

# **Loomis Chaffee Invitational Debate Tournament**

**January 17, 2016**

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## **Resolved: The Paris Climate Conference should be considered a failure.**

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### **Nations Approve Landmark Climate Accord in Paris**

The New York Times, By CORAL DAVENPORT, DEC. 12, 2015

LE BOURGET, France — With the sudden bang of a gavel Saturday night, representatives of 195 nations reached a landmark accord that will, for the first time, commit nearly every country to lowering planet-warming greenhouse gas emissions to help stave off the most drastic effects of climate change.

The deal, which was met with an eruption of cheers and ovations from thousands of delegates gathered from around the world, represents a historic breakthrough on an issue that has foiled decades of international efforts to address climate change.

Traditionally, such pacts have required developed economies like the United States to take action to lower greenhouse gas emissions, but they have exempted developing countries like China and India from such obligations.

The accord, which United Nations diplomats have been working toward for nine years, changes that dynamic by requiring action in some form from every country, rich or poor.

“This is truly a historic moment,” the United Nations secretary general, Ban Ki-moon, said in an interview. “For the first time, we have a truly universal agreement on climate change, one of the most crucial problems on earth.”

President Obama, who regards tackling climate change as a central element of his legacy, spoke of the deal in a televised address from the White House. “This agreement sends a powerful signal that the world is fully committed to a low-carbon future,” he said. “We’ve shown that the world has both the will and the ability to take on this challenge.”

Scientists and leaders said the talks here represented the world’s last, best hope of striking a deal that would begin to avert the most devastating effects of a warming planet. Mr. Ban said there was “no Plan B” if the deal fell apart. The Eiffel Tower was illuminated with that phrase Friday night.

The new deal will not, on its own, solve global warming. At best, scientists who have analyzed it say, it will cut global greenhouse gas emissions by about half enough as is necessary to stave off an increase in atmospheric temperatures of 2 degrees Celsius or 3.6 degrees Fahrenheit. That is the point at which, scientific studies have concluded, the world will be locked into a future of devastating consequences, including rising sea levels, severe droughts and flooding, widespread food and water shortages and more destructive storms.

But the Paris deal could represent the moment at which, because of a shift in global economic policy, the inexorable rise in planet-warming carbon emissions that started during the Industrial Revolution began to level out and eventually decline.

At the same time, the deal could be viewed as a signal to global financial and energy markets, triggering a fundamental shift away from investment in coal, oil and gas as primary energy sources toward zero-carbon energy sources like wind, solar and nuclear power.

“The world finally has a framework for cooperating on climate change that’s suited to the task,” said Michael Levi, an expert on energy and climate change policy at the Council on Foreign Relations. “Whether or not this becomes a true turning point for the world, though, depends critically on how seriously countries follow through.”

Just five years ago, such a deal seemed politically impossible. A similar 2009 climate change summit meeting in Copenhagen collapsed in acrimonious failure after countries could not unite around a deal.

Unlike in Copenhagen, Foreign Minister Laurent Fabius of France said on Saturday, the stars for this assembly were aligned.

The changes that led to the Paris accord came about through a mix of factors, particularly major shifts in the domestic politics and bilateral relationships of China and the United States, the world’s two largest greenhouse gas polluters.

Since the Copenhagen deal collapsed, scientific studies have confirmed that the earliest impacts of climate change have started to sweep across the planet. While scientists once warned that climate change was a problem for future generations, recent scientific reports have concluded that it has started to wreak havoc now, from flooding in Miami to droughts and water shortages in China.

In a remarkable shift from their previous standoffs over the issue, senior officials from both the United States and China

praised the Paris accord on Saturday night.

Representatives of the “high-ambition coalition,” including Foreign Minister Tony de Brum of the Marshall Islands, left, wore lapel pins made of dried coconut fronds, a symbol of Mr. de Brum’s country. Credit Jacky Naegelen/Reuters Secretary of State John Kerry, who has spent the past year negotiating behind the scenes with his Chinese and Indian counterparts in order to help broker the deal, said, “The world has come together around an agreement that will empower us to chart a new path for our planet.”

Xie Zhenhua, the senior Chinese climate change negotiator, said, “The agreement is not perfect, and there are some areas in need of improvement.” But he added, “This does not prevent us from marching forward with this historic step.” Mr. Xie called the deal “fair and just, comprehensive and balanced, highly ambitious, enduring and effective.”

Negotiators from many countries have said that a crucial moment in the path to the Paris accord came last year in the United States, when Mr. Obama enacted the nation’s first climate change policy — a set of stringent new Environmental Protection Agency regulations designed to slash greenhouse gas pollution from the nation’s coal-fired power plants. Meanwhile, in China, the growing internal criticism over air pollution from coal-fired power plants led President Xi Jinping to pursue domestic policies to cut coal use.

In November 2014 in Beijing, Mr. Obama and Mr. Xi announced that they would jointly pursue plans to cut domestic greenhouse gas emissions. That breakthrough announcement was seen as paving the way to the Paris deal, in which nearly all the world’s nations have jointly announced similar plans.

