

COLUMBIA GLOBAL ENERGY DIALOGUE

IMPLICATIONS OF THE RUSSIAN WAR IN UKRAINE ON LATIN AMERICA'S ENERGY SECTOR

BY DR. MAURICIO CÁRDENAS, JUAN CARLOS JOBET, DR. LUISA PALACIOS,
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On March 30, the Center on Global Energy Policy at Columbia University hosted a conversation among Senior Research Scholars Dr. Mauricio Cardenas and Dr. Luisa Palacios, and Distinguished Visiting Fellow Juan Carlos Jobet, about the impact of Russia's war in Ukraine on Latin America's energy sector. The discussion covered a range of issues, including the war's influence on the region's macroeconomic trends and energy transition. What follows are the main takeaways from the conversation:

- The impact of Russia's invasion of Ukraine on Latin America has to be seen from the point of view of the economic, political, and social consequences the war is creating. This event has already led to what has been called the worst refugee crisis in Europe since World War Two. **The war has also caused further disruption in already-strained supply chains and put more pressure on very tight global energy markets**, Palacios said, given Russia's key role in commodity markets. Russia is the world's second largest crude exporter, after Saudi Arabia, the second largest petroleum product exporter, the

This event summary reflects the authors' understanding of key points made in the course of the event. It does not necessarily represent the views of CGEP.

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largest natural gas exporter, and the third largest coal exporter. Russia is also a major producer of critical minerals and some agricultural commodities.

- **The Russia-Ukraine war is leading to uneven and divergent macroeconomic trends in Latin America, Cardenas argued.** The impact of the invasion on global commodity prices is putting pressure on inflation, not only because of the rise in energy prices but also because of the increase in agricultural prices, which is leading to food inflation. However, Latin American oil exporters, such as Brazil, Ecuador, Colombia, and Venezuela, stand to benefit from the point of view of their external accounts. The same can be said of large agricultural exporters, such as Argentina, Brazil, and Uruguay, which are also seeing improvements in their terms of trade. The net food and fuel importers, mostly in Central America and the Caribbean, already vulnerable before this crisis, stand to lose the most. The region's currencies have not yet been negatively impacted by the war. However, the risk premium has increased in some countries. Still, the foreign investment outlook remains a huge question mark in the context of rising geopolitical tensions.
- **It is too soon to say whether the conflict will accelerate or delay the energy transition in the region, stated Jobet.** On the one hand, the conflict highlights the need to increase supply from renewable energy, not only from an environmental point of view but also from an economic and energy security perspective—both in Latin America and worldwide. Also, high fuel prices make investments in renewable energy much more price competitive, which will help to increase and fund the supply of renewable energy. The Russia-Ukraine war and its impact on global energy prices are also making more evident the benefits of investments in energy efficiency (given the cost savings), which should help reduce demand for fossil fuels. On the other hand, this war also underscores that the world does need fossil fuels in the short term. This reality means that increasing investments in energy infrastructure to secure supplies could lock economies into fossil fuels for longer. The biggest challenge is how to navigate the current high prices and improve energy security while avoiding investments that may hurt the energy transition.
- **The speakers discussed how shielding consumers from fuel price increases could delay the energy transition.** Cardenas argued that fuel pricing policy is a sensitive topic in Latin America, especially because of political events in the region, including upcoming elections in Colombia and Brazil, recent elections in Chile, and heightened political risks in Peru. Policy responses to the war and its impact on high energy prices have included subsidies and/or tax reductions on fossil fuels. Jobet cautioned that if these subsidies become permanent, they could delay the energy transition not only in Latin America but also in the rest of the world. This is why it is important to design fuel pricing policies that target the most vulnerable groups, Jobet suggested. Determining who pays the bill for these subsidies is also a key policy decision. Fiscal accounts and public debt in Latin America were already hard hit because of the pandemic, said Cardenas, who gave the example of Colombia, where fuel subsidies are expected to cost 2.5 percent of the country's GDP this year. If governments use public resources to subsidize high energy prices, policy makers should have a clear understanding of how much subsidies cost, who benefits, and how long they will be in place.

