What are the Costs and Benefits of Chile's Carbon Tax Plan?

Latin American Advisors Energy of Inter-American Dialogue's Interview

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FEATURED Q&A

What are the Costs and Benefits of Chile's Carbon Tax Plan?

Q Chilean President Michelle Bachelet this month presented a proposal to Congress that called for imposing the first tax on carbon emissions in South America, and the second in Latin America after a measure that took effect in January in Mexico. Chile's proposal, which the government says is aimed at encouraging a shift to cleaner technologies, calls for a tax of $5 per metric ton of carbon dioxide emitted by thermal power plants with a capacity of 50 thermal megawatts or greater. Are carbon taxes an effective way to induce the use of cleaner technologies and renewable energies? What are the possible costs and benefits of the proposed measure, and what effects would it have on power generation companies and on consumers?

A Andrew Vesey, chief operating officer and executive vice president of AES Corporation: "Taxes can form an economic instrument for environmental protection when applied to promote and encourage investments in cleaner production technology, aiming to reduce emissions. Chile already has an environmental regulation to promote local emissions abatement, which is one of the most rigorous in the world and imposes standards even more demanding than those of some OECD countries. Therefore, this new tax will not involve environmental improvement, since the power plants with more than 50 thermal megawatts (MWt) have already or are in the process of making significant investments to reduce their emissions. In addition, the carbon tax proposed will not cause a replacement effect from fossil sources to less intensive sources of CO_2 emissions and will not have an impact on the reduction of these emissions since currently there are no technologies on an industrial scale for the abatement of CO_2. Local climate policies that are isolated from global and incumbent mitigation

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Argentine Congress Approves $5 Billion Repsol Payout

Argentina's Chamber of Deputies voted early Thursday to give final approval to pay Spanish oil giant Repsol a compensation package worth some $5 billion for the 2012 nationalization of YPF. As part of the deal, Repsol agreed to drop its lawsuit against Argentina.

File Photo: Government of Argentina.

Inside This Issue

ENERGY SECTOR BRIEFS

Energy Rationing in Brazil 'Increasingly Likely': Moody's

Energy rationing is becoming "increasingly likely" as Brazil's drought continues and could put at risk the credit quality of some power companies operating there, **Moody's** said in a report released Thursday. Brazil's hydro-power reservoirs support around 70 percent of the country's electricity production. Rationing would cause lower sales and force power providers to buy energy on the higher-priced spot market. Rationing would also affect energy distribution companies, causing a drop in operating revenues and cash flows, Moody's said.

Pacific Rubiales Sees Lower Volumes in Colombia Over Water Issues

Toronto-listed **Pacific Rubiales Energy Corp.** on Wednesday said its total net production for the first quarter is expected to be in the range of 147 to 149 million barrels of oil equivalent per day, an increase of 16 percent from the same period a year ago. However, the company's key Rubiales Field in Colombia saw lower volumes, primarily because of restrictions in surface water disposal due to a drought in the area, and lower-than-expected capital expenditures for water treatment facilities pending ongoing negotiations with state oil company **Ecopetrol**.

Argentine Congress Approves $5 Billion Repsol Payout

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Oil & Gas News

U.S. Senate Advocates for Canada Pipeline May Push for Votes

Congressional advocates for the proposed Keystone XL pipeline suggested Wednesday they would revive efforts to override the Obama administration's opposition to the project in the wake of a State Department decision to push back a deadline to advance it, Bloomberg News reported. "We'll have to start counting noses again," Sen. Heidi Heitkamp (D-N.D.), a supporter of the pipeline, told the news service. "Now that this process has taken a turn for the worse, I think we need to have those discussions again." The State Department, which is leading an interagency review of **TransCanada**'s proposal to build the $5.4 billion pipeline from Alberta to Nebraska, on April 18 extended its previous deadline over a legal challenge and asked other agencies to file comments on the plan by early May. Senate advocates presently lack several of the 60 votes needed to buck the administration and bring the bill up for consideration in the Senate, and even more votes would be required to reach the 67 needed to override a veto from President Barack Obama should a bill pass in Congress. "The simplest path for Keystone XL remains the State Department," Andy Black, chief executive officer of the Association of Oil Pipe Lines, a Washington-based group whose members include TransCanada, told Bloomberg News. Meanwhile, analysts at an Inter-American Dialogue event on North American energy trends Wednesday suggested that the future of the pipeline was far from decided. "I think the question has gotten more complicated rather than less," Sarah Ladislaw, the director and senior fellow in the CSIS Energy and National Security Program, told the audience. Aside from political and environmental opposition, the U.S. energy industry itself may not be as fully supportive of the pipeline deal as it once had been, she noted, pointing out that some U.S. energy producers are finding railways to be a viable and flexible alternative to a new fixed pipeline. "You basically see a lot of rail traffic moving around to solve the issue that the absence of this infrastructure