The final language did not fully satisfy everyone. Representatives of some developing nations expressed consternation. Poorer countries had pushed for a legally binding provision requiring that rich countries appropriate a minimum of at least \$100 billion a year to help them mitigate and adapt to the ravages of climate change. In the final deal, that \$100 billion figure appears only in a preamble, not in the legally binding portion of the agreement.

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“We’ve always said that it was important that the \$100 billion was anchored in the agreement,” said Tosi Mpanu-Mpanu, a negotiator for the Democratic Republic of Congo and the incoming leader of a coalition known as the Least Developed Countries coalition. In the end, though, they let it go.

Despite the historic nature of the Paris climate accord, its success still depends heavily on two factors outside the parameter of the deal: global peer pressure and the actions of future governments.

The core of the Paris deal is a requirement that every nation take part. Ahead of the Paris talks, governments of 186 nations put forth public plans detailing how they would cut

carbon emissions through 2025 or 2030.

Those plans alone, once enacted, will cut emissions by half the levels required to stave off the worst effects of global warming. The national plans vary vastly in scope and ambition — while every country is required to put forward a plan, there is no legal requirement dictating how, or how much, countries should cut emissions.

Thus, the Paris pact has built in a series of legally binding requirements that countries ratchet up the stringency of their climate change policies in the future. Countries will be required to reconvene every five years, starting in 2020, with updated plans that would tighten their emissions cuts.

Countries will also be legally required to reconvene every five years starting in 2023 to publicly report on how they are doing in cutting emissions compared to their plans. They will be legally required to monitor and report on their emissions levels and reductions, using a universal accounting system.

That hybrid legal structure was explicitly designed in response to the political reality in the United States. A deal that would have assigned legal requirements for countries to cut emissions at specific levels would need to go before the United States Senate for ratification. That language would have been dead on arrival in the Republican-controlled Senate, where many members question the established science of human-caused climate change, and still more wish to thwart Mr. Obama’s climate change agenda.

So the individual countries’ plans are voluntary, but the legal requirements that they publicly monitor, verify and report

what they are doing, as well as publicly put forth updated plans, are designed to create a “name-and-shame” system of global peer pressure, in hopes that countries will not want to be seen as international laggards.

That system depends heavily on the views of the future world leaders who will carry out those policies. In the United States, every Republican candidate running for president in 2016 has publicly questioned or denied the science of climate change, and has voiced opposition to Mr. Obama’s climate change policies.

In the Senate, Mitch McConnell, the Republican leader, who has led the charge against Mr. Obama’s climate change agenda, said, “Before his international partners pop the champagne, they should remember that this is an unattainable deal based on a domestic energy plan that is likely illegal, that half the states have sued to halt, and that Congress has already voted to reject.”

There were few of those concerns at the makeshift negotiations center here in this suburb north of Paris. The delegates rose to their feet in applause to thank the French delegation, which drew on the finest elements of the country’s longstanding traditions of diplomacy to broker a deal that was acceptable to all sides.

France’s European partners recalled the coordinated Nov. 13 terrorist attacks in Paris, which killed 130 people and threatened to cast a shadow over the negotiations. But, bound by a collective good will toward France, countries redoubled their efforts.

“This demonstrates the strength of the French nation and makes us Europeans all proud of the French nation,” said Miguel Arias Cañete, the European Union’s commissioner for energy and climate action.

Yet amid the spirit of success that dominated the final hours of the negotiations, Mr. Arias Cañete reminded delegates that the accord was the beginning of the real work. “Today, we celebrate,” he said. “Tomorrow, we have to act. This is what the world expects of us.”

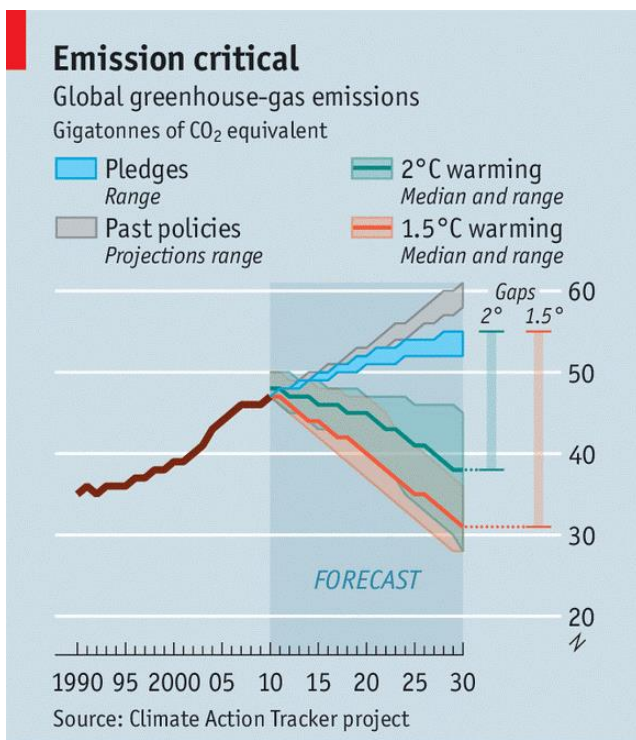
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## The Paris agreement will not stabilise the climate

The Economist, Dec 19th 2015 | From the print edition

...but the efforts it makes possible could still achieve a lot

“THE test of a first-rate intelligence”, F. Scott Fitzgerald, a sometime Parisian, once wrote, “is the ability to hold two



Economist.com

opposing ideas in mind at the same time.” By this standard, the 195 countries that gathered outside Paris in the two weeks running up to December 12th to negotiate a new agreement on climate change have to be counted very bright indeed. It is vital, they declared, that the world’s temperature does not climb much more than 1.5°C above pre-industrial levels; and yet they simultaneously celebrated a new climate agreement that got nowhere close to preventing such a rise.