- **Latin America will be negatively impacted by the increasing competition for US liquefied natural gas (LNG) coming from Europe's drive to diversify away from Russian gas supply, Palacios argued.** She noted that the region would need to increase gas production domestically for natural gas to be an affordable transition fuel in the context of increasing competition for LNG. Representing the bulk of electricity generated in the region, hydroelectricity has been the backbone and baseload of Latin America's grid, but recurrent droughts due to climate change might be compromising this role, Palacios said. While non-hydro renewables have become the cheapest source of electricity at the moment, they remain an intermittent source of energy. This reality has pushed Latin American countries to rely on natural gas-fired power plants for the grid's reliability. Latin America is both a producer and consumer of natural gas. Some Latin American countries have been increasing their LNG import capacity because domestic supply of natural gas has not been keeping up with rising demand. But, as indicated, LNG imports are becoming too costly. Palacios said Russia's invasion of Ukraine is occurring at a time of significantly widening price differentials between natural gas that is imported via pipelines, with pre-crisis Henry Hub prices around \$5/MMbtu, and LNG spot prices of \$30-35/MMbtu due to very tight global balances. The shift in European energy policy away from Russian piped natural gas and toward US LNG is making Latin America's seasonal reliance on US LNG imports, which help the region cope with droughts, increasingly difficult. Cardenas said the situation illustrates how "Latin America is oil rich but gas poor." Jobet presented a caveat to this discussion using Chile's LNG supply contracts: most gas supplied to Chile is through Henry Hub-indexed LNG imports from the US and Trinidad and Tobago, which have capped the impact of high LNG prices on Chile's energy markets. But this does not include the additional cargoes Chile has had to buy in the spot market, which faced those high prices. In the short term, Jobet argued, this dynamic may not be an issue because Europe has to build infrastructure to be able to import more LNG cargoes. But longer term, Europe's LNG demand could be a source of concern if it causes a reduction in flows to Latin America. In Jobet's view, this possibility underscores the case for green hydrogen as a substitute for natural gas, as Latin America is well positioned to be both a green hydrogen producer and exporter.
- **Russia's invasion of Ukraine is an opportunity for Latin American oil producers to position themselves as oil suppliers that are reliable and take environmental, social, and governance (ESG) concerns seriously, Palacios stated.** On the question of whether Venezuela could offer an alternative to Russia's oil, Palacios mentioned that Venezuela's oil production was around 700,000-800,000 barrels per day (b/d) currently, according to OPEC, whereas global markets face the challenge of diversifying away from 7.8 million b/d of Russian oil, representing the total amount of crude and oil products exported by Russia as of December of 2021 according to the IEA.¹ At its peak, Venezuela was producing over 3 million b/d, but only 1.5 million b/d just before the oil sanctions began in 2019.² More relevant in the discussion about easing sanctions on Venezuela could be the redirection of Venezuelan oil, which currently trades through opaque means into Western markets. Echoing Palacios's view of "ESG oil barrels," or barrels of oil that come from ESG-minded oil suppliers, Cardenas argued that Russia's

invasion of Ukraine might be changing the calculus of who produces. According to Cardenas, some studies suggest that Latin America was expected to be the region with the largest decline in oil production to comply with the world's goal to limit temperature increases to 1.5 degrees, shifting from producing 10 million b/d in 2019 to 4 million b/d in 2035.³ But Cardenas said the Russian-Ukraine war is an opportunity for Latin American oil producers to position themselves as reliable suppliers.

- **Regarding the role of critical minerals, Jobet cautioned that the world cannot have an energy transition without mining:** “We can stop mining or we can stop climate change, but not both at the same time.” Minerals such as copper, lithium, cobalt and others are essential for the energy transition. The speakers noted that key challenges for the mining sector include how to decarbonize their production of critical minerals and how to better communicate their essential role in the energy transition to the general public. If these challenges are not met, there is a risk that critical minerals could be a bottleneck in the energy transition, Jobet argued, referring to the uncertainty about the supply of these raw materials that are critical for renewable technologies. He stated that Chile is by far the largest copper producer in the world and that enormous amounts of investment are needed just to keep current volumes in production. He said that a new royalty (currently under discussion in Congress) or other changes in mining legislation being discussed by the constitutional convention could hurt investment in the sector if not properly designed. He said there is a lot of pressure from some governments, communities, and environmental groups to raise royalties, but a balanced discussion should consider both high spot prices and other risks inherent to mining, such as exploration and price volatility.
- **Not all fossil fuels will have the same fate in the energy transition—natural gas will likely be needed for longer.** Jobet commented on the importance of distinguishing, especially to the general public, between the carbon intensity and emissions of coal, oil, and gas, as gas will likely remain in global energy systems for longer than the others. Palacios said that in Latin America, oil and gas companies have an important role to play in the energy transition, suggesting that natural gas in particular could be seen not only as a transition fuel but also as a “transition enabler” because it provides a backup for the grid, helping to manage the intermittency of renewable energy. Cardenas discussed the role of coal in the near term, noting that its price has doubled recently and that it is Colombia's second largest export. Will these high coal prices help or damage the energy transition?
- On investment and policies in Mexico, **Palacios said that the energy transition is not only a matter of reducing emissions but also an opportunity for enhancing energy security and affordability.** She cited the lower costs of Brazil's renewable power plants compared to its gas-based power plants as a lesson for Mexico. Palacios said there has not been a better time for promoting investment in renewable energy and implementing policies that favor the energy transition.
- Many questions remained unanswered at the event because of limited time, but the variety of issues touched upon showcases the uncertainty ahead for Latin America due

