

LATIN AMERICA POLICY JOURNAL

A Harvard Kennedy School Student Publication

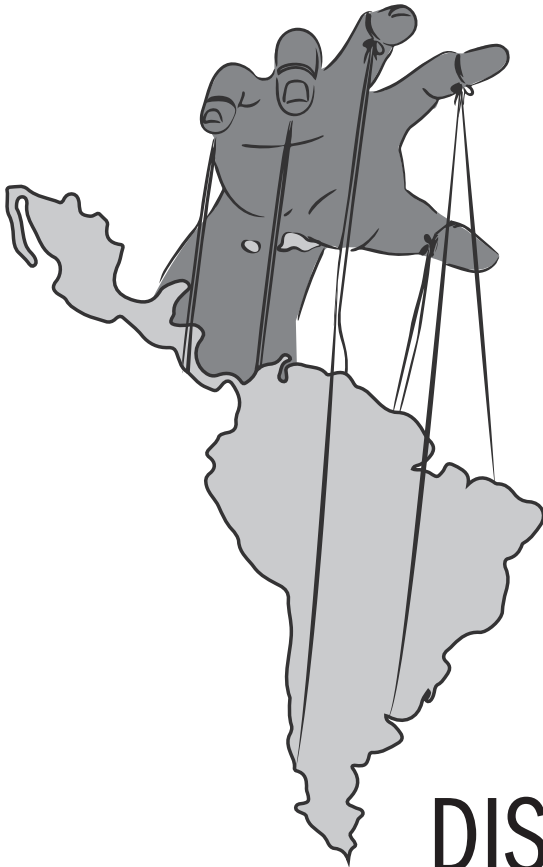


DISRUPTIVE FORCES

VOLUME 8 - SPRING 2019

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Editorial Note

By the LAPJ Editorial Board

There is a certain paradox in publishing one of the few journals from and for Latin American policymakers as students in a public policy school in the United States. From a distance, we, as Latinos, find each other sometimes more united than what our studies and work experience allowed us to be before finding ourselves abroad. As students and practitioners of policy in our home countries, we rarely find spaces to understand our shared history and challenges. National politics rarely leaves time for a reflection that transcends the national and local issues. Migration, as shown by the Venezuelan and Central American diaspora, breaks barriers and tears walls between cultures and narratives, and can serve as a vehicle for citizens to learn about their neighbors' humanity and struggles. Policymakers in the Americas face the task of mobilizing this shared knowledge and experience for both personal and institutional learning. After all, macroeconomics, gender, or urban policy challenges are not altogether different in our countries and cities, nor are the policies that can and should be advanced to confront them.

The Latin America Policy Journal (LAPJ) at the John F. Kennedy School of Government at Harvard University seeks to serve this mission of learning by reigniting and strengthening the bonds that tie the peoples in this region. We believe our shared present and future is larger than the national borders that separate our countries. Through this journal, we strive to work towards a stronger community of Latin American leaders, politicians, and policymakers, that can better establish dialogue and act coordinately to face in union the most pressing problems in the continent.

The Editorial Board of the LAPJ titled its eighth issue "Disruptive Forces," acknowledging the swift transformations our region appears to be undergoing. In a year of pathbreaking presidential elections in Brazil, Colombia, Mexico, Costa Rica and Paraguay, citizens in many of the region's countries have shown unprecedented discontent towards political incumbents. As we write this edition, the people of Venezuela and Nicaragua fight to topple authoritarian governments, while the countries' neighbors fail to agree upon a unified position or approach to face the crisis. The Venezuelan exodus of more than three million men and women has generated the largest migration crisis the continent has ever seen, and whose consequences for host countries are yet to be known. Nonetheless, not all "Disruptive Forces" should be negatively appraised: across the continent, policymakers and citizens are increasingly aware and discontent with the inside dynamics of corruption in their countries and are discovering new policies to contribute to issues as diverse as the struggle for gender equality and the provision of quality services in large cities.

With the goal of maintaining a spirited conversation between the Harvard community and key stakeholders in the continent, the Spring 2019 edition brings together ministers, scholars, policymakers, journalists, and students, who are the heart of this publication. These articles reflect the diversity of experiences and challenges faced by the region, and the exceptional vigor of the professionals who tirelessly work for a better future.

The Editorial Team would like to thank all the individuals and organizations that are listed in the Acknowledgements page for their contribution and support that made the preparation of the LAPJ possible this year. A special mention should be made for the talented team of editors from the Harvard Kennedy School that allowed a publication of high-quality content to happen. We are also grateful for the financial aid granted by Dean Douglas Elmendorf and the David Rockefeller Center for Latin American Studies (DRCLAS), and the support of the Harvard Kennedy School Journal coordinators, Professor Richard Parker and Martha Foley.

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“People know much more about the backroom deals that sustain policies, and they’re not willing to tolerate it”: An interview with Steven Levitsky

*Steven Levitsky is Professor of Government at Harvard University. His research interests include political parties, authoritarianism and democratization, and weak and informal institutions, with a focus on Latin America. He is author of *Transforming Labor-Based Parties in Latin America: Argentine Peronism in Comparative Perspective* (2003), co-author (with Lucan Way) of *Competitive Authoritarianism: Hybrid Regimes after the Cold War* (2010), and co-editor of *Argentine Democracy: The Politics of Institutional Weakness* (2005); *Informal Institutions and Democracy: Lessons from Latin America* (2006); and *The Resurgence of the Left in Latin America* (2011).*



Professor Levitsky sat down for a conversation with LAPJ editors Patricio Goldstein, Laura Olivera Garrido, and Omar Ghurra on January 29, 2019. What follows is a lightly edited transcript.

LAPJ: Professor Levitsky, thank you for accepting our invitation. We would like to start today with your general political assessment. What has been happening in the political landscape in Latin America in the last few years?

LEVITSKY: That’s a big question. I think that it’s easy to see the glass half-empty. There are a number of problems facing Latin American democracies. Some of them are long-standing problems like inequality, weak institutions, corruption. Corruption is not a new problem in Latin America. It’s very salient today in part because the media, civil society, and institutions are doing a better job of uncovering that corruption. That corruption is not new, but it’s a big problem. Economies are so-so, bad in some places, okay in others. The public support for democratic institutions, democratic politicians, and political parties is quite low, although that’s a problem across much of the world these days. It’s easy to find problems across even the better-functioning democracies in Latin

America, like Chile or Costa Rica. It’s even easier to find problems in the Andes or in Central America. But it’s important not to forget that, despite a very difficult situation, and particularly an international environment that has grown much less favorable to democracy than 20 or 30 years ago, most Latin American democracies continue to survive and in fact have survived longer than ever before in history. In a majority of Latin American countries, democracy today has survived longer than at any other point in history. Given the overall situation, given the challenges of inequality, corruption, and a darkening international environment, the performance of Latin American politicians and political institutions doesn’t get an A, but it hasn’t been terrible either.

LAPJ: After the elections of Jair Bolsonaro in Brazil and Andrés Manuel López Obrador in Mexico, where do you see the future of Latin American leadership?

LEVITSKY: I see Latin America as a big, heterogeneous, diverse place. It’s never been characterized by a single ideological flavor or a single stripe. It certainly goes through waves: It went through a dramatic wave, an economic shift to the right in the 1980s and 1990s driven by the debt

crisis. Governments of left, right, and center had very little choice but to move in a market-oriented direction. But that was a rarity. And then there was a period when there was a striking number of left or left-of-center governments elected in Latin America. But that was unusual. Most of the time you will find within Latin America a diversity of governments. The biggest trend I see right now is that the level of public discontent in most of the region is either high, in countries like say Argentina and Colombia, or very high in countries like Brazil and Mexico. People are angry everywhere. They're intensely angry in places where policy has just failed abysmally, like in Brazil. And when people are angry, they vote the vote incumbents out. It happens to be the case that over the last few years the incumbents in most of Latin America have been left-of-center governments, whether it's the Kirchner-led Peronists in Argentina or the Chavistas in Venezuela, or the PT in Brazil. The incumbents have been left, and so you've seen the electoral defeat of the left. In Mexico there's also a lot of discontent, a lot of anger with the status quo and a widespread perception that both of the main right-of-center parties—PRI and PAN—have failed miserably in terms of solving the country's primary problems. So they voted for an alternative. Mexico and Brazil look like polar opposite cases because in one case they elected a left-leaning populist, and in the other case they elected an extreme right-wing candidate. But the two cases have in common massive policy failure, very widespread public discontent, and a pursuit of significant change on the part of the electorate. It just so happens the left was governing in Brazil and the right was governing in Mexico.

LAPJ: The Bolivian elections are passing unnoticed as a major event in the region. After losing the 2016 constitutional referendum that would have allowed him to run for reelection, Evo Morales got a favorable ruling from the country's highest court to run for a fourth term in office. In the lines of your recent book, *How Democracies Die*, this move could mean a

major step towards authoritarianism in Bolivia. What are your thoughts on the country's situation?

LEVITSKY: Chavez did it. Chavez held in 2007 a referendum trying to change the constitution to allow himself to be president for life. He lost that referendum and held another one a year or two later and won that one. Bolivia is one of the countries with the weakest institutions in all of Latin America. Bolivia has had more than 20 different constitutions since its independence. It's averaged more than one constitution per decade. So the political rules of the game in Bolivia over two centuries have never been strong and the consequences are devastating for democracy, the rule of law, and economic development. You cannot make either democracy or capitalism or any kind of economy work without a strong institutional foundation. Bolivia has never had it. Bolivia has had a degree of political stability and economic success over the last decade, but unfortunately Evo Morales is destroying in many respects what could be a very positive legacy by bending institutions yet again to hold on to power. So when you rewrite the constitution to allow yourself to be reelected, that's one thing, but then you try to change the rules again a second time, and you create an institutional process for that, are defeated, and yet break those rules again. That is devastating behavior in terms of weakening institutions. Whether he will get away with it or not, political scientists are not good at predicting how this is going to result. Evo is a very talented politician. His rivals are not particularly strong and the economy is okay, so he's got a fighting chance.

LAPJ: The region has not been able to agree upon a unified approach to the political crisis in Venezuela and Nicaragua. What do you think will happen in those countries?

LEVITSKY: In general, Latin America rarely acts in a united way on anything. There were aspirations that Latin America would act in a coherent way vis-à-vis the debt

back in the early 1980s. There have been many, many aspirations. There was hope among more market-oriented types for a free trade agreement in the Americas in the early 1990s; that failed. It's very difficult for 18 or 19 sovereign states with different interests, different sizes, different economies, different relationships with the United States, different relationships to the global economy, different relationships to China, and with different levels of political stability and instability. Eighteen, 19 different states, very diverse, to get them to cooperate on anything is extremely difficult. I think that much of the time our expectation or hope that they might is an illusion. I don't think we should expect Latin American states to cooperate.

I think the degree of cooperation that that the right-of-center wing of the region has achieved in opposing the Maduro government in the last few weeks has been fairly impressive. In my own opinion, I think that regional pressure is very important for sustaining democracy over the long haul. So I've been very disappointed in Latin America's very weak response to Venezuela's slide into outright dictatorship in the last five years. I would have liked to see Brazil and Argentina and other governments act more forcefully when they were governed by the left a few years ago, and they didn't. Leaving the Trump administration's behavior aside, the response of Latin American governments in the contemporary period, even though it's only some of them, it's not all of them, is a positive thing and it's making it harder for Maduro to hang on to power.

LAPJ: Your most recent book *How Democracies Die* is focused on the rise of authoritarianism in the United States and how it resembles the fall to authoritarianism in other countries. This past month, the dispute over the budget to build a border wall has put the government in a very costly shutdown. At the time of this interview, the government reopened for three weeks to try and reach an agreement, but the word emergency looms around Trump's speech, and threatens to

override the power of Congress. What is your opinion on this—are the “guardrails of democracy” strong enough to protect the country?

LEVITSKY: Americans are fortunate in several senses. Our institutional guardrails, both formal ones and informal ones, are much stronger than in Brazil or Mexico, or even some of the stronger democracies in Latin America. And, a big difference between the United States and say Venezuela, or Bolivia, or Hungary, or Turkey, is that the United States has a very strong opposition. It's very hard for an authoritarian president to use a majority to steamroll the opposition the way that the Chavistas did in Venezuela in the early part of the 21st century, or what Orban has done in Hungary. The opposition, as they showed in 2018, is still very strong and that's going to limit Trump's ability to move in a typically authoritarian direction. I think that our democracy though is still in danger, although the manifestation of that may be somewhat different. I mean, what we discussed in our book as the norms of mutual toleration and forbearance continue to be eroding and continue to be very weak. And so, in that context, without this norm of restraint, without this basic mutual toleration between parties, we are now in a situation of divided government. We did not have divided government when we wrote the book. So there, we worried about a Republican majority. Now, divided government places greater constraints on Trump, which is good, but I think is likely to lead to the kind of institutional warfare between different powers of the state that we have seen in places like Paraguay, Peru, and Ecuador in recent years. It is not going to be that extreme, but we see things like increasing ideas of impeaching the president, blocking the president's every move, and, if the president doesn't get his way, seeking to circumvent the Congress. This can very easily, as we see, descend into total dysfunctionality. The U.S. system of constitutional checks and balances is in many ways a brilliant design, but it only works if they are complemented,

reinforced by, informal norms of mutual toleration and forbearance. Without them, something like the United States begins to look more and more like Ecuador. I don't want to exaggerate—the United States is nowhere near Ecuador—but the level of dysfunctionality that we are seeing now, where the government is shut down for more than a month because the president does not get what he wants in Congress, that is disastrous. So we are not out of the woods yet.