Heitkamp

File Photo: U.S. Senate

Featured Q&A

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agreement taken inside the framework of the U.N. Framework Convention on Climate Change could have a negative impact on the countries' economies and practically no impact on the fight against climate change. In this case, the overall proposed tax on emissions will immediately increase the cost of energy for most large customers and gradually for the regulated customers, affecting the country's competitiveness. Last but not least, the proposed taxes would significantly increase the already growing uncertainty of investment in thermal generation in Chile. The electricity generation industry is very intensive in capital and requires stability in regulations that allow recovering investment in the long term at reasonable rates of return."

A Christina McCain, senior manager of the Latin American Climate Initiative at the Environmental Defense Fund: "It's inspiring that Latin American countries are stepping up to cut carbon emissions and are recognizing this opportunity to drive clean economic development and growth. Placing a price on pollution is an engine for innovation: it accelerates the transition to clean energy, better efficiency and the wise use of natural resources. The shift from the fossil-fuel dependent growth of the past can also address other pressing health, environmental and development priorities. Mexico and Chile's new carbon taxes on some energy sources are important steps in that direction. As policymakers in those countries know, however, taxing emitters for every ton of carbon pollution they release does not

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has had over a period of time," she said. [Editor's note: See the Dialogue's video with related pipeline comments beginning at 1 hr., 15 min.]

Japan Complains Expanded Canal Won't Handle Biggest LNG Ships

Japan has protested to Panama about planned limits on the size of ships in the expanded canal, saying they could prevent some natural gas transports from reaching customers in Asia, *The Wall Street Journal* reported Wednesday. Panama has set a width limit of 49 meters for ships passing through the widened canal, according to the report, but Japan says that is slightly too narrow for a type of LNG carrier called a Q-Flex, which is 50 meters wide and can carry as much as 38 percent more LNG than 49-meter-wide models. "Only the smallest LNG carriers would be allowed to pass. This wouldn't help much," Ryo Minami, who heads the oil and natural-gas division at Japan's Ministry of Economy, Trade and Industry, told the *Journal*. The Panama Canal Authority responded to the *Journal* Wednesday to acknowledge that the global LNG fleet has gradually increased in capacity over the years, but it said the size increases are generally limited so as to maintain flexibility to trade to most LNG terminals and that it expects the fastest-growing part of the world's fleet will handily fit in the expanded canal.

CEO Defends Petrobras Over Controversial Texas Refinery Deal

The CEO of Brazilian state oil company **Petrobras** took out an ad in major newspapers last week to defend the company over a controversial refinery deal in the United States, *Folha de S. Paulo* reported. Maria das Graças Silva Foster admitted to legislators during six hours of congressional testimony that the 2006 purchase of the Pasadena refinery in Texas "was not a good deal," but she defended the decision, noting that "there is no transaction that is 100 percent safe in any commercial activity and certainly not in the oil and gas industry." The deal has thus far cost Petrobras $500 million in write offs, according to media reports, and an internal investigation was launched last month to look into other alleged irregularities associated with it. Brazilian President Dilma Rousseff, who was CEO of Petrobras at the time of the purchase, lashed out at legislators this week over their criticism of the company, saying that Petrobras had become a political target. "No one and nothing will destroy Petrobras," she told a gathering of company employees in Pernambuco state, *Forbes* reported. "Petrobras is bigger than all of us," Rousseff told the workers. "Petrobras is as big as Brazil."

Halliburton Sees 9 Percent Slide in Latin America Revenue

Halliburton said Monday its first-quarter revenue from Latin America reached $859 million, down 9 percent compared to the same period in 2013, while operating income from the region fell by 8 percent in the period. The Houston-based energy industry services firm said a drop in drilling-related activity in Brazil and reductions in its Mexico business were behind the decline in the region. However, for the full year 2014, the company said it expects Latin America revenue and operating income to recover and be in line with 2013 levels. Increased drilling activity in Mexico later this year will likely boost results for the region, the company said.