The individual pledges that nations made going into the Paris talks—which they will now be expected, though not compelled, to honour—are estimated to put the world on course for something like 3°C of warming. In the non-linear universe of climate change, 3°C represents a lot more than twice as much risk and harm as 1.5°C; it could well, for instance, be the difference between the Greenland ice cap staying put and the sea-level rising, over centuries, by six metres.

For someone to propose means that fall so far short of their purported ends might seem like cynicism or stupidity. Sure enough, some of the keenest devotees to action on climate change have accused the Paris negotiators of both. In fact, the deal really did demonstrate collective intelligence.

The nations of the world know that they cannot suddenly force each other to stop emitting greenhouse gases, because fossil fuels are fundamental to the way that economies work. But many countries also want to reduce the risks posed by climate change and know that they need to find ways to work together. The Paris agreement offers a range of mechanisms to make this happen (see article).

Countries now have a framework to ensure that each is doing what it said it would; they have pledged more money to

help the poorest and most vulnerable countries adapt to the effects of climate change; they have a task force for looking at the issues raised by those who cannot adapt and need to find new places to live; and they have the basis for new carbon-pricing deals. They have also agreed that big developing countries, which were largely spared by earlier deals, should consider making a greater contribution.

The Paris agreement provides a timetable for increasing the ambition of countries' emissions pledges as technology improves and experience accumulates. And, outside the main negotiations, Paris saw a commitment from rich countries and individuals to undertake a lot more research into new sources of clean energy. All this has signalled to investors that both developed and developing countries intend to act. This will not in itself bring about the end of the era of fossil fuels; it is, though, a step in that direction.

But there are a daunting number of further steps. Some relate to administrative capacity. In many poor countries the ability to assess action on climate change and promulgate effective adaptation is inadequate; it must be nurtured.

Others relate to the use of private capital. If investors are discouraged from bankrolling fossil fuels, they are under no obligation to redirect their money to clean energy: they may prefer not to invest in energy at all. Governments will need to structure their power markets, and plan for their growth, in ways that make sense to long-term backers. Without the lure of profits in low-carbon energy, climate action could result in hundreds of millions of people who now lack modern energy services being left in the darkness for longer.

By the same token, increased R&D on its own is a necessary condition for progress, but not a sufficient one. Backers need to ensure that it leads to innovative solutions which can be installed on a commercial scale, rather than becoming a self-perpetuating academic exercise (as with international efforts on nuclear fusion).

The worst risk is that a justified sense of accomplishment will engender a debilitating complacency. The Paris agreement drew on impressive reserves of diplomatic savoir faire and international solidarity. But if it is to live up to its promise, countries will have to make full use of the mechanisms for ratcheting up emissions cuts and accelerating adaptation for decades to come. Fitzgerald's example of opposing ideas was the ability "to see that things are hopeless and yet be determined to make them otherwise". Sustained determination could be the difference between an agreement that deals with climate change and one that turns out to be another wasted opportunity.

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## **Paris Climate of Conformity**

The Wall Street Journal, Editorial, Dec. 13, 2015 6:08 p.m. ET

It pays to be skeptical of politicians who claim to be saving the planet.

The moment to be wariest of political enthusiasms is precisely when elite opinion is all lined up on one side. So it is with the weekend agreement out of Paris on climate policy, which President Obama declared with his familiar modesty "can be a turning point for the world" and is "the best chance we have to save the one planet that we've got."

Forgive us for looking through the legacy smoke, but if climate change really does imperil the Earth, and we doubt it does, nothing coming out of a gaggle of governments and the United Nations will save it. What will help is human invention and the entrepreneurial spirit. To the extent the Paris accord increases political control over human and natural resources, it will make the world poorer and technological progress less likely.

The climate confab's self-described political success is rooted in a conceit and a bribe. The conceit is that the terms of the agreement will have some tangible impact on global temperatures. The big breakthrough is supposed to be that for the first time developing and developed countries have committed to reducing carbon emissions. But the commitments by these nations are voluntary with no enforcement mechanism.

China (the No. 1 CO<sub>2</sub> emitter) and India (No. 3 after the U.S.) have made commitments that they may or may not honor, depending on whether they can meet them without interfering with economic growth. If the choice is lifting millions out of poverty or reducing CO<sub>2</sub>, poverty reduction will prevail—as it should.

No less than the supposedly true global-warming believers of Europe are also happy about voluntary commitments because Paris liberates them from the binding targets of the Kyoto Protocol of 1997. Germany's high energy costs in particular have been driving companies offshore thanks to its renewable energy costs and mandates.