LAPI: Where democracies have died—Venezuela—or might die—Brazil—how do you think they can be reinvigorated?

LEVITSKY: What we argue in the book is that it is far more likely today that democracies die at the hands of elected leaders. So it is less likely that you get a Pinochet-style military coup where the Constitution is dissolved, and Congress is dissolved, and political parties are suspended, and you have an outright dictatorship, although Venezuela is getting close to that. It's much more likely that you get an elected leader working behind a facade of democratic institutions, employing democratic institutions, like we see in Bolivia; and yet, moving slowly and incrementally in an authoritarian direction. We saw that clearly in Venezuela, we saw it in Ecuador under Correa, we've seen it tragically in Nicaragua, we have seen a bit less but to some degree in Bolivia, and that could happen in Brazil. The good news, though, is that these regimes tend to be pretty unstable. They continue to rely on democratic institutions, they continue to rely on elections, they continue to tolerate opposition, they for the most part do not just ban opposition. Governments have to maintain a degree of public support; even if the elections are not fair, they still have to go out and win them. And, particularly in countries with pretty weak states, countries with pretty uneven economic performance, it is hard for governments to maintain public support for very long. And so these regimes tend to be pretty unstable. The commodities boom, which

lasted for a little over a decade, was an unusual period. My grandmother could have been re-elected in the Andes in 2007 or 2008. If the economy is growing eight percent, nine percent, if mineral prices are above the clouds, it is very, very easy to maintain public support and be re-elected. And so, it looked for a while like the Bolivarian regime was indestructible. But, when growth comes down to two percent or sometimes below zero, presidents lose support pretty quickly and it's hard to hold on to power. And so, we saw that it was very difficult for even somebody as popular and as powerful as Rafael Correa to consolidate power. It's true that Ortega and Maduro hang on to power, but their regimes are completely disgraced, they're completely illegitimate, and they're no longer a model for anybody—nobody wants to copy Venezuela anymore. So even though democracies are very precarious in Latin America today, there is no successful alternative model. The authoritarian alternatives are quite weak. So even if a country like Brazil, and I hope it does not, or Mexico, which also seems not too likely, were to slide into what I would call a competitive authoritarian sort of a hybrid regime, the likelihood of consolidating that or it becoming sort of permanently authoritarian does not seem very high.

LAPI: We've been talking about the sad cases, but a country like Peru, for instance, is showing a somewhat positive move towards more democratic institutions, with more checks and balances and even a positive reform of the judiciary. What do you think made this happen? What was the tipping point in this move towards a better democracy?

LEVITSKY: Well, I'm not so optimistic about Peru in the long run. I would say that this is the most successful democratic period in Peruvian history and that's great, but it has mostly been a democracy by default. It's been a democracy because basically all the political actors, all the parties, all the figures in politics, with the partial and short-lived exception of Fujimorismo,

everybody is weak. It's not that nobody wants to be Rafael Correa or Evo Morales, it's that nobody's been strong enough to do it since Fujimori's fall in 2000. Now, what happened in Peru is that there was massive discontent with the status quo, just like in much of the region, but what was different is that the Fujimoristas managed to get this crazy majority in Congress and they clearly emerged both as the bad guy and the status quo. And so, what Vizcarra was able to do as president before he was in power long enough to become unpopular (because ever since the fall of Fujimori, Peruvian governments have been unbelievably unpopular, every single one of them), was to mobilize public anger not against the government for the first time, but against those who were in Congress and in control of the judiciary. So this anger about corruption, rather than being directed at the government, was actually directed at the most authoritarian force in Peruvian politics. It was mobilized by somebody who looks like he is relatively clean and relatively democratic, and mobilized to weaken a force that really was threatening democracy. I had hopes that Fujimorism would become a more pragmatic political force, but it simply didn't. They brought down PPK [former Peruvian president Pedro Pablo Kuczynski], and I think they were trying to sort of climb their way into power. So public anger was used to weaken the Fujimoristas. Whether that can be sustained and whether this will actually lead to positive institutional reforms, I think remains to be seen. But there was a pretty ugly mafia in power in Peru, primarily in the judiciary, and we don't know what's to come, but we know those guys are getting thrown out. So it creates an opportunity for reform. That's as far as I would go in terms of my optimism.

LAPJ: This magazine is mainly intended for students of public policy in Latin America. How do you think the study of comparative politics can be useful for future policymakers?

LEVITSKY: I think one of the key lessons for budding policymakers, particularly in Latin America, is always that, to put it simply, they have to take politics into account. I mean, you guys are a third or fourth generation of technocrats and you're much more politically savvy and much more embedded in democracy than those in the 1970s. But the first generation of technocrats in Latin America in the 1960s and 1970s came back and they had their economics degrees, but they had no idea how to take politics into account. They had learned their economic models on the chalkboard at MIT or Chicago, and then they got home and they saw populist politicians, and unions, and people protesting in the streets, and congressional deal-making, and corruption, and they had no idea how to deal with that, and they had no patience for it, and they went running to Pinochet. And I don't think that is a very viable solution. Technocrats have to learn how to achieve their policies through politics, and that means understanding how politics works. One of the central issues that I push in my classes is making the state work. Even the best-intentioned policymakers, completely honest, fully informed, got all the best practices on their laptop, if you don't have a functioning state you are not going to be able to implement those policies, and if you implement them on the ground they are going to be implemented badly, and people are going to dislike it, and they are going to resist and it is not going to be sustainable. So policy has to be built on a state that works. You don't learn how to build a strong state in your in your MPA program, because nobody knows how to do it. But it is something that has got to be taken very, very seriously, and I think it has only been taken seriously in the last couple of decades.

The other thing is building a political coalition behind reforms. That's often messy, it's often difficult, but just having the right ideas, I think policymakers have now learned in Latin America, is nowhere near enough. It takes a lot of political creativity, that's something that Vizcarra has done very well, and it takes a lot of

political work to build coalitions. A problem that we're facing right now, is that the way that democratic policymakers built their coalitions in the 1990s and early 2000s, even the best ones, was through practices that are kind of gray in terms of their legality and their legitimacy. I'm talking about patronage, clientelism, and corruption, not even necessarily massive corruption, although in Brazil it was massive. In a country like Brazil, in a country with extreme inequality, a million problems, an extreme political fragmentation, if you want to govern in democracy you have to work very, very hard to build and sustain a coalition. Cardoso did it, Lula did it, but they did it at a certain cost. They did not do it in a way that, if the public were to inspect it closely, looks very nice. And the problem is that public citizens

are much more aware of what's going on behind the scenes in politics today because of the media, because of independent judiciaries, because civil society is more active. All of those things are very positive. But, the fact of the matter is people know much more about the backroom deals that sustain policies and they are not willing to tolerate it. And so, the kinds of corrupt practices and deal-making that helped to sustain policies in Brazil in the 1990s and early 2000s are no longer acceptable. And so, politicians, you guys, your generation, is going to have to learn how to actually build and sustain democratic coalitions without giving everybody a free hand in the state, and I don't think anybody really knows how to do that yet. But those are the kind of things we study in comparative politics.

Latin America's Challenging External Environment: Old and New Forces

Carmen M. Reinhart

Carmen M. Reinhart is the Minos A. Zombanakis Professor of the International Financial System at Harvard Kennedy School. She was Senior Policy Advisor and Deputy Director at the International Monetary Fund and held positions as Chief Economist and Vice President at the investment bank Bear Stearns in the 1980s. She serves in the Advisory Panel of the Federal Reserve Bank of New York, and was a member of the Congressional Budget Office Panel of Economic Advisors. Her best-selling book (with Kenneth S. Rogoff), entitled "This Time is Different: Eight Centuries of Financial Folly," documents the striking similarities of the recurring booms and busts that have characterized financial history.



Looking ahead, Latin America faces no shortage of policy challenges, and many (if not most) of these have domestic economic and political roots. The problems confronting individual countries vary markedly in origin, nature, and severity, so it would be misleading to discuss many of these at the regional level. The economic implosion inflicted on Venezuela by Maduro's dictatorship registers on a separate scale, not only in comparison to the rest of the region but in the global and historical experience by almost any metric. Meanwhile, Brazil's new government is attempting to tackle a daunting and worsening fiscal problem that is unsolvable without substantive pension reform. Argentina's central bank continues to battle the old demon of chronic high inflation. Mexico's new president has raised alarms among global investors about his "market-friendliness." Despite these and other substantive differences across national borders, however, there is considerable common ground across the region in the challenges posed by the changing external environment.

"HISTORICAL" EXTERNAL FACTORS

The global cycle in world primary commodity prices has been a driver of prosperity and depression in Latin America

(LATAM) economies since their independence.¹ Developments in the world's financial centers (London in the 19th century and the United States since World War I) have also importantly shaped the region's economic cycles. The severe financial crises in the US and Europe of the late 1920s and 1930s, coupled with a spectacular collapse in global commodity prices and a spike in real (inflation-adjusted) interest rates, brought nearly every Latin American country to a state of protracted economic depression and widespread default on their external private and sovereign debts. Capital, instead of flowing south, flowed north into the United States.

About half a century later, in order to reduce inflation, Federal Reserve Chairman Paul Volcker drove US real interest rates to their highest levels since the 1930s. As a result, oil and commodity prices crashed abruptly and the decade that followed came to be known as the Lost Decade of Latin America. Foreign capital only began to return to the region in the early 1990s, when the debt crisis had been resolved under the Brady Plan debt restructuring and US interest rates drifted lower.

My work, with Guillermo Calvo and Leonardo Leiderman (1993),² which documented LATAM's return to international

capital markets, presented formal evidence that external factors play a significant role in explaining capital flows and exchange rate developments in Latin America and that, consequently, there is a substantive degree of co-movement in capital flow patterns across countries in the region. We stressed the key role of US monetary policy and interest rates as drivers of the boom-bust cycle in capital flows to the region. Since then, a substantial literature has emerged that, for the most part, reiterates that general message for emerging markets (EMs) in general.

An influential paper by H el ene Rey (2015) has suggested an even more dominant role for a common global financial cycle.³ In that paper, as well as others that examine the drivers of cross-border flows, the expected volatility of equity prices in the United States (as measured by the VIX, the forward-looking index of the volatility of equity prices traded on the Chicago Board of Options Exchange) plays a central role over and beyond interest rates. Periods of low expected volatility are associated with higher capital flows to EMs. A plausible interpretation is that in periods of low volatility, there is a lower premium on liquidity (as insurance against shocks) and investors are more willing to hold riskier and less liquid assets.

So, if historically external factors helped shape the Latin American economic cycle, how was it possible that LATAM thrived after the United States and nearly a dozen European countries sank into severe financial crises and deep recessions in 2008-2009 and beyond? Most countries in the region were affected by the global turmoil, to be sure, but the typical pattern was a steep contraction followed by a rapid and robust recovery.

Some observers claimed that LATAM's resilience was evidence that superior policies were paying off and that the region was able to better withstand adverse external shocks. Indeed, at the time of

the global financial crisis (GFC), EMs were "lean and mean," having deleveraged over several years. External debt (public plus private) had declined to its lowest levels since the early 1970s, and many countries had amassed a war chest of foreign exchange reserves. Current account surpluses were commonplace, even in Latin America, where they are comparatively rarer. For most commodity producers, growth domestic product (GDP) growth ran above trend.

Some of the region's policymakers went as far as to suggest that LATAM had decoupled from its historic dependence on external factors. As I will discuss, this view does not stand up to scrutiny (then or now). Within the usual set of "historic external factors," US and global interest rates did not rise. Unlike the financial crisis of the early 1930s, the policy response of the Federal Reserve and other advanced economies' central banks was to aggressively ease liquidity conditions, allowing nominal and real interest rates to decline markedly and stay in negative territory for years. In Europe and Japan, interest rates remain negative (in nominal and real terms) to this day. Most measures of volatility in financial markets, including the aforementioned VIX, also posted a remarkable decline after the crisis. This extended period of exceptionally low international interest rates and volatility following the 2008 crisis provided a conducive climate for capital to flow to EMs. It provided an incentive for governments and firms in Latin America and other EMs to borrow from international capital markets and, in their eternal quest for yield, it induced investors to lend.

In a different era, the severe and prolonged contraction in economic activity in the advanced economies, however, would have likely depressed global commodity prices and worsened the terms of trade of the commodity-dependent Latin American economies, as occurred in the 1930s. This did not happen after the 2008 crisis. "Traditional western-oriented"

external factors fell short of providing a full picture of the global forces that were influencing LATAM.

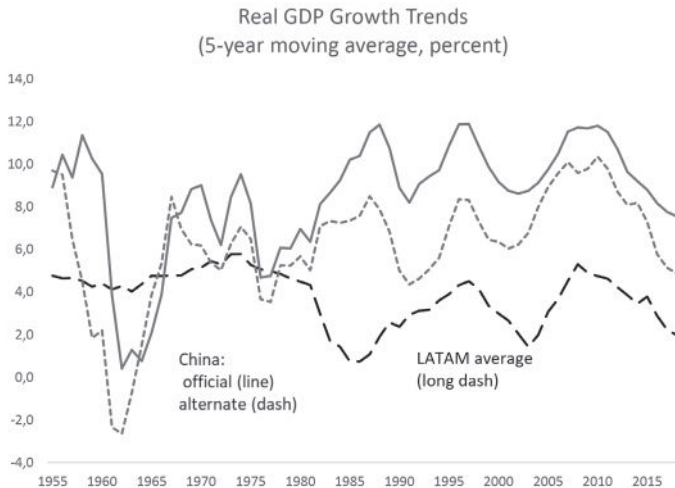
THE “MODERN” CHINA FACTOR

While the mature economies tackled severe recession after the crisis, a record fiscal stimulus package at the outset of the GFC helped to keep China’s economy expanding at record speed. For the decade centered around the 2008 crisis (2004-2013), real GDP growth averaged 10.8 percent, according to official sources.⁴ Furthermore, China’s growth was driven primarily by commodity-intensive infrastructure investment. This combination from an economy that in a few years’ time moved to second place as a share of world GDP fueled the longest commodity price boom since the late 18th century.⁵ The episode was one long bonanza for much of Latin America. Parallel stories were unfolding in Sub-Saharan Africa and other regions where primary commodity exports are dominant.

