment rate at the time of the July 2020 meeting was above 11 percent. Forecasts for the economy over the next few years project a deeper and more prolonged downturn than during the Great Recession.

This work was made possible by support from the Center on Global Energy Policy. More information is available at <https://energypolicy.columbia.edu/about/partners>.



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The current economic crisis and dismal forecasts are due to two types of recessions currently impacting the economy. The first type is due to the reduction in economic activity caused by temporary shutdowns, which is likely to return relatively quickly following the public health crisis. The second type is due to the reductions in expenditures/demand across the economy, which is likely to persist long after the public health crisis and lockdowns are over.

Most economists agree that expansionary fiscal policy plays an important role in helping economies recover from recessions. The US government's response has already been larger than during the Great Recession, with trillions of spending already authorized from the US Congress and the Federal Reserve. Additional economic stimulus is likely to be needed over numerous years.

A political opportunity for enacting large fiscal stimulus legislation could present itself following the 2020 election, and participants agreed that using a portion of stimulus spending on climate-related activities can accomplish two priorities at once: creating near-term economic activity while furthering climate change mitigation and adaptation goals. However, traditionally, stimulus spending focuses disproportionately on construction and related activities, which are carbon intensive.

Looking Back at What Worked in the 2009 Recovery

The 2009 American Reinvestment and Recovery Act (ARRA) is viewed as the template for a potential climate-focused fiscal stimulus. Of over \$800 billion in total spending, ARRA provided \$90 billion in funding for renewable energy, energy efficiency, and low-carbon research and development. It was the largest single US government investment into climate and clean energy. Participants highlighted some aspects of ARRA's clean energy spending that worked well and other aspects that did not.

In addition to providing financial support for Americans, spending from ARRA spurred employment and contributed to advancing clean energy goals. Participants noted that stimulus funds could move quickly through established channels when programs that existed prior to ARRA were provided with additional funding, such as the Weatherization Assistance Program (WAP) and clean energy tax credits. These channels had well-understood rules and federal guidance and could rely on existing networks to expand the scope of the programs for job creation. Other successes of ARRA include the boosts for the domestic solar and wind industries and the initial funding for the Advanced Research Projects Agency-Energy (ARPA-E), which has made important strides in promoting clean energy innovation.

The discussion naturally focused primarily on areas for improvement. Participants discussed missteps of ARRA at length, the most notorious of which was Solyndra, the solar panel maker that received stimulus funds and then declared bankruptcy in 2011. Participants disagreed on the lessons to draw from the Solyndra experience. To some, the experience pointed to the importance of focusing stimulus spending on safe, proven programs to avoid the political blowback from the inevitable failures of riskier endeavors. Others stressed the importance of government investments in risky ventures to maximize long-term societal benefits and the need to improve messaging so that the public is better prepared for such failures.

ARRA also faced implementation hurdles, especially with newly created programs. For example, some of the loan guarantees and grant programs were complicated and took time for the private sector to comprehend. Private firms often found it difficult to obtain funds for which they were eligible, often due to a lack of capacity at government agencies or guidance from such agencies. Too often, subsidies were provided for activities that would have occurred anyway—one study found that 90 percent of subsidized efficient refrigerator purchases would have been made without government support.

Compliance burdens also hindered implementation. Such burdens included the prevailing wage and “Buy American” requirements, as well as preexisting local rules and regulations. Some firms complained of a significant reporting burden, needing to send multiple reports to multiple agencies. On the administrative side, government agencies faced problems staffing up rapidly enough to meet the new administrative demand at a time when government employees were being laid off due to the recession. Around \$700 million was returned to the federal government from state and local jurisdictions. Moreover, one participant noted that certain programs funded by ARRA were “gutted” once funding ran out, creating unwanted economic shocks.

While some of these lessons can help policy makers craft a more successful climate-oriented stimulus in response to the COVID-19 crisis, participants also noted the important differences between 2009 and today, including the following:

- **The scale of the clean energy industry:** Clean energy is at a very different stage of development. The United States has 4 times the wind capacity and 100 times the solar capacity that it did in 2009, and therefore the clean energy sector can absorb significantly more stimulus than it could then. The relative maturity of clean energy technologies today may also imply that stimulus can focus more on infrastructure rather than bringing new technologies to market.
- **The crises have hit different parts of the economy:** Participants noted the importance of targeting stimulus spending at sectors most in need and/or that can rapidly scale and accommodate new workers. The 2009 crisis hit most sectors of the economy. The COVID-19 crisis has hit certain sectors particularly hard (e.g., hospitality, restaurants). This could create challenges for climate-oriented stimulus if unemployed workers are not well suited for jobs related to clean energy. On the other hand, the fossil fuel industry has been hit hard as well, and the skill set of those workers often closely matches the needs of clean energy workers.
- **The COVID-19 crisis will be much more global in nature:** The current economic crisis may be even more global in nature than the Great Recession, which provides the United States with opportunities and responsibilities to play international leadership roles.
- **The impacts of climate change are larger today:** After a decade of continued warming and other climatic changes, the need for spending on adaptation to climate change is heightened.