But no one is happier than President Obama, who would have to submit a binding treaty to the Senate for ratification. As we have learned from the Iran nuclear deal and so much else, Mr. Obama is not into winning democratic consent for his policy dreams. Mr. Obama plans to use Paris as a stick to beat Republicans even as he ducks a vote in Congress. We doubt the Paris climate deal would get 40 Senate votes once Democrats in Ohio, Colorado or North Dakota were forced to debate the costs.

Mr. Obama's U.S. CO<sub>2</sub>-reduction targets are fanciful in any case, short of a major technological breakthrough. The President promises that the U.S. will reduce carbon emissions by 26% to 28% from 2005 levels by 2025, but the

specific means he has proposed to get there would only yield about half that. And that's assuming none of Mr. Obama's unilateral regulatory policies are declared illegal by U.S. courts.

As for the bribe, rich countries in Paris bought the cooperation of the developing world by promising to send \$100 billion a year in climate aid. So the governments of the West are now going to dun their taxpayers to transfer money to the clean and green governments run by the likes of Zimbabwe's Robert Mugabe. We can't wait to see New York's Chuck Schumer make the case on the Senate floor for American aid to China so it can become more energy efficient and economically competitive.

Even if a Democratic Congress made these bribes politically possible, they would do little to ease the consequences of climate change. The world's poor can best cope with climate harm if they are richer, which requires faster economic growth. Yet everything we know about economic development is that foreign aid retards growth when it expands the reach of Third World governments. Poor countries won't be helped by subsidies for solar cells delivered through the World Bank.

The same lesson goes for the developed world, by the way. We still recall the George W. Bush economic adviser who told us in 2006 that subsidies for cellulosic ethanol were justified because a breakthrough was "just around the corner." He said the problem was that Congress's research grants were distorted by political earmarks.

Of course they were. Congress took Mr. Bush's invitation and force-fed ethanol mandates into law despite the lack of available technology to meet them. A decade later cellulosic ethanol is still around the corner.

Which brings us to the development on the fringes of Paris that might do some good. Bill Gates is hitting up his fellow billionaires to pay for research into energy alternatives to fossil fuels. This is a tacit admission that the technology doesn't exist to make alternatives cost-effective no matter how many subsidies governments offer. If carbon energy's efficiency and wealth creation are going to be displaced, the world will need advances in battery storage and nuclear energy, among other things.

The grandiose claims of triumph in Paris represent the self-interest of a political elite that wants more control over the private economy in the U.S. and around the world. These are the last people who will save the planet.

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## **Obama, Once a Guest, Is Now a Leader in World Talks**

The New York Times, By JULIE HIRSCHFELD DAVIS DEC. 12, 2015

WASHINGTON — Six years ago, President Obama came away from a round of global climate talks bitter and frustrated, having been reduced to personally chasing other world leaders around a Copenhagen conference center and bursting uninvited into a meeting with them to salvage a pact that left many disappointed.

On Saturday, Mr. Obama strode triumphantly into the Cabinet Room of the White House to declare victory in his quest for an ambitious climate agreement, after 195 nations reached an accord in a Paris suburb that commits them to reducing greenhouse gas emissions.

"We met the moment," Mr. Obama said. "Together, we've shown what's possible when the world stands as one."

For Mr. Obama, the agreement represents a legacy-shaping success, destined to join his health care law in the annals of his most lasting achievements.

It also reflects difficult lessons Mr. Obama learned about diplomacy and global leadership along the way. In Copenhagen, he was a first-term president meeting "the stark reality of just how complicated and fractured this issue was on the global stage," a senior administration official said on Saturday.

Mr. Obama's experience there "underscored that if we were going to make real progress on this, we were going to have to be patient and develop a strategy" both at home and globally.

The president, the official said, speaking on the condition of anonymity to discuss the issue candidly, "deliberately and ambitiously pushed the envelope on climate." And on Saturday, Mr. Obama said the Paris agreement had been possible in large part because he had done so. This year, he issued regulations to slash carbon pollution from power plants, and last year he forged an emissions reduction agreement with President Xi Jinping of China that encouraged other nations to set their own climate goals.

"We've transformed the United States into the global leader in fighting climate change," Mr. Obama said on Saturday, referring to the "chaotic" Copenhagen talks. "We've set the first-ever nationwide standards to limit the amount of carbon pollution power plants can dump into the air our children breathe."

Still, like the Affordable Care Act, Mr. Obama's climate agenda faces bitter opposition from Republicans, with all of the party's presidential candidates pledging to roll back the agreement if elected.

Republicans have tried to block the climate plan legislatively, and more than half of the states are challenging its legality in court.

In a statement, Hillary Clinton, a Democratic presidential candidate, hailed the climate agreement and praised Mr. Obama for helping to deliver it. “We cannot afford to be slowed by the climate skeptics or deterred by the defeatists who doubt America’s ability to meet this challenge,” Mrs. Clinton said.

But Senator Bernie Sanders of Vermont, who is also seeking the Democratic nomination, said the pact “goes nowhere near far enough.”

Mr. Obama, while calling the agreement “the best chance we’ve had to save the one planet that we’ve got,” conceded that the results were not perfect.