Apart from its dominant presence in world commodity markets, China’s footprint in global finance was also expanding dramatically. Among the lower-income countries, development loans soared. Chinese lending was also growing rapidly to the oil producers. Venezuela’s now-notorious loans stand out in this regard, but Ecuador’s debt to China also expanded during this period. Apart from debt financing, Chinese FDI was an additional new component of the capital inflows. During 2004-2013, growth in the largest Latin American economies averaged almost 5 percent, about 1.5 percentage points above the post-1950 average. Figure 1, which shows five-year moving averages of real GDP growth for China and LATAM, highlights the synchronicity in growth cycles. Since 1995, the simple pairwise correlation between the five-year growth rates is an impressive 0.76 (it matters little whether the Chinese official sources or an alternative estimate are used).

While turbulence in LATAM has escalated in 2018, the true “bonanza” period

Figure 1. China and LATAM Economic Growth: The correlation of the five-year GDP growth rates of China and LATAM since 1995 is 0.76.



Note: LATAM aggregate for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Mexico, Peru, Uruguay, and Venezuela. Alternate GDP estimate for China is published by the Conference Board.

Source: Conference Board.

for the primary commodity producers had come to an end by 2012, coinciding with the slowdown in China and the downturn in commodity prices. The so-called “Taper Tantrum,” following speculation about the Federal Reserve’s intention to taper (scale back) its large-scale stimulus program of quantitative easing in the spring of 2013, marked a definitive end to the boom period for Latin America.

CHALLENGES AHEAD

If for most of LATAM economic conditions were “lean and mean” at the outset of the GFC, the same cannot be said of the present. While the experiences vary considerably across countries, in the aggregate external borrowing picked up in the years that followed the crisis. In some cases, it was confined to the private sector, as in Chile (also seen outside the region in Turkey), where corporations did much of the borrowing. More broadly, both public sector and private external debt levels climbed in the post-crisis decade. Total (public plus private) external debt matters in the risk calculus because the recurrent historical crisis experience shows that private debts are private before the crisis, but became public after the crash. Private external debt is a contingent liability with teeth. While an external debt ratio of about 50 percent seems almost trivial by modern advanced economies’ standards, as Reinhart, Rogoff, and Savastano (2003) show, safe external debt thresholds for EMs and developing countries are quite low, and notably lower for those countries with a history of serial default.⁶

More troubling, however, is the fact that the officially reported external debt data is not the whole story. External debts to China, not well measured and not included in World Bank data, are estimated to add another 15 percentage points or so to this ratio in 2016-2017 for EMs (variation across countries is considerable). LATAM’s resilience to external shocks is not what it was ten years ago.

What are the highlights of the external conditions (in comparison to the bonanza decade)? China’s real GDP growth has almost halved; largely as a consequence of that slowdown, world commodity prices are significantly below their cyclical peak; US interest rates have risen, and further increases are possible; partially owing to the tightening in monetary conditions in the US relative to other advanced economies, the US dollar strengthened since 2017. A strong dollar is problematic for EMs like Argentina and others where much of the borrowing is in US dollars. It is noteworthy that the “dollar bloc” includes the countries that have borrowed from China, as these loans are almost exclusively denominated in US dollars.

Not surprisingly, capital flows to LATAM have declined markedly, especially in the past year. As external conditions deteriorated, economic growth has slowed significantly. According to the IMF’s *World Economic Outlook*, for the EM group economic growth has slowed by about 2 percentage points from the 2010-2013 average.⁷

There are signs that in the past year financial market volatility is on the rise. As noted, volatility measures, such as the widely followed VIX, had posted exceptionally low readings since the GFC. Low volatility, other things equal, has been found to be a quantitatively important factor in pushing capital to EMs. In the latter part of 2018, the VIX and other volatility measures have climbed back closer to some of the historic norms.

Finally, contributing to the less friendly global environment for EMs in 2018, negative contagion (although not crisis magnitudes) from other EMs has been a recurring feature. Argentina’s currency and LEBAC crisis, which led to an IMF program and ushered in a recession, Turkey’s currency collapse, South Africa’s populist rumblings and soft economy, Brazilian elections, and less-than-market-friendly signals for Mexico’s president have all tended to re-enforce the other global factors contributing to

investor skittishness.⁸ Importantly, investor sentiment may be carrying a bigger weight in overall capital flow outcomes, as the EM investor base has changed dramatically in recent years. Less is held by the multilateral institutions, and much more of it is held by non-banks (hedge funds, pension funds, and the like). According to several studies and recurring market commentary from the IMF and others, this component of the investor base is particularly prone to sudden reversal. Furthermore, much of the external debt is variable-rate, which does not protect borrowers in a rising interest rate environment.

The million-dollar question for policymakers coping with an uncertain external environment involves developing an ex-ante assessment of whether the shocks they face are temporary or permanent (or, at least, very persistent). Given the comparative unpredictability of foreign exchange markets, a plausible expectation is that the strength in the US dollar since 2017 (as noted, this increases the burden of those countries with dollar debts) may be reversed in the period ahead. Recent statements by Federal Reserve Chairman Jerome Powell appear to have a more dovish tone, so that gap between US monetary policy and its European and Japanese counterparts may be less than what had been priced into the dollar. In that vein, it may be that the upward trek in US interest rates has been (at least temporarily) halted. Taken together, these developments in the historical external factors point to a reprieve for LATAM borrowers, especially as it also supports commodity prices.

Less comforting to LATAM policymakers is the fact that the questions about China almost all involve concerns about whether it can consistently deliver its projected growth of around 6 percent (one-half of the growth in 2010), given its high levels of private and public debt,

less competitive exchange rate, and more uncertain trade environment. Looking for a rebound from that quarter is a hope, not a strategy. Furthermore, China's rebalancing from investment to consumption (even if limited in scope) is bad news for the prices of industrial commodities.

On balance, the external environment is one that is less growth-inducing and more volatile than the prior decade. While US monetary policy may play a neutral role, it is difficult to envision a Europe where negative nominal interest rates persist indefinitely. The bonanza decade ended some years ago. It is time for LATAM's policymakers to have a serious reassessment of how that bonanza was managed.

NOTES

¹Carmen Reinhart et al., "Global Cycles: Capital Flows, Commodities, and Sovereign Defaults, 1815-2015," *American Economic Review* 106, no. 5 (2016): 574-580.

²Guillermo Calvo et al., "Capital Inflows and Real Exchange Rate Appreciation in Latin America: The Role of External Factors", *IMF Staff Papers* 40, no. 1 (1993): 108-151.

³Hélène Rey, "Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence," in *Proceedings*, Federal Reserve Bank of Kansas City Economic Symposium at Jackson Hole, 2015.

⁴Conference Board, n.d., <https://www.conference-board.org/data/>.

⁵Reinhart et al., "Global Cycles."

⁶Carmen Reinhart et al., "Debt Intolerance," *Brookings Papers on Economic Activity* 1 (Spring 2003): 1-74.

⁷International Monetary Fund, "World Economic Outlook Database," October 2018, <https://www.imf.org/external/pubs/ft/weo/2018/02/weodata/index.aspx>.

⁸LEBACs are short-term, domestic currency securities issued by Argentina's central bank. Large bunching of amounts coming due escalated roll-over risk, market illiquidity, and currency weakness at various points during 2018.

Monetary Policy and the Exchange Rate as a Shock Absorber

Rodrigo Vergara

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ABSTRACT

This article seeks to analyze some of the options available to Emerging Market Economies (EMEs) when deciding their monetary and exchange rate policies. In particular, what are the benefits and costs when they choose to have the exchange rate as the shock absorber. I argue that although there are costs of having a more variable exchange rate, in general the benefits more than outweigh these costs. The main benefit is precisely that the exchange rate makes a faster adjustment when the structural conditions of the economy change. I also study the case of Chile since it adopted a full-fledged inflation-targeting scheme in 2001. In this country the exchange rate is the shock absorber, and has moved when structural conditions have shifted. Notably, in Chile long-term interest rates have shown significant stability, while the volatility of the exchange rate has not been higher than that of other EMEs.

I. INTRODUCTION

During the 1990s and 2000s, several Emerging Market Economies (EMEs) adopted inflation-targeting frameworks for their monetary policies. Chile went on board in the early 1990s just after the law granting autonomy to the Central Bank of Chile (CBC) was passed. Inflation at that time was close to 30 percent, and the newly independent central bank decided to gradually bring down inflation until it matched the levels of developed economies. This process took about a decade (Figure 1), and in 2001 the CBC decided to have a permanent inflation target of 3 percent with a tolerance range of ± 1 percent.

A full-fledged inflation-targeting scheme requires, among other things, that the central bank have the necessary instruments to meet the target and that there are no conflicting goals.¹ Before 2000, this was not the case in Chile, since there were explicit targets for the exchange rate that could, on some occasions, compete with the inflation target. Indeed, until that year, there was an exchange rate band in place, and the CBC was committed to maintaining it through interventions in its limits, although it could also intervene inside the band.

When the exchange rate is allowed to float freely, it becomes the adjustment variable. If there is a negative external shock

such as a capital flow reversal or a decline in the terms of trade, it translates into a depreciation of the domestic currency. However, the fact is that many countries that have adopted inflation targets are not willing to let their exchange rate move freely, including both resource-rich economies in Latin America, Asian EMEs, and advanced economies where capital flows are the more prevalent external shock. It also happens that some economies present a significant degree of dollarization. In such cases, abrupt movements in the exchange rate can produce financial instability and inflationary disturbances as well.

In the next section, I review briefly the different trade-offs EMEs face when deciding on the shock absorber variable in their macroeconomic frameworks. Section III discusses the pros and cons of having the exchange rate as said shock absorber. Finally, in Section IV, I discuss the case of Chile, with mentions of some other Latin American countries as well.

II. MONETARY POLICY OPTIONS

In the classical Mundell-Fleming trilemma, if there is free capital mobility, it is not possible to have simultaneously a fixed exchange rate and control of monetary policy.² Hence under open capital accounts, central banks have to choose whether to control monetary policy or the exchange rate. If they decide to have control over monetary policy, then the exchange rate will be the adjustment variable or shock absorber. On the other hand, under a fixed exchange rate they will be unable to control monetary policy, and thus that will become the adjustment variable. There is also a third option, which is to close the capital account or to introduce some controls so as to have a partially open capital account, without totally free movements of capital.

In Latin America, many countries have moved to more flexible exchange rates. Additionally, most have fully or partially

abandoned capital controls, which have become increasingly difficult to use in a globally integrated world. Chile is a case in point. Back in the 1990s, the Central Bank had an explicit inflation target but was not willing to allow the exchange rate to float freely, keeping the exchange rate within a band. The forces at that time were for a more appreciated domestic currency, meaning that the exchange rate was functionally pegged to the top of the band. However, the experience of the debt crisis of the early 1980s, in which an appreciated currency led to a substantial current account deficit and to a debt buildup, produced big concerns of a possible new crisis that could follow a major appreciation of the peso. The quasi-fixed exchange rate, in practice, eliminated exchange rate risk, inducing even more capital inflows.

As those inflows were sterilized to meet the inflation target, they produced massive losses for the CBC. Most of the evidence³ for that episode shows that controls were either useless, or at best only marginally efficient in reducing capital inflows. At the central bank at that time the feeling was that they had some effect at the beginning, but as time passed markets found a way to avoid them. It is interesting to note that the instrument was enhanced several times during this period as markets were finding loopholes that had to be closed. All this ended in the late 1990s when the Asian crisis erupted, capital flows diminished, and the exchange rate depreciated. Since then, there have been no capital controls in Chile.