to the Russia-Ukraine war. Will the energy crisis in Europe eclipse or accelerate energy transition efforts in Latin America? Will advanced economies invest in Latin America's oil and gas sectors as an alternative to other sources involved in the war? Could US-based EV makers export to Latin America at a time when EVs make more financial sense? Would higher prices negatively impact the ESG transition as funds are deployed in current energy subsidies? Energy security, regardless of price, will be based on fossil fuels for at least the next 10 years; should nuclear energy be included in the discussion about energy security? Are Latin American governments offering incentives for foreign direct investment (like exchange rate guarantees) in the energy sector that could become a fiscal risk in the long term? Is a government's tendency toward socialism or capitalism related to how it prioritizes the extraction of oil given the sustained increase of prices? What are the risks of diesel shortages in Latin America related to the Russia-Ukraine war? How would a victory by Gustavo Petro impact the Colombian oil industry and energy transition policies? How would high copper prices and leftist governments affect investment in this critical mineral for the energy transition? Can oil and gas produced with high ESG standards become a reality? Many serious questions must be answered in the years to come, and those will evolve as the Russian war in Ukraine continues to unfold.

Notes

1. IEA, "Russian Supplies to Global Energy Markets," February 2022, <https://www.iea.org/reports/russian-supplies-to-global-energy-markets>.
2. Luisa Palacios and Francisco Monaldi, "Venezuela Oil Sanctions: Not an Easy Fix," Center on Global Energy Policy, March 23, 2022, <https://www.energypolicy.columbia.edu/research/commentary/venezuela-oil-sanctions-not-easy-fix>.
3. Baltazar Solano-Rodriguez et al., "Implications of Climate Targets on Oil Production and Fiscal Revenues in Latin America and the Caribbean," Inter-American Development Bank, August 2019, <http://dx.doi.org/10.18235/0001802>.

About the Authors

Dr. Mauricio Cárdenas is a Visiting Senior Research Scholar at the Center on Global Energy Policy at Columbia University SIPA, where he leads research focused on energy and climate policy in Latin America. He is also a Visiting Professor at Columbia University SIPA.

Dr. Cárdenas is a recognized expert on Latin American and an economist with vast academic and policymaking experience. As Colombia's finance minister between 2012 and 2018 he handled the oil shock (which caused a 40% reduction in Colombia's exports), implementing a successful adjustment program that preserved high investment rates and sharp reductions in poverty and inequality. Prior to the shock he had led a fiscal reform that cut payroll taxes, triggering an unprecedented increase in formal jobs. In addition to Finance, has been a

minister in four other portfolios: Economic Development (Industry and Housing), Transport, Planning, Mines and Energy.

His academic experience is mostly associated with Fedesarrollo, where he has been twice executive director, and the Brookings Institution, where he has been Senior Fellow and Director of the Latin America Initiative.

He is currently is a member of the Task Force led by Michael Bloomberg and Lawrence Summers on ways to use taxation in order to improve health outcomes. He is also a Distinguished Fellow at the Center for Global Development in Washington D.C.

He holds a Ph.D. in Economics from the University of California, Berkeley. He is also a former president of LACEA.

He is married and has three daughters.

He will be teaching a class at SIPA on Fiscal Policies for Development, combining theory and practice. Some of his most cited publications include "On the effectiveness of capital controls: The experience of Colombia during the 1990s," *Journal of Development Economics*, Volume 54, Issue 1, 1997 and his well know textbook *Introducción a la Economía Colombiana*, Alfaomega, Bogotá. (4th edition now in preparation). A complete list of his publications is here <https://scholar.google.com/citations?user=TOtBgXgAAAAJ&hl=en>.

Juan Carlos Jobet is Chile's former Minister of Energy and Mining. He was recently appointed as Dean of the School of Business & Economics at Universidad Adolfo Ibáñez.