“Even if all the initial targets set in Paris are met, we’ll only be part of the way there when it comes to reducing carbon from the atmosphere, so we cannot be complacent,” Mr. Obama said. “The problem is not solved because of this accord, but make no mistake: The Paris agreement establishes the enduring framework the world needs to solve the climate crisis.”

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## **Obama the Unilateral Climate Warrior**

The Wall Street Journal, By BENNY PEISER, Dec. 21, 2015 7:03 p.m. ET

The U.S. keeps soldiering on, but the toothless Paris deal will let EU nations end harmful carbon policies.

Amid the media’s elation over the United Nations climate deal reached in Paris on Dec. 12, one significant outcome has been overlooked. The European Union failed to achieve its main objective, namely that the agreement adopt carbon-dioxide mitigation commitments that are “legally binding on all parties.”

While this may appear to be a major setback, it liberates Europe from the restrictions of the Kyoto Protocol—which runs out in 2020—and opens the way for more flexible and less damaging policies.

During the Paris negotiations, European Climate Commissioner Miguel Arias Cañete warned that the EU “cannot make the mistake we made in Kyoto” where “all the big emitters were outside the legally binding agreement.” For Europe, the Kyoto Protocol has forced EU states to adopt unilateral, and disastrously costly, decarbonization policies. With their manufacturers rapidly losing ground to international competition, governments are increasingly concerned about the threat high energy prices pose to Europe’s industrial base.

The economic damage of unilateral climate policy is now widely acknowledged. In September 2014, then-EU Energy Commissioner Günther Oettinger warned that “If there is no binding commitment from countries such as India, Russia, Brazil, the U.S., China, Japan and South Korea, whose governments are responsible for some 70% of global emissions,” it would be a mistake for EU states to bind only themselves. “If we are too ambitious and others do not follow us, we will have an export of production and more emissions outside the EU.”

EU leaders followed Mr. Oettinger’s prudent counsel. While the 28-nation bloc offered to cut carbon emissions by 40% below 1990 levels by 2030, its pledge, announced in October 2014, was and remains conditional on all major emitters adopting legally binding targets.

In the run-up to the Paris meeting, the EU warned the Obama administration that, in order to avoid another Kyoto-fiasco, any new accord would have to be based on legally binding pledges by all major economies to cut carbon emissions. U.S. Secretary of State John Kerry, clearly concerned about opposition to an international climate “treaty” in the U.S. Senate, ruled out Europe’s demand. In contrast to the Kyoto Protocol, the Paris accord is thus based on voluntary pledges of intentions determined and monitored by individual governments in line with their national interests.

Without legally binding decarbonization caps, there will be strong opposition within the EU to making its own conditional pledges legally binding. Poland and other poor states in Eastern and Central Europe are widely expected to rebel against accepting unilateral policies that have undermined Europe’s competitiveness. The governments of Poland, Hungary, the Czech Republic, Slovakia, Romania, Bulgaria, Latvia and Lithuania are opposed to adopting any new carbon targets under these circumstances. Even a number of West European states will be extremely reluctant to continue Kyoto-type unilateralism.

The new conservative government in Warsaw has already indicated that it will reject the EU’s 2030 pledge in the absence of a globally binding climate deal. Poland, which depends on coal for nearly 90% of its power generation, has taken a hard line on EU climate policy after the Law and Justice party took power in October. On Nov. 30, Prime Minister Beata Szydlo said in her opening statement at the Paris conference that Poland would not endorse any policies that are not fair and globally binding.

EU leaders met in Brussels soon after the Paris agreement, and they called on environment ministers and the European Commission to assess its policy implications. At the next EU summit, in March 2016, conflicting interpretations and assessments will pit Western European against Eastern European member states. It is highly likely that the expected

deadlock will delay any decision on the EU's post-Kyoto policy.

In any case, the EU would only be able to make its 40% emissions reduction pledge for 2030 legally binding if all member states accepted new, nationally binding carbon-dioxide targets under a newly negotiated "burden sharing mechanism." After Paris, the chances of the EU repeating its Kyoto mistake and adopting new unilateral carbon-dioxide restrictions are close to zero.

Still, the EU is not going to renege on its Paris pledge. A more likely approach from Brussels will be a fudge: EU leaders may agree to make their 40% pledge binding, but not at national levels.

Such an exit strategy would emulate the EU's renewable-energy policy for 2030, which—while being called a EU-wide and binding target—does not oblige members states to adopt any legally binding renewable energy targets domestically. And since the 27% EU-wide renewables target by 2030 is unenforceable, no country will be punished for adopting or failing to meet any target.

The toothless nature of the Paris agreement finally allows EU member states to abandon unilateral decarbonization policies that have damaged Europe's economies and its international competitiveness. Under such circumstances, the unconditional climate policies of President Obama would be left out in the cold. The U.S. administration has pledged to cut carbon emissions by 26%-28% by 2025, no matter what China, India and the rest of the world do in coming decades.

In contrast to Europe's conditional pledge, Mr. Obama's go-it-alone policy is unconditional. For the first time, it would appear that Europe's climate policy is moving in a more rational and realistic direction than that of North America.