That said, it is important to mention that, after the Global Financial Crisis, capital controls are back in the economic discussion, mostly related to macroprudential policies. The IMF has softened its earlier vision on controls, and some EMEs have imposed them.⁴

III. THE EXCHANGE RATE AS A SHOCK ABSORBER

Why is it that many countries are so reluctant to have the exchange rate as a

shock absorber? One argument is that the volatility of the exchange rate may produce adverse effects on the real sector. As the real exchange rate is a key relative price, which in the short term is often determined by the nominal exchange rate, then the volatility of this key price will send confusing signals to the market, damaging the real economy. Another argument has to do with the foreign exchange debt of corporations and households. In particular, if these sectors are heavily indebted in foreign currency, a real depreciation of the local currency produces an increase of the debt burden and might end up in bankruptcies, with a negative effect on the overall economy. The debt crisis of the early 1980s that hit many Latin American countries is a clear example of that effect; Argentina's crisis of the early 2000s also has many elements of this sort. A third argument is related to the dollarization of the economy and the effects of the depreciation/appreciation on inflation. If the economy is highly dollarized, a depreciation will produce a proportional impact on inflation with little or no effect on the real exchange rate. If this is so, the volatility of the nominal exchange rate loses its main benefit, which is precisely to act as the adjustment variable or the variable that adjusts to bring things back to equilibrium. Any change in it will be offset by a corresponding change in inflation. Studies on the Exchange Rate Pass-Through (ERPT) coefficient show that, although it has declined over time, in commodity-exporting countries it is higher than in non-commodity-dependent ones, and that in Latin America it is relatively high as compared to other regions of the world.⁵

On the other hand, the most important advantage of a free-floating policy is precisely that the exchange rate makes the adjustment. If the structural conditions of the economy change, then the equilibrium real exchange rate shifts. The adjustment of this key relative price can be made either through a change in the nominal exchange rate, which is more rapid,

or through a decline in domestic prices, which is usually more gradual, costlier, and involves a deeper recession and higher unemployment. Latin America offers many examples of countries with a fixed exchange rate that they initially tried to defend, despite a significant shock to the economy,⁶ and eventually had to abandon this policy with all the costs associated with having postponed the decision until it was no longer sustainable. A floating exchange rate makes this adjustment easier.

Another advantage is that it allows for a more independent monetary policy, and in particular a countercyclical one. There are many examples of EMEs in different periods of time that, to maintain the fixed or semi-fixed exchange rate, have been forced to implement a more contractionary monetary policy, even in times of economic slowdown. The recent experience of Argentina is a case in point. In the midst of a recession, the central bank implemented a very contractionary monetary policy to sustain the exchange rate. Turkey and some other EMEs are examples of the very same phenomenon in recent months.

A flexible exchange rate regime also allows for a much more stable trajectory of interest rates. Indeed, while the exchange rate is more volatile, the interest rate is less so. It's either one or the other, unless effective capital controls are imposed. Those that favor the exchange rate as the adjustment variable implicitly assume that exchange rate volatility is not as damaging as interest rate volatility.

One of the ways to mitigate the negative effects of exchange rate volatility is making sure agents in the economy are aware of and internalize this volatility and the associated effects. If that is the case, and if a relatively deep derivatives market is available, they will cover the foreign-currency-denominated debt and their exports/imports in the market. The case of Chile is illustrative. After the currency was allowed to float freely about 20 years ago, corporations have

increasingly covered their foreign debt, so their net exposure is very low.⁷

Of course, this does not mean that a flexible exchange rate is cost-free. In all these policy options there are costs and benefits. For instance, even in a country used to exchange rate variations, if a variation is too abrupt it can also affect real activity. On the other hand, countries frequently suffer transitory shocks, such as a large and short-lived capital inflow, that do not change fundamentals but might have an impact on the exchange rate in the short term. It could be argued that in these cases the movement in the exchange rate is not optimal, since the appreciation will reverse rapidly, producing excess volatility. Although there is merit in this consideration, it is important to stress again that a deep financial and derivative market helps to reduce this volatility and that capital controls or forex interventions are not always an efficient solution to this problem.

Despite the benefits of having free floating exchange rates as the shock absorber, evidence shows that only a handful of countries are truly floaters.⁸ At least in the EM world, most countries intervene with a different degree of frequency in the exchange rate market to stabilize the domestic currency. In some countries, especially those with thinner markets, these interventions can have some effect. Peru, for instance, has achieved remarkable exchange rate stability with a policy of continuous interventions. There are also cases in which the intervention has some political driver. For instance, if the export sector is too strong (for example, if the agricultural sector either has a big weight in the economy or is overrepresented in the political spectrum), then it often puts pressure on the government or the central bank to intervene when the currency is appreciating.⁹

IV. THE CASE OF CHILE¹⁰

Since the year 2001, Chile has had a full-fledged inflation-targeting regime. The

inflation target is 3 percent with a tolerance range of ± 1 percent. The average headline inflation rate during this 18-year period has been 3.2 percent. This is a major reason why the inflation target in Chile is very credible; in the medium and long run, the target has been met. At the Central Bank of Chile, the time horizon for the inflation target has been defined at two years. That is, the operational target is that the projected inflation in two years' time is 3 percent. If inflation is projected to be above that number, then monetary policy should be more restrictive, and vice versa when projected inflation is below 3 percent. In a forward-looking Taylor Rule,¹¹ what matters most is expected inflation rather than actual inflation.¹² During all this period, the two-year expected inflation, as measured by a monthly central bank poll among economic analysts, has been very close to 3 percent (Figure 2). As seen in Figure 2, there have been four periods in which the two-year expected inflation departed from 3 percent. The first was in the early months of the inflation-targeting regime, and it was probably due to the fact that in the previous year inflation had been around 3.5 percent. Hence, in a sort of adaptive expectations mode, the expected inflation for a few months was the same number. Then there were two very brief periods (in 2003 and 2009) in which expected inflation was first slightly above, and then slightly below, 3 percent. Finally, the most important episode in which the two-year expected inflation departed from the 3 percent target was for about a year in 2007-2008.¹³ At that time there was some delay in the necessary tightening to keep expected inflation under control, thus both inflation and inflation expectations went up. The result was a significant tightening in 2007-2008, in which the monetary policy rate went from 5 percent to 8.25 percent. When the global financial crisis erupted, the CBC cut the monetary policy rate from that level to 0.5 percent in the first seven months of 2009.

When comparing inflation expectations in Chile and other inflation-targeting

countries in Latin America, it is seen that by a wide margin Chile has been closest to the target (Table 1 and Figure 3). While in Chile this difference has been 0.2 percent on average since the year of implementation of the inflation-targeting scheme, in Colombia it has been 0.8 percent, in Brazil 1.1 percent, and in Mexico 1.2 percent.

Of course, the fact that almost all the time the two-year inflation expectation was at 3 percent does not mean that the actual inflation rate was 3 percent. The Chilean economy is subject to many shocks, and hence inflation is volatile. What matters, besides the fact that expectations are well-anchored at a two-year horizon, is that on average actual inflation has been very close to 3 percent. However, interestingly, actual inflation has been within the target range of the central bank only 55 percent of the time, and the rest of the time it has been above or below that range (Figure 1).

One episode will help to illustrate the way monetary policy is conducted in Chile and the role of the exchange rate as the shock absorber. In 2013, after the Taper Tantrum episode,¹⁴ international interest rates increased, flows to EMEs declined, and currencies in EMEs depreciated. The Chilean peso was no exception. In addition, the price of copper, after reaching record highs in the previous two years, started to come down. All this produced a two-way phenomenon in Chile. On the one hand, inflation picked up and in April 2014 was already above 4 percent, over three percentage points higher than a year earlier. On the other hand, economic activity started to decelerate. In 2012 GDP growth was 5.3 percent, in 2013, 4 percent, and in 2014 it went down to 1.8 percent.

What should monetary policy do in this case? Inflation was up and growth down. The inflation shock was a supply shock and deemed to be a one-off shock. That fact was important to have in mind for the optimal monetary policy response. Additionally, the slowdown in activity led

to a downward revision to projections for future inflation. Hence, the Central Bank decided to run a more expansionary policy and cut interest rates by 200 basis points to 3 percent. Inflation stayed above target for more than a couple years, but eventually came down, proving that the monetary policy response had been optimal.¹⁵ The depreciation of the domestic currency was the optimal response to the negative shocks the economy was facing. The central bank could have attempted to stop the depreciation with a tighter monetary policy since the depreciation was producing transitory inflation. However, that would not have been the optimal policy response. As explained in this framework, the exchange rate is the shock absorber and should be allowed to find its new equilibrium level.

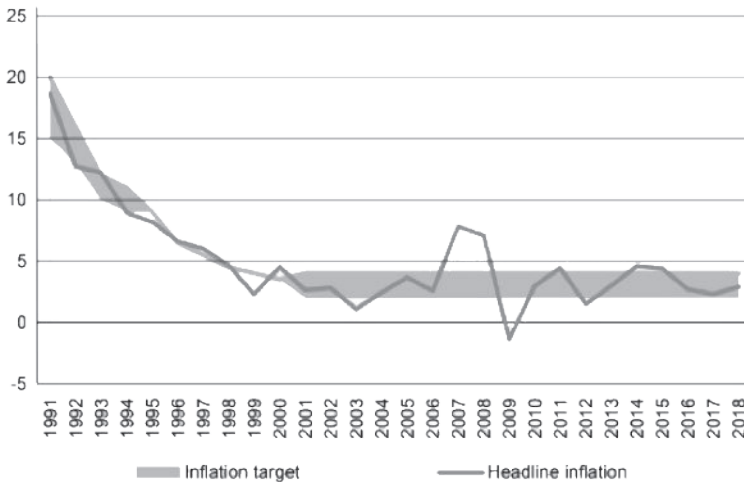
Here it is important to make two caveats. First, this episode makes clear that inflation targets must be “flexible” in the sense that the smoothing of the business cycle is very instrumental in achieving inflation targets, since both variables are intimately related.¹⁶ Second, when there is a cost-increasing supply shock, a tighter monetary policy response should not be taken for granted, provided that inflation expectations remain anchored. That was the case of Chile during this period, and it explains why a more expansionary policy could be implemented. During all the time that headline inflation was above the target range, the two-year expected inflation remained anchored at 3 percent. When in the second half of 2015, after one and a half years of inflation above the target range, the CBC perceived that there was a risk of de-anchoring expectations, it raised the monetary policy rate by 50 basis points to 3.5 percent, and that was enough to avert any risk in this sense. This did not happen in other Latin American countries that during this same period suffered similar events and, after an initial period in which they cut rates, they ended up raising them significantly amid an increase in both actual and expected inflation.

The final point I want to make addresses the volatility of the exchange rate and of the interest rate in an inflation-targeting scheme with a flexible exchange rate, based on the Chilean experience. I have argued that even though having the exchange rate as the shock absorber means more volatility of this variable, the benefits of this policy are such that they more than outweigh its costs. The questions that naturally arise are, what is the volatility of the exchange rate in a country that has implemented this monetary policy scheme, and how does it compare with other countries. Figure 4 shows some interesting facts.¹⁷ The left-hand side panel shows the volatility of the exchange rate *vis à vis* a group of commodity exporters and a group of EMEs between 2015 and 2018 using quarterly data. It shows that the volatility of the Chilean peso is about average as compared to these groups of countries. In some quarters it is above average and in some quarters below

average. In all quarters it has been within the 25th-75th percentile range.

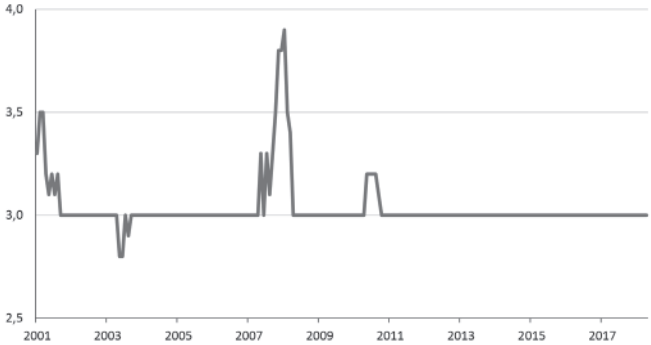
The right-hand side panel shows the volatility of the 10-year government bond interest rate for the same groups of countries and for the same period. Here Chile is clearly below average, and below the 25th-75th percentile range in most quarters as well. This leads us to conclude that at least during this period Chile, with a policy framework in which the exchange rate is the shock absorber, has enjoyed remarkable stability in interest rates without having above-average volatility in the exchange rate. Although there are many variables at play behind this result, it is safe to say that the higher the credibility of the monetary authority, the more likely that a policy that has the exchange rate as the shock absorber does mean more stability of interest rates and not necessarily excessive volatility of the exchange rate.

Figure 1: Headline Inflation and Inflation Target. Chile: 1991-2018



Source: Central Bank of Chile

Figure 2: Chile: Two Years Expected Inflation, 2011-2018



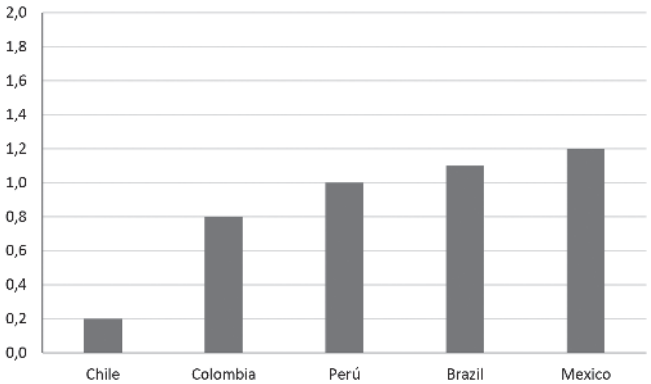
Source: Central Bank of Chile

Table 1: Inflation Target Versus Headline Inflation: Latin America

	Target	Target Range	Year of Implementation	Average Inflation (until dec. 2018)
Chile	3.0	2.0 - 4.0	2001	3.2
Perú	2.0	1.0 - 3.0	2006	3.0
Colombia	3.0	2.0 - 4.0	2010	3.8
Mexico	3.0	2.0 - 4.0	2002	4.2
Brazil	4.5	2.5 - 6.5	2006	5.6

Source: Central banks of the countries in the table

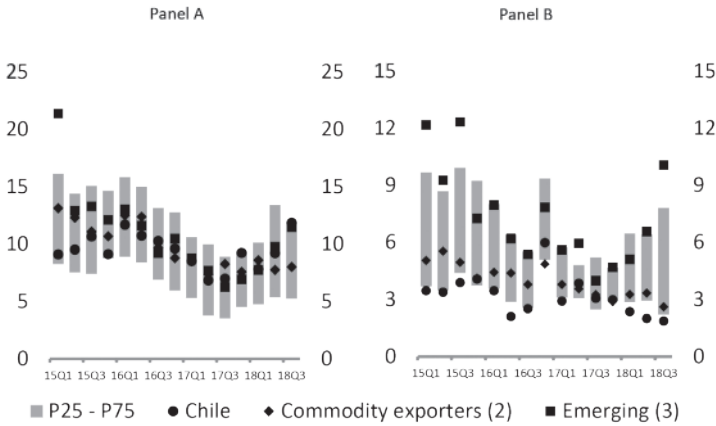
Figure 3: Difference Between Average Headline Inflation and Target Inflation*



* The period for each country corresponds to the one that goes from implementation of the inflation targeting (shown in Table 1) to December 2018.