He led Chile's successful energy transition, including a thorough carbon neutrality plan for the energy sector, a phase out plan for all coal power plants, the accelerated deployment of solar and wind capacity, the development of key transmission infrastructure, Chile's first energy efficiency law, and an ambitious green hydrogen strategy to position Chile as a top global producer and exporter. In the mining sector, he developed Chile's first comprehensive mining policy: a long-term strategy built with participation of all relevant stakeholders, that sets a vision for a sustainable, competitive and green mining.

He successfully managed several crises after the social unrest of October 2019 and during the pandemic. Both the energy and mining sectors operated without disruptions, jointly represented over 50% of Chile's investment and played a key role in the economic recovery.

As energy minister, he played leadership roles in several international organizations and initiatives, including as chair of the Clean Energy Ministerial and Mission Innovation 2021, and as co-chair of the Carbon Pricing Leadership Coalition.

Throughout his career, he has held several positions in both the public and private sector. He was undersecretary of housing and minister of labor and social security during president Piñera's first government. He has also worked as investment banker and in private equity. He has held several executive and board positions in industries including pension fund management, real estate, forestry, fin tech, infrastructure and waste management.

He holds an MBA and an MPA from Harvard University, and a bachelor in business and economics from the Catholic University of Chile. He is married and the proud father of three daughters.

Dr. Luisa Palacios is a Senior Research Scholar at the Center on Global Energy Policy. She comes to the center after a multidisciplinary career in the intersection of energy, finance and policy.

In March 2021, she completed a two-year period in the Board of Directors of Houston-based Citgo Petroleum Corporation, the 5th-largest independent U.S. refiner during most of which she served as Chairwoman. She and her board colleagues led the company during a critical period in its history, as it faced significant geopolitical, financial, operational, and legal challenges. As Citgo's first-ever chairwoman, Palacios also shaped efforts to strengthen corporate governance, ethics, and social responsibility, including the publication of the company's first-ever ESG report.

Before her time at Citgo, Palacios was a Senior Managing Director and member of the management committee of Medley Global Advisors, a macro policy research firm. She headed Medley's Latin America and later the firm's emerging market research efforts. She previously worked at Barclays Capital as a Director in the emerging markets research department, and as an economist in the risk department at Société Générale in Paris. She also worked as a senior economist at the Japan Bank for International Cooperation and was a consultant in the Office of the Chief Economist for Latin America at the World Bank.

She graduated from Universidad Católica Andrés Bello in Caracas, Venezuela; received a master's degree in international affairs from Columbia University's School of International and Public Affairs; and obtained a Ph.D. in international affairs from The John Hopkins University School of Advanced International Studies where she wrote her dissertation on Latin America's national oil companies. Dr. Palacios is part of the Editorial Board of the Americas Quarterly, member of the Venezuela Working Group of The Atlantic Council, affiliated faculty at the Institute for Latin American Studies at Columbia University and International Faculty of IESA's School of Management.

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Diego Rivera Rivota is a Research Associate at the Center on Global Energy Policy at Columbia University. His responsibilities include analyzing energy policy in Latin America, supporting CGEP's Distinguished Visiting Fellows program and researching natural gas and LNG markets. His previous research has largely focused on energy policy in developing economies, natural gas and LNG markets, and the role of these fuels in the low-carbon energy transition around the world.

Prior to joining CGEP, Diego was a visiting researcher at the Asia Pacific Energy Research Centre (APEREC) based in Tokyo, Japan for five years. He was a lead author of the APEREC Gas Report and also co-authored several other APEC reports and publications, including the 7th and 8th editions of the APEC Energy Outlook, APEREC's flagship publication. Diego also coordinated cooperative projects related to natural gas, LNG markets, energy security and

energy efficiency. He presented APERC's research extensively across the Asia-Pacific region.

In previous roles, Diego worked on natural gas pipeline and electricity infrastructure development as advisor to the CEO at Mexico's state-owned utility, CFE (Comisión Federal de Electricidad). Prior to this, Diego completed an internship at the Permanent Mission of Mexico to the Organisation for Economic Co-operation and Development (OECD) and worked at Mexico's Office of the President as a junior staffer.

Diego holds a Bachelor's degree in International Relations from the Instituto Tecnológico Autónomo de México (ITAM) and a Master's in public policy with a specialization in Energy and the Former Soviet Union region from Sciences Po Paris. Diego speaks Spanish, English, French, Russian and Portuguese.

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