Halliburton said it expects Latin America revenue to recover and be in line with 2013 levels.

Other areas of the world tended to perform better in the first quarter for the firm, which operates in 80 countries. In Europe/Africa/CIS, the company said quarterly revenue and operating income increased 9 percent and 21 percent respectively, compared to last year. In the Middle East/Asia region, both revenue and operating income increased by 13 percent. Halliburton's total worldwide revenue in

Comings & Goings

Marcelo Tokman to Take Helm of Chilean State Energy Company

Former energy minister Marcelo Tokman will take the helm of Chilean state oil firm **Empresa Nacional del Petroleo**, or ENAP, starting May 12, *Diario Financiero* reported Monday. Máximo Pacheco, Chile's minister of energy under the newly inaugurated administration of Michelle Bachelet, said Julio Bertrand has resigned after 17 years with the company, most recently as its general director. Tokman had most recently worked as vice president for Latin America at wind turbine manufacturer **Vestas**, a Danish company he joined in 2010. He served briefly as energy minister in the previous Bachelet administration.

Tokman

File Photo: UDP.

SunEdison Names Jose Perez as President for Europe, Africa and Latin America

California-based **SunEdison** said Tuesday it had appointed Jose Perez as president of the company's Europe, Africa and Latin America division. He replaces in that job Pancho Perez, who has been promoted to chief operating officer of SunEdison Capital. In his new position, Jose Perez will direct all business development activities in the three regions, where the company operates eight offices, one each in Chile, Brazil and Mexico, as well as Spain, the United Kingdom, Italy, Turkey and Jordan. Before his promotion, Perez was the company's vice president for Latin America. His previous career includes different international positions in **EMI Music**, where he was chief financial officer for Asia Pacific & Latin America. He also served at **Universal Pictures** as regional controller for continental Europe.

the first quarter beat market expectations, reaching $7.3 billion, compared to $7 billion in the first quarter of 2013.

Biofuels News

Argentine President Asks Congress to Lift Taxes on Biodiesel Producers

Argentine President Cristina Fernández de Kirchner on Monday sought to boost domestic biodiesel producers by asking Congress to eliminate some of taxes on the industry, Reuters reported. Anti-dumping measures put in place last November by the European Union are expected cut exports by 39 percent this year compared to 2013, according to the report. "We are in a trade war," Fernández said in announcing the proposal. Last month, Argentina formally asked the World Trade Organization's dispute settlement body to look into Europe's barriers. Argentina's proposed exemption would cut a 22 percent tax on biodiesel used in thermoelectric plants and a 19 percent tax on biodiesel for gasoline blends, Bloomberg News reported. Argentina was behind only the United States in biodiesel production last year, with 2.8 billion liters. Germany and Brazil had nearly the same output at 2.7 billion liters apiece, according to Worldwatch Institute data released this month. Germany has been benefitting perhaps most from the European Union's dumping decision. Its biodiesel industry hit a new export record last year, reaching almost 1.6 million metric tons since 2012, while the country's biodiesel imports dropped from 0.76 to 0.56 million tons, *Biofuels International* reported.

Video

An Inter-American Dialogue Discussion

What Does North America's Energy Boom Mean for Latin America?

with

Francisco González
Johns Hopkins - SAIS

Sarah Ladislaw
CSIS

Edward Morse
Citigroup

Lisa Viscidi
Inter-American Dialogue

Click here to view the webcast of the April 23 event.

Power Sector News

IDB Approves $20 Million Panama Loan for Rural Electrification

The Inter-American Development Bank on Monday announced approval of a $20 million loan to Panama to finance a rural electrification program, the Washington-based multilateral lender said on its Web site. The loan aims to promote public and private investment to provide service for more than 10,000 rural households, located mostly in very poor remote areas. The program will also provide access to electricity for 107 schools and 21 health centers, with a goal of increasing Panama's electricity coverage rate to approximately 81 percent of rural households by 2018. The IDB wants public-private groups to invest in grid-extension projects and off-grid systems in order to provide more reliable electricity services. Among the eligible renewable energy alternatives are small hydroelectric projects, wind power plants and solar photovoltaic systems.