Source: Central banks of the countries in the figure

Figure 4: Volatility of the 10-Year Interest Rates (Panel B (1)) and Y-o-y Exchange Rates (Panel A)



Source: Rosanna Costa

(1) Calculated as the standard deviation of daily change in rates. (2) Includes Chile, Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Poland, Russia, and Turkey. (3) Includes Australia, Canada, New Zealand, and Norway.

NOTES

¹By this we mean that there is only one nominal anchor (the rate of inflation). This implies that the exchange rate is not an additional anchor, i.e. there is a flexible exchange rate scheme, although forex interventions could be present. See Frederic Mishkin and Klaus Schmidt-Hebbel, “Does Inflation Targeting Make a Difference?” in *Monetary Policy Under Inflation Targeting*, eds. Frederic Mishkin and Klaus Schmidt-Hebbel, series on Central Banking, Analysis and Economic Policies, vol. 11, Central Bank of Chile, 2007.

²Rey (2015) has challenged this view, arguing that whenever capital is freely mobile, monetary policy is constrained by the global financial cycle regardless of the exchange rate regime. Hence, rather than a trilemma there is a dilemma: independent monetary policy is feasible if and only if there are capital account controls. See Helene Rey, “Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence,” NBER Working Paper no. 21162, May 2015 (revised in February 2018).

³Cowan and De Gregorio (2005) review the research on this matter and conclude that for the case of Chile, there is “no evidence that capital controls were able to reduce these inflows, although there is evidence that they had a limited effect on the composition of these inflows.” See Kevin Cowan and José De Gregorio, “International Borrowing, Capital Controls and the Exchange Rate: Lessons from Chile,” NBER Working Paper no. 11382, May 2005.

⁴See Barry Eichengreen and Andrew Rose, “Capital Controls in the 21st Century,” *Journal of International Money and Finance* 48 (2014): 1-16.

⁵See Rodrigo Vergara, “Inflation Dynamics in Latin America: A Comparison with Global Trends and Implications for Monetary Policy,” in *Inflation Dynamics and Monetary Policy*, Jackson Hole Symposium, The Federal Reserve Bank of Kansas City, 2015.

⁶Besides the problems of the foreign exchange denominated debt and the ERPT, there is usually a problem of credibility associated with the devaluation of a fixed exchange rate. Indeed, to abandon it produces a negative credibility shock as well.

⁷See Central Bank of Chile, “Financial Stability Report,” various issues.

⁸In Latin America, for instance, Peru and Argentina intervene frequently in the foreign exchange market while Brazil, Mexico, and Colombia have reduced the frequency of their interventions. Chile has not intervened since 2011.

⁹This could happen with import substituting sectors as well.

¹⁰For a more detailed analysis of Chilean monetary policy in the last decade, see Rodrigo Vergara, “Política Monetaria en Tiempos Complejos,” in *25 Años de Autonomía del Banco Central de Chile*, eds. Alberto Naudon and Luis Álvarez, series on Central Banking, Analysis and Economic Policies, vol. 23, Central Bank of Chile, 2016.

¹¹See John Taylor, “Discretion versus Policy Rules in Practice,” *Carnegie-Rochester Conference Series on Public Policy* 39 (1993): 195-214.

¹²See Lars E.O. Svensson, “Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets,” *European Economic Review* 41, no. 6 (1997): 1111-1146.

¹³As documented in Vergara (2018), these conclusions are robust to other measures of expectations, such as those implicit in market prices. See Rodrigo Vergara, “Experiencias de Política Monetaria en Economías Pequeñas y Abiertas: Chile 2012-2016,” *Estudios Públicos* no. 149 (2018): 105-135.

¹⁴When, in May 2013, the then Chairman of the Federal Reserve Board, Ben Bernanke, announced that the pace of asset purchases was going to be reduced. See Ben Bernanke, “The Economic Outlook,” Testimony Before the Joint Economic Committee, United States Congress. Board of Governors of the Federal Reserve System, 2013.

¹⁵Inflation remained above the target range for two and a half years because there was subsequent depreciation shock in 2014 and 2015.

¹⁶See Lars E.O. Svensson, “Flexible Inflation Targeting: Lessons from the Financial Crisis,” paper presented in the seminar *Towards a New Framework for Monetary Policy? Lessons from the Crisis*, The Netherlands Bank, Amsterdam, 21 September 2009.

¹⁷This figure is taken from Rosanna Costa, “Prospects for Inflation and Monetary Policy,” presented at the conference *Chile en Marcha: Un Análisis del Camino al Desarrollo*, Santiago, Chile, 14 December 2018.

The Sustainable Projects Management Office

José Ramón Valente and Juan José Obach

José Ramon Valente is the current Minister of Economy, Development and Tourism for the Government of Chile. During the last two decades he has been a permanent and active actor on public polices, macroeconomic issues, and financial markets in Chile. Among others, he participated in the design and application of the multiple fund scheme that is used today by pension fund managers in Chile. He has been a board member at several Chilean and foreign companies and was an active member of the board of Alter Ego Foundation, Universidad Del Desarrollo, and SEP (government companies system). He was a columnist for La Tercera newspaper, El Libero online newspaper, and radio panelist on Radio Duna. In the last presidential election, he led the team that developed content for the government program of the center-right coalition. José Ramon Valente has an MBA from University of Chicago (1988) and graduated with his bachelor's degree in economics from Universidad de Chile (1985).



Juan José Obach is the Head of the Sustainable Projects Management Office (GPS) for the Government of Chile. This newly created office, under the Ministry of Economy, Development, and Tourism, seeks to boost investment in the country by coordinating the permitting process of large investment projects, reducing permitting times and cutting red tape. He has worked as a researcher at the Center for International Development at Harvard University on topics related to productivity and economic growth, and also as a consultant at the OECD. Between 2010 and 2014 he worked in the Chilean Ministry of Social Development and in the Ministry of Labor and Social Welfare. He was also a columnist for the digital platform of La Tercera newspaper. Juan holds a Bachelor of Science in Business Administration and a Master of Science in Management from Universidad Católica de Chile. He also holds a Master in Public Administration and International Development (MPA/ID) from Harvard University.



Large investment projects are a source of economic and social development for countries. They increase the national income, are a source of employment, stimulate the local economies where they are located, and generate tax revenues for government. However, investment projects can also generate negative impacts on the environment, in the local communities, or in patrimonial or cultural assets. Therefore, modern states have a double challenge: they need to promote investment projects

through efficient and streamlined processes, along with setting high environmental standards and providing dialogue mechanisms for affected communities.

Some countries have already highlighted the importance of large investment projects for development by creating government offices dedicated exclusively to the coordination of projects. In some cases, these offices serve as a one-stop shop (single window) for certain types of

permits and authorizations. In others, they have a coordination mandate with other public agencies, in order to streamline the permitting process, reduce government response times, and provide guidance to project proponents.

In Chile, investment projects have been a key driver to sustain long-term economic growth. Since 1960, the investment rate has averaged 4.9 percent per annum in real terms, and in the last 30 years, 7.8 percent. Despite these high rates, which reflect a dynamic economy in terms of investment, Chile did not have a public agency dedicated to the task of coordinating large investment projects until 2018. In a country where large mining, energy, or infrastructure projects take, on average, 4.5 years to get all their permits and authorizations,¹ such a public office is enormously beneficial for the country's investment climate, ultimately lowering bureaucracy costs for project proponents along with modernizing the state capacity related to the approval of these types of projects.

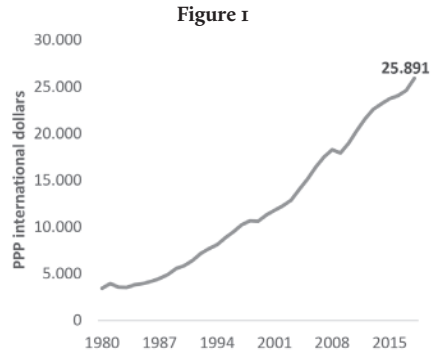
In May 2018, the Ministry of Economy, Development and Tourism of Chile launched the Sustainable Projects Management Office (GPS Office, using its acronym in Spanish). The goal of this public agency is to coordinate the country's major investment projects, to reduce permitting times, to design public policies to foster investment in the country, and to enhance the capabilities of the public agencies related to the approval of investment projects.

This article highlights the advantage governments have in creating an agency focused on the coordination of investment projects and, in particular, focuses on the creation of the GPS Office in Chile. First, we illustrate the importance of investment in Chile's successful story of economic development. Second, we detail the permitting process of large investment projects in the country and the need for an articulated action from the government to approve or reject them. Finally, we elaborate on the creation of the GPS Office and

how it aims to provide the Chilean state with an efficient institutional framework to support investment projects across the country.

THE IMPORTANCE OF INVESTMENT IN ECONOMIC GROWTH: THE CHILEAN CASE

Between 1980 and 2017, the per capita GDP of Chile went from \$3,430 to \$24,537 (Figure 1). That is, the income of the Chilean population in this period grew by a factor of seven. In the same period, the country managed to reduce poverty from 40 percent of the population in 1987 down to 8.6 percent in 2017.²



Source: *World Economic Outlook, IMF (October 2018)*³

A key driver that has sustained the economic development of Chile is investment. According to data from the Chilean Central Bank, from 1960 to 2017, investment has grown at an average annual rate of 4.9 percent in real terms. By 2017, investment represented 22.1 percent of the gross domestic product of the country. The development of investment, and in particular of large investment projects, is instrumental in improving the wellbeing of people for several reasons. First, investment projects are a source of employment. A new mining site, an electric generation plant, a modern food processing plant, or the construction of infrastructure works such as ports, bridges, subways, or highways demand high-skilled labor, with competitive salaries and access to social

security (health coverage and pension benefits).

Second, investment projects demand several services that foster local economic development. For example, mining sites demand transportation services for its workers from/to the nearest city, gastronomic services for workers, and hotel services for the executives who visit the mine. According to Cochilco, a Chilean public think-tank related to the mining industry, each direct job in mining generates three indirect jobs.⁴

Third, investment projects facilitate the adoption of new technologies, which are not only more efficient from an operational standpoint but are generally more environmentally friendly.

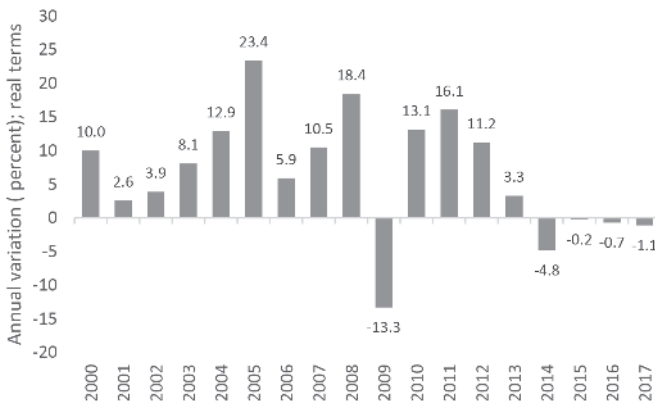
Although Chile has a strong long-term economic growth trajectory, in the 2014-2017 period the economy lost some of its dynamism. GDP growth slowed to an average annual rate of 1.7 percent and investment became a drag rather than an engine of growth, averaging -2.1 percent per annum (Figure 2). One of Chile's investment barriers is a long and burdensome permitting process for investment projects. This extended time generates a series of frictions and burdens for both project proponents and public agencies.

According to the National Productivity Commission, in Chile large investment projects take more than four years to get all their authorizations, and in some cases, they have to process more than 2,000 permits in more than 35 public agencies. This poses a double challenge for the government: how to balance an efficient and streamlined permitting process for investment projects with the compliance of high environmental standards and the generation of effective mechanisms to compensate affected communities.