Mr. Peiser is the director of the London-based Global Warming Policy Forum.

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## **Key to Success of Climate Pact Will Be Its Signals to Global Markets**

The New York Times, By CORAL DAVENPORTDEC. 10, 2015

LE BOURGET, France — As diplomats here work through the final points of a sweeping new climate change accord, experts said the ultimate measure of success of the agreement will be whether it sends a clear signal to global financial investors that they should move money away from fossil fuels and toward clean-energy sources such as wind and solar power. Without that signal, there is little chance that emissions will be reduced enough to stave off the most catastrophic impacts of global warming.

The appeal to investors remained a question mark early Friday morning after Laurent Fabius, the French foreign minister who is presiding over the United Nations conference on climate change, released a near-final draft text.

It addressed many sticking points of the talks, and largely cleared the way for a final deal that accomplishes many of the goals that climate-policy advocates say are necessary to start reducing global emissions. But the draft dodges the issue of how countries would monitor, verify and report their levels of planet-warming pollution.

The impact of the deal hangs on that one section, experts say, because without it, no one will be able to trust that governments are doing what they say they will do to cut emissions. Without that certainty, investors will be skittish about shifting to renewable energy.

"It's a question of what kind of signal you give to investors and people who decide where the dollars go," said Nathaniel Keohane, an economist with the Environmental Defense Fund, an advocacy group, and a former adviser to the Obama administration. "They decide whether to invest in one kind of electric power plant or another."

Hundreds of negotiators have spent nearly two weeks in this compound of tents on the outskirts of Paris hammering out countless details in the substance of a deal, which could be passed into international law as soon as Friday night.

The emerging pact would require countries to enact plans to cut their fossil fuel emissions, set up a system for rich countries to pay for poor countries to mitigate and adapt to the ravages of climate change, and establish a legally binding timetable for countries to ratchet up the strength of their emissions plans over time.

Such a transition would fundamentally transform the energy system that has powered the global economy since the Industrial Revolution. Fossil fuels, including coal, oil and gas, now make up about 80 percent of the world's energy mix. The combined stock value of the world's coal, oil and gas companies is about \$5 trillion. By comparison, stocks related to renewable energy are valued at about \$300 billion, according to Bloomberg New Energy Finance, a research firm.

The questions about transparency will define Friday's negotiations.

At the heart of the emerging deal are pledges by 186 countries outlining ways in which they will lower their greenhouse gas emissions through 2030. When combined, those pledges would still reduce planet-warming emissions by about half as much as is necessary to stave off a temperature increase above the catastrophic limit of 2 degrees Celsius, or 3.6 degrees Fahrenheit — the point at which the planet will be locked in to devastating climate consequences.

However, poor and vulnerable countries, including low-lying island nations that are already experiencing the effect of sea level rise, have successfully pushed for the Paris deal to include language that would set an aspirational, although not legally binding, goal of cutting emissions enough to avoid an atmospheric warming of 1.5 degrees Celsius.

Reaching that goal would prevent further devastation but require far more rapid and stringent economic action than governments have pledged. The new deal would require countries to come back to the table every five years and offer up new, stronger emissions reductions plans.

“The text is trending towards the better than half-full outcome of what’s been on the table — which would be historic,” said Andrew Deutz, director of international government relations at the Nature Conservancy.

“There are still details to be worked out on transparency and reporting, on markets, and on finance,” he said, as well as sorting out the different obligations of developed countries compared with developing ones. “The deal isn’t done yet, but we can see a clear path to success.”

By early Friday morning, negotiators were hammering out language that would require countries to monitor, verify and report on how well they are reducing their emissions compared with their publicly stated targets.

Secretary of State John Kerry is the chief advocate at the talks for aggressive transparency measures, and has been pushing to create a regime in which all government numbers on emissions reduction are made publicly available, and subject to verification by an outside body of experts — a sort of carbon emissions auditor.

He said in an interview this week that he believes the final deal will succeed in creating that all-important signal to business markets.

“There will be a sea change,” he said. “You will see more money begin following those outcomes, flowing to wind and solar, because there’s trillions of dollars in profit to be made.”

While the United States, the world’s second-largest carbon polluter, is pushing for strong transparency measures, China and India, the world’s largest and third-largest polluters, still oppose those proposals.

They demand that the Paris deal reflect a division of responsibility inscribed in the 1997 Kyoto Protocol, which created lighter emissions monitoring and verification requirements for developing economies.

“We already have a thorough system of accounting,” said Ashok Lavasa, secretary of India’s Ministry of Environment, Forest and Climate Change. Of the proposal for an outside emissions auditor, he said, “We don’t understand the need for a superinspector going around and seeing what we’re doing.”

For now, the language in the draft climate change pact is too vague to please either side.

Unless it is refined, the final deal may be too weak to influence investors to put money into solar companies rather than coal companies.

“In the Paris agreement, corporations will need to see these numbers,” said Robert Stavins, director of the environmental economics program at Harvard University. “That affects what they put in their spreadsheets, their decision-making.”

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## Paris Climate Accord Is a Big, Big Deal

The New York Times, Thomas L. Friedman Thomas L. Friedman DEC. 16, 2015

PARIS — I had low expectations for the U.N. climate meeting here and it met all of them — beautifully. I say that without cynicism.