Political News

Colombia's Santos Restores Ousted Bogotá Mayor to Office

Following a court order, Colombian President Juan Manuel Santos on Wednesday reinstated ousted Bogotá Mayor Gustavo Petro to office, BBC News reported. In December, the country's inspector general sacked Petro and banned him from holding office for 15 years over alleged mismanagement of the capital's trash collection system. Santos ratified the ouster in March, but the Superior Tribunal of Bogotá on Tuesday ordered Petro's reinstatement. Petro had argued that his removal was politically motivated.

Brazilian President Signs Internet 'Bill of Rights'

Brazilian President Dilma Rousseff on Wednesday signed into law the country's first Internet "Bill of Rights," the Associated Press reported. The new law aims to protect privacy by limiting the data that online companies can collect on Internet users. Rousseff called the law's "net neutrality" clause, which bars companies from charging more for content that demands higher bandwidth, "fundamental to maintaining the Internet's free and open nature." [Editor's note: See related Q&A in the April 8 issue of the *Advisor*.]

Demonstrators Battle Police in New Venezuela Protests

Anti-government protesters battled police Sunday in Venezuela and burned effigies of President Nicolás Maduro as they sought to keep pressure on the government amid nearly three months of violent demonstrations, Reuters reported. While millions of Venezuelans headed for the beach and family gatherings on Easter Sunday, the demonstrators rallied in Caracas to demand what they said would be a "resurrection of democracy." "We're staying in the street until we get our country back," student protester Djamil Jassir, 22, told Reuters. "This is the time to stand firm." Youths hurled Molotov cocktails and rocks at police, who responded by spraying them with water cannons and teargas. Demonstrators said a student was fatally shot while collecting money for the Easter tradition of "burning Judas," in which Venezuelans burn hated figures in effigy. If the death is confirmed and linked to the protests, it would be the 42nd fatality connected to the demonstrations, which began in early February.

Defense Secretary Eyes Closer U.S.-Mexico Ties

U.S. Defense Secretary Chuck Hagel said Wednesday during a trip to Mexico that he wants to deepen defense ties between the two neighboring countries, the Associated Press reported. Hagel made the comments to reporters accompanying him during the visit to Mexico City where he is participating in talks this week with his Mexican and Canadian counterparts. "Over the years we've probably never done enough to reach out to our Latin American partners," said Hagel, adding that the United States has largely focused on crises in other regions. Hagel is only the third sitting U.S. secretary of defense to visit Mexico, following trips by William Perry in 1995 and Robert Gates, who visited as recently as 2010, the AP reported. Military relations between the United States and Mexico have long been strained, starting when the United States defeated Mexico in the Mexican-American War in the 1840s. More recently, drug trafficking along the border has troubled the countries' relations. Today's talks would also cover regional security threats, such as violent extremists, in addition to possible areas for cooperation, such as humanitarian assistance and disaster relief. Hagel also plans to visit Guatemala before returning to the United States on Friday.

Economic News

Mexico's Unemployment Rate Rises to 4.8 Percent in March

Mexico's unemployment rate rose to a higher-than-expected 4.8 percent in March, EFE reported Tuesday. The state-run National Institute of Statistics and Geography, or INEGI, said the March figure was well above the 4.51 percent rate registered the same month last year. Seasonally adjusted unemployment rose to 5.25 percent, a much higher figure that may be explained in part by the shifts in the month when the Easter holiday occurred in the last two years, analysts said. Even taking that into consideration, however, the March data doesn't bode well for faster economic growth. "The labor market continues to exhibit a significant amount of slack," **Goldman Sachs** analyst Alberto Ramos said in a research note circulated Tuesday. "At 5.25 percent, the unemployment rate remains much higher than the 3.7 percent average that prevailed from January 2007 through June 2008," he wrote. Ramos said demand for durable goods has been limited by decelerating credit growth, and lower wage gains will likely continue to dampen private consumption growth, particularly for nondurable goods. The underemployment rate, defined as workers who wish to and are willing to work more hours but are unable to do so, was 8.3 percent in March, up from the 7.8 percent rate registered in the same month last year, according to INEGI. The informal employment rate also grew. While 58.42 percent of Mexico's workers were employed in the informal sector last month, the figure was lower, at 58.03 percent, in March 2013.

POLITICAL & ECONOMIC BRIEFS

Peru's Economy Grew 6 Percent Year-on-Year in March

Peru's economy expanded by about 6 percent in March as compared to the same month last year, the country's economy and finance minister, Luis Miguel Castilla said Tuesday, state news agency Andina reported. Higher domestic demand and imports of durable goods helped fuel growth last month, he said. "Everything indicates that in March the economy may have grown more than in February," he noted.