THE PERMITTING PROCESS FOR INVESTMENT PROJECTS IN CHILE

In Chile, any investment project must obtain a series of permits and approvals that are granted by different public services, either at the central or regional level. In general, all the environmental permits are carried out through a one-stop shop or single window managed by the Environmental Impact Assessment System (SEIA); this process culminates with the grant of the Environmental Qualification Resolution (RCA), a permit that encompasses any permit with an environmental component. However, after the environmental permit is granted, investment projects require a series of sectoral permits, depending on the type of project. Finally, any project

Figure 2



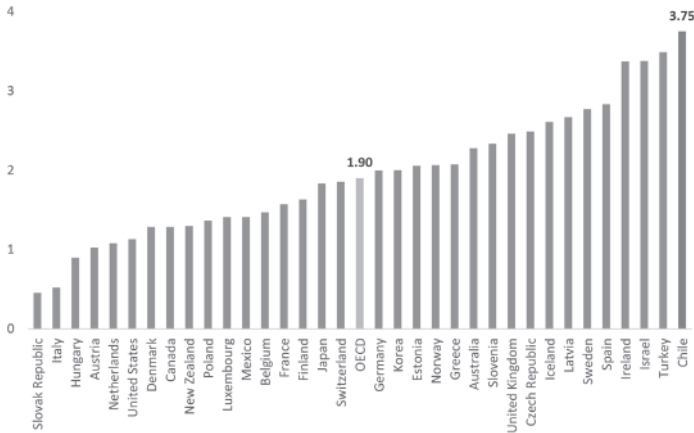
Source: Central Bank of Chile

Figure 3

Sector	Sub-sector	Required Permits	Involved Entities
Mining	Exploration	59	35
	Exploitation	212	16
Energy	Hydroelectric	162	27
	ENRC	175	27
Real Estate	Transmission	153	27
	Housing	133	25
Infrastructure	Road	149	26
	Hospital	180	29
	Subway	117	30
Industry	Agroindustrial Plant	127	23
	Chemical Plant	157	20
	Aquaculture Plant	139	24
	Cellulose Plant	168	30
	Water Treatment Plant	145	24
	Desalination Plant	131	24

Source: National Productivity Commission

Figure 4



Source: OECD, Product Market Regulation

must obtain construction and building permits in the respective city hall. Figure 3 illustrates 15 types of projects and the corresponding number of permits they need to obtain to operate.

The diagnosis of the quality, efficiency, and effectiveness of the Chilean government permitting process for investment projects is not encouraging. According to the Organisation for Economic Cooperation and Development (OECD), Chile has the most complex regulatory procedures of this group of countries (Figure 4), and government bureaucracy is perceived by Chilean companies as the second-

most-pressing factor to do business in the country.⁵

This diagnostic reveals not only a high burden for project proponents in Chile, but also the weak institutional capabilities of government agencies. As mentioned above, the lengthy project approval timelines and the large amount of permit requirements hinder the private sector’s tenacity to deliver new projects. Moreover, a large number of permits do not translate into higher environmental and social standards. According to the National Productivity Commission, developed countries are able to meet higher standards with

roughly half of the permits required by the Chilean state.⁶

In addition, the permitting process is highly fragmented and unarticulated. From experience, public agencies hardly coordinate with each other and respond exclusively to the particular mission for which they were created, so the system as a whole lacks a project perspective. This fragmentation generates disparities in evaluation criteria between and within agencies (regional versus central level), which ultimately generates uncertainty and further delays the permitting process. Therefore, a fragmented institutional framework makes it difficult for public officials to feel part of an investment ecosystem and to act in a coordinated manner.

THE SUSTAINABLE PROJECTS MANAGEMENT OFFICE

Countries that have successfully combined long-term economic growth with care for the environment and awareness for community rights have typically created governmental offices that coordinate and assist investment projects through the permit and authorization process. Canada created the Major Projects Management Office in 2007, a public entity under the Ministry of Natural Resources.⁷ This office was able to halve the total approval time (from four to two years) while also providing participation and dialogue mechanisms with indigenous communities. Another example is the Major Projects Facilitation Agency in Australia, which assists major projects (above \$20 million) at all development stages.⁸

Under the administration of the current president, Mr. Sebastián Piñera, the Ministry of Economy launched in May 2018 the Sustainable Projects Management Office (GPS Office, using its acronym in Spanish), with the main goal of coordinating major projects, reducing processing times, and providing greater legal certainty to both project

proponents and public agencies involved in granting permits.⁹

At a national level, there is bipartisan consensus in the creation of such a government office. The creation of the GPS Office was not only part of the program of Mr. Piñera, but it was also part of two other presidential candidates' programs.¹⁰ Likewise, the creation of a public office for project management has been proposed by independent bodies such as the National Productivity Commission and well-renowned national think tanks such as Valor Minero.

One of the main challenges of a project coordination office is to align the incentives that the different government agencies have, and make them collaborate towards the unique objective of having an efficient, disciplined, and modern state to approve investment projects. For this reason, the institutional framework of the GPS Office comprises a committee composed of ten Undersecretaries of State. This committee serves as a formal institution to provide information to each undersecretary about the performance of the public agencies under their mandate regarding investment projects' approval.¹¹

The GPS Office has the following three main objectives:

1. TO ACCOMPANY PROJECT PROPONENTS: act as an entrance door to the permitting process for project proponents and provide continuous support and feedback during the permitting process.

2. TRACKING AND MONITORING OF PROJECTS: constant coordination with more than ten public agencies about the progress of a portfolio of more than 240 investment projects (as of December 2018) that are in some stage of the permitting process.

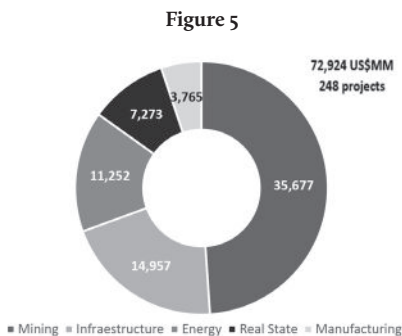
3. POLICY PROPOSALS: design and implement policies to increase the state's efficiency in terms of the permitting process of investment projects, with special emphasis on the upgrading and digital transformation process of public agencies.

The GPS Office intends to first introduce investment projects to all governmental offices that are entitled to issue permits or approvals to investment projects, in order to anticipate potential complexities and bottlenecks that they will face during the permitting process. Secondly, the office offers a continuous accompaniment to project proponents during the permitting process through a team of executives. Consequently, these executives interrelate directly with the public officers that evaluate the projects at different stages. To overhaul the entire permitting process not only allows for the state to have a complete tracking and monitoring of the lifecycle of investment projects, but it also reduces the project proponents' costs to coordinate with the state and helps identify bottlenecks and inefficiencies throughout the whole permitting process.

In order to convert all the information gathered by an investment project coordination office into an effective management tool, it is essential that those who make decisions within the state have permanent and easy access to that information. By December 2018, the office had identified 248 large-scale investment projects, with a total investment amount of \$72.93 million for the 2019-2023 period (Figure 5). All of this information is public, and the progress of each one of these projects is regularly updated for decision makers within the state.¹²

Finally, the GPS Office also designs and implements policies to enhance the efficiency of the state in terms of investment projects' approval. During the year 2018, the GPS office put in place the following initiatives: a pro-investment bill entered into Congress in May 2018, a mandate to the National Productivity Commission to study the regulatory burden of the permitting process, the implementation of a unique digital platform to submit permits, and an institutional alignment program to help public agencies to enhance their management capacities. The main driver for success in this area is the joint work with the corresponding public agency and the alignment of both parties towards a unique objective. Therefore, the process of modernization must be appropriated and led by the corresponding agency, rather than a mandate from the GPS Office.

In conclusion, large investment projects are a source of economic growth and prosperity for countries. They bring along employment and new technologies, and boost the local economies where they are located. However, given their complexity in technical, environmental, and social aspects, modern states should aim to have an efficient, simple, and streamlined process to approve investment projects. Coordination offices or one-stop shop agencies can serve as a means to achieve this goal. In 2018, the Chilean Ministry of Economy moved in this direction, by launching the Sustainable Projects Management Office. The main goal of this new public institution is to coordinate all the public agencies involved in granting permits and projects proponents, in order to reduce permitting times, streamline processes, and give more legal certainty to project proponents. Productive development policies of this type should be seriously considered by developing (and developed) countries that want to sustain long-term economic growth through high investment rates, but suffer from an excessive bureaucracy and an unarticulated state when it comes to large investment projects' approval.



Source: GPS Office, Ministry of Economy, Development, and Tourism

NOTES

¹Sustainable Projects Management Office estimations, based on the current portfolio of investment projects.

²World Bank Group, “Poverty Headcount Ratio at National Poverty Lines (% of Population),” n.d., <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=CL>.

³International Monetary Fund, *World Economic Outlook: Challenges to Steady Growth* (Washington, DC: IMF, 2018).

⁴Cochilco, *Minería en Chile: Impacto en Regiones y Desafíos para su Desarrollo*, 2013, https://www.cochilco.cl/libros/libro_mineria_en_chile_impacto_en_regiones_y_desafios_para_su_desarrollo.pdf.

⁵World Economic Forum, *The Global Competitiveness Report 2017-2018* (Geneva: World Economic Forum, 2017).

⁶National Productivity Commission, “Regulatory Assessment in Strategic Sectors” (preliminary draft), 22 May 2018, <http://www.comisiondeproductividad.cl/2018/05/revision-regulatoria-de-sectores-estrategicos/>.

⁷Government of Canada, Major Projects Management Office, homepage, n.d., <https://mpmo.gc.ca/home>.

⁸Government of Australia, Major Projects Facilitation Agency, homepage, updated 30 October 2018, <https://www.business.gov.au/advisory-services/major-projects-facilitation-agency>.

⁹Government of Chile, “Crea comite asesor de proyectos sustentables, y deroga decreto no. 202, de 2015, del Ministerio de Economía, Fomento y Turismo,” *Diario Oficial de la Republica de Chile* no. 42.099, 14 May 2018, <http://www.diariooficial.interior.gob.cl/publicaciones/2018/07/05/42099/01/1424710.pdf>.

¹⁰Ricardo Lagos, “Piensa en Chile,” March 2017, <http://www.ppdchile.cl/wp-content/uploads/2017/05/Piensa-Chile-PPD-RL.pdf>; Alejandro Guillier, “Programa de gobierno Alejandro Guillier Alvarez: Nuestras ideas para Chile,” n.d., <https://www.servei.cl/wp-content/uploads/2017/09/Programa-Alejandro-Guillier-Alvarez.pdf>.

¹¹The Committee is composed of the following ministries: Economy, National Assets, Energy, Mining, Public Health, Culture, Agriculture, Environment, Defense and Armed Forces, and Public Works.

¹²See Ministerio de Economía, Fomento y Turismo, Oficina de Gestión de Proyectos Sustentables, “Catastro de proyectos de inversión,” n.d., <https://www.economia.gob.cl/oficina-de-gestion-de-proyectos-sustentables>.

Invisible Walls: The Hyper-Density of Colombian Cities and What It Means to You

Simón Gaviria¹

Simón Gaviria was Director of Colombia's National Planning Department (2014-2017), and senior fellow at New York University. Currently, Mr. Gaviria is a Mason Fellow pursuing a Mid-Career Master in Public Administration (MC/MPA) at the Harvard Kennedy School.



Bogota is 13 times denser than New York City.² Colombian cities are 100 percent denser than the global average and 126 percent denser than cities in Latin America.³ Until now, the consensus has been that the largest determinants of density are population and income. An increase in population increases demand around an economic hub, increasing the price of land and allowing the required investments to achieve greater density. As incomes in societies increase, three associated phenomena occur: a fall in birth rates, the purchase of larger homes, and the emergence of more commercial buildings.⁴ For example, a low-income village may not require Whole Foods, Pilates studios, or an office complex.

Urban settlements have been around for 5,000 years, but there has been a surprisingly limited amount of evidence-based work to understand them. There is no standard definition for what a city is. One thing, however, that we can agree on regarding the anatomy of cities is density. Cities are places where strangers choose to live in proximity. Over time there have been more arguments against urban sprawl—that is, in favor of the idea that higher density is better. Compact cities can provide cheaper public services, competitiveness, and lessen our environmental impact. However, rarely do we hear about the relationship between a city, security, and density.

The first measurement of density for a sample of 109 Colombian cities gave a surprising result: Colombian cities are hyper-dense.⁵ The result seemed at odds with conventional knowledge. Colombian cities are not larger, wealthier, or poorer: in those metrics they are about average. Even after adjusting for these characteristics, the phenomenon persisted. Intermediate cities like Buenaventura were three times denser than Tokyo, and even smaller ones like Apartado were three times denser than Mexico City. Something was missing from the traditional way we think about cities: security.

After trying to understand the surprising results of Colombia, we found evidence that its cities are denser because of violence.⁶ Colombia has nurtured decades of civil conflict that has displaced nearly eight million people since 1985. Conflict and organized violence have been a constant throughout the country's history. The most recent peace treaty, the Teatro Colon peace agreement, put an end to decades of conflict between the Colombian state and "Fuerzas Armadas Revolucionarias de Colombia" (FARC). In negotiating the peace agreement, both sides identified areas of the country that had been disproportionately impacted by organized violence and conflict. The Colombian cities identified in the agreement as areas of high conflict were 40 percent denser than the

rest of the country. The first impression is that there appears to exist a relationship between security, city growth, and density.

Historically, cities were founded as places of refuge and commerce. The social experiment of the city, the clustering together of strangers, thrived because of the perception of safety and certainty. Early cities projected this guarantee of safety through the construction of walls that ensured that those within the city would be safe. It comes as no surprise, therefore, that in Chinese the character 城 (chéng) means both city and wall. From medieval European cities protecting themselves from Viking raids to new African cities that have developed in response to decades of civil conflict, cities have provided the promise of security.

As city-states were absorbed by nation-states through the 19th century, the responsibility for safety and security shifted from the city to the nation. Defense and security, the previously elemental purpose of cities, lost its valence and allowed city leaders to invest in other infrastructure and amenities, which made cities more attractive. Louis XIV, the French king, to take one example, enlarged his empire through military conquests in the 17th century, which enabled him to knock down fortifications in Paris and transform the walled city into a city with new spaces for walking and leisure.