Any global conference that includes so many countries can’t be expected to agree on much more than the lowest common denominator. But the fact that the lowest common denominator is now so high — a willingness by 188 countries to offer plans to steadily and verifiably reduce their carbon emissions — means we still have a chance to meet what scientists say is our key challenge: to avoid the worst impacts of global warming that we cannot possibly manage and to manage those impacts that we can no longer avoid. That is a big, big deal.

Many leaders had a hand in it, but it would not have happened without the diplomacy of President Obama and John Kerry.

Hat’s off, because this keeps alive the hope of capping the earth’s warming to 2 degrees Celsius, or 3.6 Fahrenheit, above the level that existed at the dawn of the Industrial Revolution — the rough redline scientists have drawn beyond which “global weirding” will set in and the weather will most likely get really weird and unstable. We’re already almost halfway to passing that redline.

The only important holdout in the world to this deal is the U.S. Republican Party. I wouldn’t care about such cave men — as one sign borne by a Paris demonstrator said, “Dinosaurs didn’t believe in climate change either,” and it didn’t end well for them — except that one of these knuckleheads could be our next president and mess this up.



The G.O.P. should take the wise counsel of Andy Karsner, who was George W. Bush's assistant energy secretary and one of his climate negotiators, and use the Paris deal to build a bridge back to constructive engagement on the subject. The G.O.P. can plausibly argue, said Karsner, that it was Bush who, in 2007, created the "major economies" strategy to address climate change through precisely the kind of market-enabled, voluntary national targets adopted in Paris.

"The price of getting this issue behind us may never again be this cheap," Karsner said of the G.O.P. "Congressional leaders need to evaluate the opportunity they have to reconnect with mainstream voters, scientific, civic and business leaders, geopolitical strategists and most anyone under 35 years old who's completed eighth-grade science."

With the earth on pace to add two billion more people by 2050, who will all want cars and homes, and with scientists saying the only way to stay below the 2 degrees C redline is to phase out all fossil fuels by roughly the same date, there is only one force big enough to do that — to take on Mother Nature at scale — and that's Father Greed, a.k.a., the market.

What will make this deal epochal is if the U.S. and China now lead the world in imposing a price on carbon, because only that will take to scale the already significant technology breakthroughs that have happened with wind, solar, batteries, energy efficiency and nuclear power.

"In the last six years," said Hal Harvey, C.E.O. of Energy Innovation, a policy research group, "solar prices have dropped by more than 80 percent, and now cost less than a new coal plant. Wind is down 60 percent, and LED lights more than 90 percent." With other new technologies near at hand "it becomes clear that a clean future costs no more than a dirty one," he said. "Texas now has the most wind installed of any U.S. state. Texas!"

Harvey's team has built a computer model to see which policies can decarbonize the economy at the lowest price. It lets a user test varying policy options on climate, pollution and the economy. If you pick the right blend, the results will have you grinning. Go online, at [www.energypolicy.solutions](http://www.energypolicy.solutions), and try it for yourself.

The point, said Harvey, is that today's chief executive doesn't "have to be a hero anymore" to invest in clean power.

Indeed, José Manuel Entrecanales, chairman of Acciona, the giant Spanish renewables company, told me that he used to be sprinting alone in the race to install renewables "with the wind in my face." But now he finds the wind is at his back, and some of the biggest oil companies are trying to muscle into the race. That is not an accident, he said, considering that recent deals from Morocco to South Africa to Chile were struck for around 2.8 cents a kilowatt-hour of wind and 4.2 cents a kW-h for solar, making them highly competitive with fossil fuel.

"In Chile," said Entrecanales, "there was [just] an auction which was technology agnostic, so the government was offering big bunches of energy to be supplied over the next 10 years, 20 years, and all the energy awarded was renewable. Not one single megawatt hour of conventional energy was supplied."

But, he stressed, leveraging the Paris consensus to get a price on carbon in the big emitting countries is the "Holy Grail," the thing that tips everything. Because while renewables can win against new fossil fuel plants, old fossil fuel plants built without any pollution control, and with all their capital expense amortized and still enjoying subsidies, can still run very cheaply — if you don't count their massive carbon impacts.

A price on carbon, said Entrecanales, "would drive technology, it would drive R&D, it would drive investment, it would drive consumer habits." So Paris was necessary. A price on carbon will make it sufficient.

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## **The Narrow Path to a Carbon Tax**

The Wall Street Journal, By GREG IP, Dec. 23, 2015

A carbon tax acceptable to business and Republicans might be tough for President Obama to swallow

Having agreed to ambitious new targets for reducing emissions of greenhouse gases in Paris, the world's nations now need a way to hit those targets.

There's no dispute among economists on the most cost-effective way to do that: a carbon tax. President Barack Obama agrees. In Paris he called such a tax "the most elegant way" to incentivize investment in, and consumer demand for, cleaner energy technology.