Man Fatally Shot in Rio in Clash Over Dancer's Death

A mob angered by the death of a popular local dancer set barricades of tires and trash on fire Tuesday night in a favela of Rio de Janeiro, clashing with police they accused of being behind the death, *O Estado de S. Paulo* reported. The body of Douglas Rafael da Silva Pereira, 25, had been found beaten on the grounds of a local daycare in the poor Pavão-Pavãozinho neighborhood, one of the favelas targeted by the government for cleanup ahead of this summer's World Cup games. Officials said a 27-year-old man was killed by a bullet to the head.

Bolivia to Hike Minimum Wage by 20 Percent

Bolivian President Evo Morales announced Monday that the government will increase the country's minimum wage by 20 percent, BBC News reported. The boost exceeds Bolivia's 6.5 percent rate of inflation. Although trade unions welcomed the decision, Bolivia's employers' federation criticized it, saying they had not been involved in the discussions. The minimum wage will increase from 1,200 bolivianos ($175) per month to 1,488 bolivianos.

Featured Q&A
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alone guarantee lower emissions. As these countries measure the effect of the tax, they may decide to link carbon pricing to emissions limits. Pairing a price on carbon with a mandatory cap on emissions guarantees greenhouse gas reductions. Emissions trading systems, for example, place a declining cap on total emissions, and allow emitters to buy and sell carbon allowances under that limit. This creates a powerful incentive to reduce emissions as cost-effectively as possible, while ensuring that the limit on emissions is maintained. Both Mexico and Chile have committed to voluntary emissions reduction targets, and both are putting in place key machinery for emissions trading and driving reductions in other sectors. If implemented vigorously, these policies will reduce global pollution and drive the economic and social benefits that come with it."

A **Miguel Schloss, president of Surinvest Ltd. in Santiago:** "Chile, a pioneer in deregulation and privatization of the power sector, forcing generators to compete with each other, has been one of the most attractive countries in terms of providing transparent, predictable and rational means of delivering appropriate risk-adjusted returns. As a result, it has delivered reasonably priced energy, capital inflows into the sector and reasonably good energy efficiency, despite having to supply fully a third for its energy-intensive mining sector, the mainstay of the economy. The Chilean model, however, has shown vulnerability to growing strains in energy security and associated environmental implications. The unexpected cancellation of gas-export contracts from Argentina and the consequent growing importance of coal in the energy matrix have led to the relentless growth of emissions. While Chile's post-Kyoto status may well remain with no formal commitments regarding emission reductions, its recent entry into the OECD has led officials to position the country to face stronger emission standards. The proposed carbon tax is a way to start 'pricing' the environmental externalities, however imperfectly, to influence investment choices toward 'cleaner' technologies. Given the obvious struggles and high costs countries have faced with such issues worldwide, Chile may have to opt for a more comprehensive approach that could include options such as carbon capture and sequestration, development of carbon markets, risk sharing arrangements for new sources of energy like geothermal, and new incentives and regulations to encourage transportation and household energy efficiency."

A **Leni Berliner, CEO of Energy Farms International:** "Carbon taxes are an efficient way of reducing carbon dioxide emissions in places where emissions trading markets have not developed due to liquidity problems. There will be a hue and cry from owners of big emitters, but any power company that still uses imported, carbon-intensive fuels, in a country with tremendous renewable fuel resources of its own, deserves a kick in the pants. If node prices react strongly to a short-term rise in marginal costs related to capital investment, consumers would be affected. Companies might ask that rate-payers help defray costs of fuel switching, but these costs should not be significant when widely shared over the correct time frame and when rate payers have easy access to energy efficiency technologies that will lower their usage. The proposed carbon tax should apply to all large emitters, not just large power companies. For example, municipalities could quickly see the light on shifting fuels used to power bus fleets. Mining companies could move more quickly to close their diesel power plants. With a tax, it will become popular to build renewable fuel-based micro- and pico-grids to heat, cool and power schools, hospitals and other buildings. It is likely that emissions taxes will create jobs in measurement and power systems maintenance. Any new 'carbon tax' should also be levied on significant emitters of methane, such as oil refineries and storage facilities and shale gas exploration companies. Bachelet should dedicate proceeds to the process of developing and permitting new energy infrastructure of any size."

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