When this security logic is applied to a global sample of cities,⁷ the relationship between organized violence and density becomes stronger. If we rank cities in a global sample by the number of incidents of organized violence, cities in the top quintile were 78 percent denser than the others.⁸ Organized violence and conflict have not only contributed to hyper-density in Colombian cities, but also around the world. For every 10 percent increase in incidents of organized violence, such as a terrorist-group-sanctioned bombing or religious violence, there is a 0.6 percent increase in the density of a

city.⁹ Increased organized violence can help explain rising densities in cities like Baghdad and declining densities in cities like Berlin. While cities are currently heralded as beacons of productivity, sustainability, and openness, for a large section of world and Western history, organized violence and conflict continue to determine how and where people choose to live.

While the stigma of violence may dampen tourism and foreign investment, people who live in violence-prone areas search for “relative security.” This might mean a Muslim leaving his village in India to find protection in the anonymity of a city, or a Colombian refugee leaving his hometown for the militarized safety of the state capital. As the relative security between two locations increases, people flee the more dangerous area for the safer one. Relative security serves as an invisible wall that restrains the growth of cities’ built-up areas while increasing the total population. In Bogota, 90 percent of population growth between 1990-2015 occurred in the already-developed areas of the city. Rather than blobbing out and consuming land on the periphery, Bogota’s built-up area absorbed the demand for new housing by residents. The city was contained. In contrast, more than 80 percent of Madrid’s population growth during the same time period occurred in previously undeveloped areas. The city had urban sprawl.

On a more positive note, as countries like Colombia work to end longstanding civil conflicts and transition to peace, a new set of challenges await them. With peace on the horizon, we expect densities to decline as more Colombians spread out and consume more land without fear of drug cartels or guerrilla groups. The hyper-density of Colombian cities is not likely to continue as security threats wane and GDP increases. If peace delivers on its promise of reduced violence, densities in Colombian cities will decline as people take advantage of cheaper and safer land outside of cities. All of this reshuffling of people and land will require a 215 percent

increase in urban land by 2050. The compounded effect could be even greater if improvements in security lead to even higher GDP per capita in the country. The planning decisions made in Colombia's cities over the next 20 years will determine how its cities develop, not only for decades but for the next couple of centuries.

Security matters. Security affects where people live and how they live. For most of human history, it has been a primary influence on the creation and development of cities. In most Western cities, from the development of the nation-state until today, security has given up its relevance to other considerations such as mobility or productivity. In many cities it has become a nuisance or a quality-of-life issue rather than an organizing principle. As acts of terrorism capture headlines or nation-building projects are underway, security should get its rightful place in the conversation about what makes a good city. In almost a third of the global sample we examined, there has been at least one incident of organized violence in the last 15 years.¹⁰ New walls are emerging either through gated communities or the surveillance of technology. If this new age of terror continues, security in cities—which

we thought no longer mattered—will affect where and how people choose to live once again.

NOTES

¹This paper is a snapshot of a working paper co-written by Gaviria, published by the Marron Institute as a working paper, and in the process of publication in a peer-reviewed journal: Simon Gaviria et al., "Invisible Walls: Measuring the Impact of Organized Violence on Urban Expansion," NYU Marron Institute of Urban Management, Working Paper no. 41, July 2018, [https://marroninstitute.nyu.edu/uploads/content/Invisible_Walls_Final_Paper\(1\).pdf](https://marroninstitute.nyu.edu/uploads/content/Invisible_Walls_Final_Paper(1).pdf).

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⁶Gaviria et al., "Invisible Walls."

⁷Shlomo Angel et al., "Atlas of Urban Expansion—2016 Edition," Lincoln Institute of Land Policy, 2016, <http://atlasofurbanexpansion.org/>.

⁸Gaviria et al., "Invisible Walls."

⁹Gaviria et al., "Invisible Walls."

¹⁰Gaviria et al., "Invisible Walls."

Commitment to Deliver: Governance Innovation in Buenos Aires

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Fernando Straface has been the Secretary-General and the Secretary of Foreign Affairs of the City of Buenos Aires since December 2015. He is one of the founders and former Executive Director of CIPPEC, Argentina’s top think tank, according to the 2017 edition of the Global Go To Think Tank Index. Previously, he worked as a Governance Specialist at the Inter-American Development Bank in Washington, DC, leading projects across 14 countries in Latin America. He holds a Master in Public Administration from the Harvard Kennedy School of Government and a BA in Political Science from USAL in Argentina.



ABSTRACT

In February 2016, the new mayor of Buenos Aires, Argentina announced the priority goals for his term in office. These were not generic aspirations; they included specific targets, trajectories, and deadlines. Since then, the city has continually published the progress made to deliver on those commitments. Two separate effects of this practice have been documented. First, it has contributed to aligning the complex machinery of government behind clear priorities, with a focus on improving performance and delivery. Second, it has enhanced citizen trust in the government. This brief paper analyzes this innovation, its impacts, and lessons for other local governments.

INTRODUCTION

Cities have a growing role in the development of nations. For the first time in history, over half of the world’s population live in cities, and this trend will expand in the coming decades. Moreover, cities are increasingly critical as hubs for ideas, knowledge, and innovation, which are the main drivers of economic growth. Thus, the delivery capabilities of city governments have become more relevant given

the need to address the urban challenges that arise from their growth. Moreover, cities are often responsible for implementing the policies and projects designed by central governments. In this context, innovations to enhance delivery capacities at the local level can distinguish a successful city from a struggling one.

In February 2016, the new mayor of Buenos Aires, Argentina, Horacio Rodríguez

Larreta, announced 20 priority goals (“Government Commitments”) for his term in office, with quantitative targets and specific deadlines for each of them. These commitments ranged from typically municipal functions, such as fixing 100 percent of potholes or removing abandoned cars within 15 days of being reported; to more complex policy objectives, like doubling the proportion of students with high performance in math or reducing traffic fatalities by 30 percent. Since then, the city government has communicated these goals extensively to ensure they are known by all citizens; it has monitored delivery through a systematic management model; it has published the data on the progress made towards achieving these goals, using previously defined trajectories as benchmarks; and it has taken new public commitments.

This brief research paper analyzes the government commitments of Buenos Aires, comparing this innovation to relevant international experiences such as “Stat” models in American cities and “Delivery Units” as originated in the United Kingdom. It documents its results, both within city government and in its relation to the citizens of Buenos Aires. Finally, it presents key lessons for other cities implementing similar approaches.

DELIVERING ON GOVERNMENT PRIORITIES

One of the main innovations in governance in recent years is the development of management models that focus on key government priorities. The creation of the Prime Minister’s Delivery Unit in the United Kingdom, in 2001, was replicated in several countries since then, with Chile’s *Unidad Presidencial de Gestión del Cumplimiento* in 2010 as a relevant regional example.¹ These units are responsible for specifying the chief executive’s key priorities for his or her term in office (with measurable targets and trajectories), and for ensuring systematic routines to monitor progress and unblock obstacles. Thus, priority goals are not treated as “business as usual.”

At the local level, several American cities have developed similar models. Since the introduction of CompStat in New York City in 1994 to improve policing and CitiStat in Baltimore in 2001 to improve service delivery in general, dozens of cities have adopted management tools to optimize performance in selected priority outcomes.² However, a few Latin American cities have replicated a similar approach. One of these exceptions is the city of Buenos Aires.

THE MAYOR’S “PUBLIC COMMITMENTS” IN BUENOS AIRES

The first director of the United Kingdom’s Delivery Unit, Michael Barber, has differentiated between “government by spasm” and “government by routines.”³ The first approach is characterized by vague aspirations and crisis management, while the second one is characterized by clear definitions of success and persistent oversight. The latter approach involves the need to define specific goals and to establish a routine of monitoring and problem-solving. Even if this seems obvious, most governments across the world lack the discipline to keep a systematic approach in the midst of a 24/7 news cycle, crises, or unexpected events.

Between 2008 and 2015, current mayor Rodríguez Larreta served as chief of staff to then-mayor Mauricio Macri (now president of Argentina); in this role, Rodríguez Larreta led the implementation of a disciplined management model, based on ministerial goals and periodic data-driven review meetings led by the mayor or his chief of staff. After taking office in December 2015, the new mayor enhanced this approach by announcing publicly the “Government Commitments” (*compromisos de gobierno*), a set of priority goals with specific targets and deadlines.

The overall government plan for the mayor’s term consists of over 1,200 programs and projects. The government commitments were, originally, 20

high-priority goals, either corresponding to a specific program or project from the government plan or, most often, an aggregate goal combining several programs or projects, sometimes involving more than one ministry (most commitments are *outputs* of the government's work, with some *outcomes* as well). Due to the perceived positive effect of the initiative, the mayor took additional commitments at later dates, totaling over 50 goals during the first three years of his term. This expansion was certainly in tension with the notion of focusing the Commitments on key priorities.

The Public Commitments were selected to satisfy two criteria that are often in conflict, as few policy initiatives can maximize both: impact and feasibility of delivery (see Figure 1).⁴ From an initial definition of priority policy areas by the mayor, a team within the Secretary-General's Office (a "Delivery Unit") identified a set of potential public commitments. These were discussed within the Center of Government (a policy unit including the mayor himself, the chief of staff, the communications office, political advisors, and the planning and budget office) and with the sectoral ministries, narrowing down the list to the ones finally announced. The setting of specific targets for each goal attempted to find the right balance between ambition and realism (see Figure 2).

To ensure that the public commitments achieved their purpose, it was critical that they were not perceived as "just another announcement." Thus, they were set very early in the mayor's term: this would help them actually align the ministries' work before other sectoral agendas took over. The progress or delays were continually published through an online dashboard,⁵ which promoted more accountability and pressure to deliver. The mayor's and the ministers' communications teams used the Commitments and their milestones to inform public activities and speeches, helping to expand citizen awareness.⁶ Additionally, the mayor periodically held town halls to report on the delivery of

the Commitments and to take questions about them.⁷

This level of accountability was possible because the government had in place a management model that strengthened delivery and provided early alerts of potential delays or crises in performance. For the Public Commitments, in particular, the Delivery Unit could rely on the periodic review meetings (led by the mayor or the chief of staff, with support from the planning office) but also on its bilateral interaction with the respective sectoral ministries to monitor progress. The existence of an already embedded routine of review meetings and a culture of collaboration across the government helped to avoid the adversarial relation between the Center of Government and the sectors that was typical in other cases. As of January 2019, less than 10 percent of the Public Commitments were at risk or delayed in meeting their trajectories.

THE IMPACT OF THE PUBLIC COMMITMENTS

The Government Commitments were expected to have two main effects. First, they should contribute to align a broad and complex public sector (such as the government of the City of Buenos Aires, with an annual budget of US \$10 billion and almost 150,000 employees) behind certain clear priorities, set by the mayor. And second, they should increase citizen trust in an administration that is willing to raise the bar in terms of accountability and transparency.

In 2017, Torcuato Di Tella University conducted a study to assess the impact of the Public Commitments within the government.⁸ Through interviews with officials of different levels of seniority in multiple ministries, the study concluded that the Commitments had indeed contributed to internalize the vision and priorities fostered by the mayor. The existence of cross-ministerial goals also helped the horizontal coordination of ministries that shared responsibility for certain

commitments. At the same time, the study also found the need for better dissemination of the Public Commitments among lower-ranked officials, a task that the Delivery Unit has since reinforced.

In terms of the impact on the relation between citizens and government, the Delivery Unit conducted three randomized controlled trials (RCTs) to identify the effect of knowing about the Commitments on different measures of public trust. Through online surveys of Buenos Aires' residents, among those with no prior knowledge of the Commitments the samples were randomly divided into two groups: half of them were immediately asked questions related to trust in the city government, and the other half were only asked those questions after being invited to surf the online dashboard. In every iteration of the experiment, being exposed to the Commitments led to significant positive effects on citizen trust in government. Therefore, the evaluations of the Public Commitments initiative in Buenos Aires show positive impacts, both internally within the government and externally in its relations with citizens.

Although not measured in specific studies, three additional effects of the Public Commitments can be suggested. First, they contribute to structure the government's communications and public events, providing clear purpose and goals for each intermediate milestone. Second, they help clarify priorities for budget allocation and management. And third, they add objective evidence and data to the public debate of policy issues.

CONCLUSIONS AND FINDINGS FOR OTHER LOCAL GOVERNMENTS

The case of Buenos Aires and other experiences highlight a number of key success factors:

- The strong personal involvement of the chief executive is needed to signal,

internally, that *delivery matters*. Announcing goals with no follow-through, or establishing formal monitoring routines without decision-making capacities, will most probably not lead to any changes in government performance.

- Making the priority goals *public* can help push for better results. The public announcement by the chief executive acts as a "point of no return": it limits the room for delays or retargeting, as they would generate political costs for the ministry and the government as a whole. Thus, it is a powerful incentive to redouble the effort, resources and creativity devoted to achieving the mayor's priority goals.

- At the same time, taking public commitments requires the combination of solid planning capabilities with political sensitivity, and Center of Government teams leading such initiatives need both skills.

- *If everything is a priority, nothing is a priority.* The most difficult part is deciding what is *not* a priority, but it is essential (and useful) in order to allocate time, resources, and political capital in ways that maximize delivery of high-impact goals. This prioritization should be informed by evidence, but it is a political process and the Chief Executive should personally "own" those goals.

- The capabilities needed to run a "Stat" or "Delivery Unit" management model are not rocket science. Managerial, technical, and analytical skills are certainly required (and they are critical to add value to the process), but the hardest part is to sustain the discipline and the routines despite the day-to-day events.