- **No recent major energy legislation:** In 2009, Congress passed two major pieces of energy legislation in the previous four years. That provided numerous opportunities to leverage existing programs (e.g., ARPA-E). Congress has passed no similar energy legislation in the past decade, which could make leveraging existing programs more difficult.
- **Debt financing is easier today:** Participants noted that macroeconomic metrics (e.g., lower real interest rates) point to more fiscal maneuverability today than in 2009. Nevertheless, one participant emphasized the continued value of the principle of paying for permanent programs while leveraging debt to pay for temporary programs.

Finally, participants noted that an important lesson from 2009 was that despite the need for stimulus over many years, the Obama administration was able to pass only one stimulus bill before political will disappeared. Therefore, even though stimulus is likely to be needed for years and Congress can, in theory, pass multiple rounds of stimulus—including two through reconciliation bills in 2021 (one for each fiscal year)—policy makers should also be prepared for the rapid erosion of political support.

Recommendations for a Climate-Oriented Stimulus

A climate-friendly stimulus package could include significant investments in clean energy technologies, public transit, building retrofits, and other climate priorities (similar to ARRA but at a much larger scale). However, political prospects of such legislation likely depend on a climate-friendly presidential administration and Congress.

Broadly, participants noted the goals of a climate-oriented stimulus should be to facilitate investments, grants, and loans that spur near-term economic activity while simultaneously achieving climate change mitigation or adaptation goals, such as buying down the cost of low-carbon energy sources in the long term.

The construction of various forms of clean energy installations may be particularly well suited for stimulus due to relatively large upfront costs and minimal ongoing costs down the road. With significant installation labor required, such investments also have some of the highest job multipliers per dollar of investment. Participants noted the potential benefits of funding for wind, solar (including repowering, where existing sites are upgraded with more efficient panels), geothermal, electric vehicle infrastructure, and industrial decarbonization. Other promising spending targets were raised as well, including investments in climate resilience, forest fire suppression, grants for water efficiency, and fugitive methane avoidance. Finally, participants emphasized the need to consider technologies in their infancy today that will be critical to long-term decarbonization, such as direct air capture, hydrogen, and long-duration battery storage; investments in such technologies could help the United States become a global leader in these emerging industries.

While most of the discussion relied on the premise that, as in 2009, economic recovery will be the primary lens through which policy makers would evaluate spending options, one participant noted that given the limited time to reduce national emissions to net zero, climate priorities should be an equally important lens for evaluation.

Participants noted that while sometimes the goals of economic recovery and climate progress work in concert, sometimes they conflict. For example, retiring coal plants is seen as one of the best ways to reduce air pollution and carbon, but doing so does not stimulate the economy.

Key recommendations for climate-oriented stimulus highlighted by participants include the following:

- **Rebuild a better and more just economy:** While the crisis is inflicting considerable damage on the country, it also presents opportunities to rebuild a better and more resilient economy in its wake. Underserved communities have disproportionately been affected by COVID-19 and should be a focus of economic recovery. Rather than just counting the number of jobs, policy makers should pay attention to the type and nature of jobs as well as their outcomes. One participant emphasized that a major failure of the response to the Great Recession was in not developing increased resilience for the next crisis. In that vein, this crisis may present the opportunity to form new organizations and institutions that help ensure the country is not again caught unprepared, particularly as climate-related shocks are becoming increasingly common. For example, the Federal Reserve should not be the only institution that has the authority and capacity to rapidly respond in a future crisis.
- **Strategic messaging:** Stimulus will inevitably involve successes and failures. Regardless of the degree of risky investments contained within stimulus (participants' disagreement on this issue is noted earlier), policy makers should prepare a strong messaging strategy to support and defend the legislation.
- **Get the money local:** Providing funding to states, cities, and other local jurisdictions is a valuable approach to achieving climate and economic recovery goals. After all, many shovel-ready climate projects already exist at the subnational level, and these governments better understand local conditions (and may therefore be better positioned to distribute funds).
- **Promote a just clean energy transition:** Some industries, like coal, will need to be phased out rapidly in order to meet climate targets. Stimulus funding should include resources to ease the transition for the workers and communities that rely on these industries.
- **Stimulus spending should complement future comprehensive climate policies:** Absent climate policies that directly address emissions, such as emissions pricing and standards, spending has a limited ability to decarbonize the US economy. Some participants noted that the evaluation of stimulus spending should therefore aim to complement rather than substitute for these necessary future climate policies, as well as consider the overlap with existing policies.
- **Consider political economy:** Building on the previous point, some participants noted that the success of a climate-oriented stimulus should be evaluated based on not only the emissions reductions achieved by spending but also whether the stimulus lays the

foundation for future climate policies by building political support. For example, green investments that create jobs and economic opportunities in regions reliant on fossil fuels could reduce opposition to future climate initiatives.

Summary and Path Forward

Fiscal stimulus is critical for economic recovery. Large investments in clean energy and other mitigation and adaptation priorities are needed to address the risks of climate change. A climate-oriented stimulus provides clear opportunities to simultaneously accomplish economic recovery and climate goals.

Perhaps unsurprisingly, the discussion provided a range of ideas but no consensus about the exact nature of the desired stimulus spending or the degree of the political opportunity in the coming years.

CGEP and Harvard plan to continue to organize convenings and scholarship on this important topic.

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