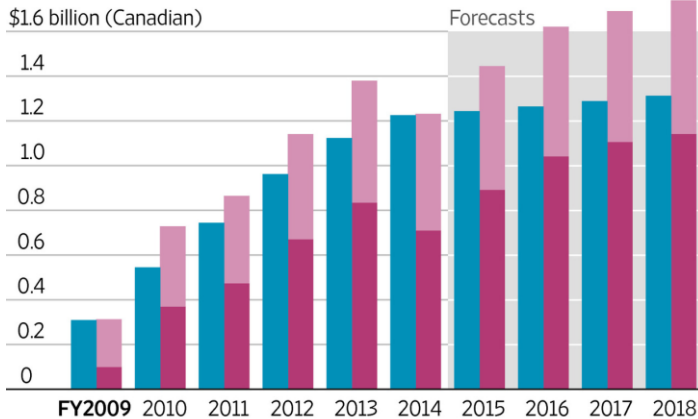
But that sentiment is at odds with Mr. Obama's own record. He has never formally proposed a carbon tax or even an increase in the gasoline tax. The message isn't that a carbon tax is impossible, but that Mr. Obama is not the person to deliver it. Crafting a carbon tax acceptable to business and to those Republicans who want to address climate change would probably require trade-offs that Mr. Obama couldn't swallow, such as using the money to finance corporate tax cuts instead of new spending or deficit reduction, and rolling back regulations on greenhouse gases.

The political radioactivity of carbon taxes dates to 1993 when President Bill Clinton proposed a "BTU" tax based on the heat content of fuel. That tax died as farmers, manufacturers and others pressed for exemptions and legislators on both sides of the aisle complained of the hit to the middle class.

## How One Carbon Tax Works

By law, British Columbia's revenue-neutral carbon tax must be returned to taxpayers via tax cuts. Tax cuts are allowed to exceed estimated carbon-tax revenue.

**British Columbia's carbon-tax revenue** (■) and related tax cuts for **individuals** (■) and **businesses** (■)



Notes: Fiscal years end in March 31 of the year labeled; \$1.00 Canadian = \$0.72 U.S.

Source: British Columbia Ministry of Finance

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standards when they come up for review in 2017. Subsidies create industries addicted to taxpayer support. Regulations also provide less certainty than legislation: two dozen states are suing to overturn the Clean Power Plan.

What are the odds a carbon tax will fare better under the next president? Only a few Republican candidates for president say climate change needs to be addressed, and none have made it a priority. That could change if one actually became president. Jerry Taylor, president of the Niskanen Center, a libertarian think tank that backs a carbon tax, notes Republican voters are more concerned than their candidates about climate change. One poll found a slim majority believe there's "solid evidence" of global warming.

While Hillary Clinton, the Democratic front-runner, promises more action on climate change, she has not embraced a carbon tax, while Vermont Sen. Bernie Sanders has and former Maryland governor Martin O'Malley is open to the idea. But any president who wants to enact a carbon tax will almost certainly have to make it palatable to business and some Republicans.

For example, Mr. Clinton wanted to use the BTU tax to reduce the deficit while Mr. Obama originally earmarked the money from selling trading permits for worker tax credits and green-energy subsidies. To win over conservatives, a carbon tax would probably have to be "revenue neutral," that is, used to reduce other taxes, as with the Canadian province of British Columbia's carbon tax.

George Frampton, an environmental adviser to Mr. Clinton, and Walter Minnick, a former Democratic congressman, are drumming up support for a carbon tax, half of whose revenue would be used to offset the effect on lower- and middle-income taxpayers and the other half to cut corporate tax rates, a longstanding priority of both Republicans and business. Mr. Frampton says the most promising way to create bipartisan support for the tax is to tie it to tax reform. By boosting investment, lower corporate tax rates could make the package, on net, neutral or even positive for growth.

Their proposal would collect the tax using existing federal infrastructure to collect fees, taxes and data on coal, refined oil and natural gas. A tariff on carbon-intensive imports would neutralize concerns about competitiveness.

Mr. Obama's regulations weaken the incentive for Democrats to compromise (since they leave less for a carbon tax to accomplish) but for Republicans and business, the opposite is true. For them, the power plan "represents an endless series of regulations from an agency they hate," says Mr. Taylor.

Yet in the wake of the Paris climate accord, further action on climate change looks inevitable. The question, he says, is "whether we address it using markets or using regulators."

Mr. Obama campaigned on a pledge to not raise taxes on any family earning less than \$250,000 a year, which made it difficult, politically, to propose a carbon tax or higher gas tax. Instead, he and Democrats in Congress went with selling tradable permits to emit greenhouse gases—an approach, known as cap and trade, that is economically similar to a tax. Nonetheless, it died in 2010 amid opposition by most Republicans, who called it "cap and tax," and some Democrats in Congress.

Since then, Mr. Obama has instead turned to regulations, such as boosting required fuel efficiency of cars and a Clean Power Plan that compels states to limit power-plant emissions (they can use cap and trade to do that). At the same time Congress continues to shower billions of dollars of tax credits on renewable energy.

These are expensive ways to combat climate change. Mandated energy efficiency limits consumer choice and makes cars and appliances more expensive. Plunging gasoline prices have sent consumers flocking to less efficient light trucks, and auto makers are pressing to relax the fuel-efficiency