- The ability to deliver is especially relevant for local governments. National outcomes may be influenced heavily by external factors (the international price of commodities, interest rates in the United States, demand from China, and so on), but citizens are very much aware whether the streets are clean, public transportation runs on time, and parks are safe. And they definitely know who is responsible for this.

Few cities in Latin America have adopted "Stat" or "Delivery" models. The

case of Buenos Aires can illuminate the potential of this approach.

NOTES

¹Martin Alessandro et al., *Governing to Deliver. The Role of the Center of Government in Latin America and the Caribbean* (Washington, DC: Inter-American Development Bank, 2014); Jennifer Gold, *International Delivery: Centres of Government and the Drive for Better Policy Implementation* (London: Institute for Government, 2014).

²Robert D. Behn, *The Performance Stat Potential: A Leadership Strategy for Producing Results* (Washington, DC: Brookings Institution Press, 2014).

³Michael Barber, *How to Run a Government So That Citizens Benefit and Taxpayers Don't Go Crazy* (London: Penguin Random House, 2015).

⁴"Impact" was operationalized by estimating the number of citizens expected to benefit, the relevance of that benefit, and the value given to it by public opinion. "Feasibility" included the cost and the complexity of the delivery chain. Because the commitments were selected in a short time frame between taking office and their public announcement, these estimations had to combine hard data with informed judgement. And their actual value was often part of the subsequent discussions, leading to the final decision.

⁵Buenos Aires Ciudad, "Compromisos de Gobierno," n.d., www.buenosaires.gob.ar/compromisos.

⁶In June 2017, only 14 percent of Buenos Aires'

residents were aware that the mayor had made the Public Commitments; by September 2018, this proportion had grown to 30 percent. However, specific goals were much better known than the overall initiative. In June 2017, the best-known Commitment was the goal of ensuring a subway frequency of every three minutes in rush hour on every line (48 percent); in September 2018 it was the goal of reaching 100-percent LED lighting in streets and parks (63 percent). (Source: surveys by the Delivery Unit.) Part of the reason for this growth was the increase in unique visitors to the online dashboard. Heavily promoted by the government communication's team, which saw its value in terms of providing objective data about changes in the city, it passed the mark of 1 million unique visitors in late 2018. For reference, the internal site for one of the Commitments (installing 10,000 cameras in public spaces) was among the top 20 most-visited government websites in 2018, a ranking otherwise dominated by transactional or informational sites (appointments, requests, information on drivers' licences, etc.).

⁷Kate Jones, *Working With Mayors to Create Prosperous Places* (London: Winston Churchill Memorial Trust, 2018).

⁸Carlos Freytes, "Estudio del proceso de implementación de los Compromisos de Gobierno al interior de la administración de la Ciudad de Buenos Aires," unpublished manuscript, Universidad Torcuato Di Tella, Buenos Aires, 2017.

⁹Martin Alessandro et al., "Transparency and Confidence in Government. Evidence from a Randomized Survey Experiment," unpublished manuscript, Inter-American Development Bank, 2018.

Energy Innovation: The Case for Regional Leadership and the Tool to Boost Productivity to Advance Long-Term Growth

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There are three elements that point to energy innovation as the tool to both improve productivity and to create the conditions to support regional leadership.

First, *political consensus*. In 2015, the international community reached consensus about the challenges that humanity is facing for its long-term livelihood in terms of habitability on earth and in terms of the wellbeing of mankind.

Second, energy is the largest contributor to greenhouse gas emissions, and given the *energy outlook*, this sector has the biggest potential to contribute to a sustainable development path if there is an effort to incorporate an “energy efficiency first” business model and a switch towards renewable energy and clean fossil fuels.

Third, *international cooperation*, because basic science, research and development, and innovation are areas in which knowledge is transmitted only through open platforms of exchange between individuals, institutions, and countries, and only then breakthroughs can happen. If we join these three elements, energy innovation becomes the tool to boost productivity in Latin America.

POLITICAL CONSENSUS

In September 2015, as part of the celebration of the 70th anniversary of the creation of the United Nations Organization, the heads of state and government and the principal representatives present at the UN headquarters decided to adopt the 2030 Agenda for Sustainable Development.

They committed to promote the sustainable development agenda in its three dimensions—economic, social, and environmental—in a balanced and integrated manner, for which it is essential to guarantee lasting protection of the planet and its natural resources, and where there is universal access to a supply of affordable, reliable, and sustainable energy.

In particular, in Goal 7 the United Nations established the following:

“. . . 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix; 7.3 By 2030, double the global rate of improvement in energy efficiency 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and

advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology . . .”

On 15 June 2018, the G20 energy ministers committed themselves in their joint statement to promote the energy transition through innovation in energy systems, to make them cleaner and more sustainable.

On 12-13 December 2018, the ministers of the Latin American Energy Organization (Olade) met to celebrate the 45th anniversary of Olade’s creation and to discuss an agenda forward that included integration, energy transitions, and the role of innovation in the development of the energy systems of the future for the region, identifying the need to collaborate further, promoting joint research and development.

ENERGY OUTLOOK

According to the International Energy Agency (IEA), global energy demand will increase 30 percent by 2040, or the equivalent of doubling the energy consumption of China and India together, and in Central and South America it will grow 40 percent. In the IEA’s New Policies scenario, it is estimated that two-thirds of world investment will focus on renewables, insofar as they continue to be the lowest-cost alternative for new generation of electricity. To boost this growth, it is necessary to invest in the development of technologies and policies to enter new markets and make existing markets more competitive.

CLEAN ENERGIES

To achieve the goals of electricity generation by 2040 and to have a cleaner and more sustainable energy matrix, investment in renewables requires an annual growth of 6.5 percent. This demands a more accelerated deployment of all renewable technologies, which requires

investment in technological development that allows increasing the use of natural resources at more competitive prices; as well as strengthening the transmission and distribution infrastructure that allows integrating a large amount of intermittent generation, and that can incorporate technologies that adjust to the new trends of automation and digitalization. The challenge is to provide reliable, affordable, and emission-free energy.

ENERGY EFFICIENCY

To moderate the growth in primary energy demand, it is essential to promote energy efficiency measures that help us move towards less intensive forms of economic activity in energy such as services or light industry, particularly in emerging economies. It is estimated that between 2016 and 2050 the growth rate of global primary energy will increase 1 percent annually (versus 2 percent between 2000 and 2016) due to energy efficiency policy, particularly in industry. To continue with this trend, investments of close to \$1 trillion are required by 2050, for which it is necessary to invest in research and technological development to improve buildings (thermal insulation, space conditioning, and lighting), accelerate the electrification of transport, and promote super-efficient energy management systems in industry. The challenge is to reduce energy intensity, or the energy required to generate a unit of gross domestic product.

CLEAN FOSSIL FUELS

The consumption of fossil fuels will continue to grow in the coming decades due to the increase in petrochemicals and the demand for aviation and cargo transportation. To meet this growing demand, the approval rate for conventional crude projects must be doubled and the production of unconventional resources (shale) must increase by at least 10 million barrels per day by 2025, the equivalent of

current production from Russia. However, to meet these requirements and make them compatible with the 2030 Agenda for Sustainable Development, it is necessary to invest in technology development to eliminate fugitive emissions, reduce associated gas flaring, and deploy carbon capture, use, and storage technologies. The challenge is to reduce and eventually eliminate the carbon footprint of fossil fuels.

INTERNATIONAL COOPERATION

Building a new company or preparing a new product for the market takes a lot of time and a lot of capital. In the early stages of the process, governments finance basic science; in the last stages, when technologies are cost-competitive, companies implement them on a large scale. The intermediate space, where a great idea is validated and refined again and again until it can be commercialized, requires a different investment approach.

Acknowledging this different approach in investing on 30 November 2015, the presidents of Brazil, Chile, and Mexico joined other 17 countries in an initiative called Mission Innovation (MI) to accelerate global innovation in clean energy. Members committed to double their research and technological development budget in clean energy between 2015 and 2020, and at the same time encourage the private sector to invest in disruptive technologies.

This call to action was joined by the private sector deciding to collaborate towards the same goal as MI. A group of 23 business leaders decided to create Breakthrough Energy Coalition (BEC). It is an initiative of private investors who committed to create a fund of \$100 billion, with the purpose of investing it in the countries of MI in order to accelerate the development and deployment of clean energy technologies.

In addition to BEC, the CEOs of the 10 largest oil companies in the world created the Oil and Gas Climate Initiative (OGCI) with the aim of investing in projects against climate change. For this purpose, they created an investment fund where each company will contribute \$10 million a year until reaching \$1 billion, to invest in three areas: CO₂ recycling, CO₂ reduction, and reducing fugitive methane emissions.

However, there is still that intermediate space where there are no investment vehicles or institutions that can link early-stage research and development, and deployment and commercialization of new technologies.

Latin America can boost productivity and advance long-term growth by using energy innovation. First, if the countries take advantage of these existing initiatives (MI, BEC, OGCI), given that they already have the political commitment (SDGs), and the growth prospects for the region are strong (energy outlook). Second, take leadership in creating an investment vehicle that focuses on the intermediate space in which neither governments nor the private sector invests.

Olade can be the convening institution of such an initiative. According to the Barómetro de la Energía de América Latina y el Caribe 2018, 75 percent of the population in the region perceive that there would be a positive impact from a stronger integration coming out as a result of focusing on research and innovation, and knowledge transfer.

Olade has a wide representation in the region with 27 countries from Latin America and the Caribbean, and in the XLVIII Ministerial in Montevideo, they approved a change in its bylaws to allow for the participation of private, international, and non-governmental organizations. Through its wide regional representation, a small fraction of investment per member

country and organization, Olade can create the scale for the investment vehicle to focus on that particular segment of the innovation ecosystem, and finally promote regional leadership learning from the experiences of Brazil, Chile, and Mexico in ML.

NOTES

¹UN General Assembly, *Transforming Our World: The 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1, <http://www.refworld.org/docid/57b6e3e44.html>.

²UN General Assembly, *Transforming Our World*.

³International Energy Agency, *World Energy Outlook 2017* (Paris: OECD, 2017).

⁴International Energy Agency, *Tracking Clean Energy Progress* (Paris: OECD, 2018).

⁵Breakthrough Energy Coalition, "Powering the Way Ahead," n.d., <http://www.b-t.energy/>

landscape/electricity/.

⁶International Energy Agency, *Perspectives for the Energy Transition: The Role of Energy Efficiency* (Paris: OECD, 2018).

⁷International Energy Agency, *World Energy Outlook 2018* (Paris: OECD, 2018).

⁸Oil and Gas Climate Initiative, *At Work: Committed to Climate Action*, September 2018, https://oilandgasclimateinitiative.com/wp-content/uploads/2018/09/OGCI_Report_2018.pdf.

⁹Breakthrough Energy Coalition, "A Unique Group," n.d., <http://www.b-t.energy/coalition/>.

¹⁰Mission Innovation, "Overview," n.d., <http://mission-innovation.net/about/>.

¹¹Breakthrough Energy, "Who We Are," n.d., <http://www.b-t.energy/coalition/who-we-are/>.

¹²Oil and Gas Climate Initiative, *At Work: Committed to Climate Action*.

¹³OLADE, *Barómetro de la Energía de América Latina y el Caribe 2018*, December 2018, <http://biblioteca.olade.org/opac-tmpl/Documentos/oldo422.pdf>.

Latin American Cities in the Fourth Industrial Revolution: The Potential and Social Risks of Smart-Cities Technologies

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ABSTRACT

In the wake of the implementation of smart-city technologies in Latin American cities, this article reviews both their potential for making municipal administration and local service delivery more efficient and the risk they pose, particularly to vulnerable communities. Based on the literature and the international experience on the social and policy effects of algorithmic decision-making, it proposes a few criteria that local and national governments in the region should keep in mind to prevent some of the undesired effects that the implementation of these tools may have, while harnessing their benefits.

1. INTRODUCTION

Digitalization is transforming cities all over the world, and Latin American large cities are not the exception. Perhaps the most intuitive example is how the Internet of Things (IoT) has transformed mobility.¹ As a user, think, for example, of ride-hailing apps like Uber, apps that let you know in advance when the next train or bus is coming, and traffic navigation apps like Waze. Municipal governments, however, use similar apps to gain real-time knowledge about traffic in cities, and to monitor and plan their transportation systems and policies more accurately and efficiently. These technologies have changed the way we move, live, think, and plan cities, and they all depend on the spread of smartphones, sensors, and internet connectivity. In Latin American cities, where 80 percent of the regional population lives in urban areas and around half of the total urban population of Latin America lives in relatively few large cities, these technologies promise to be potential solutions for the many challenges that the high

rates of urbanization pose for local and national governments.²

This article reviews the potential and challenges that smart-city technologies pose for Latin American cities from a legal and social policy perspective. I refer to these technologies as smart-city technologies, as they are referred to in the technology market, but refrain from referring to Latin American cities as “smart,” as we still have a way to go to get there.³ As they are implemented in the region’s cities—and especially so in fields that have considerable impact on people’s lives, from healthcare to security and criminal justice systems—I propose a few criteria that local and national governments in the region should keep in mind to prevent some of the undesired effects that the implementation of these tools may have, while harnessing their benefits. These recommendations are based on the literature and the international experience on the social and policy effects of algorithmic decision-making.

2. “SMART-CITY” TECHNOLOGIES: WHAT THEY ARE AND THEIR POTENTIAL

Smart-city technologies are technologies specifically oriented to use data collection and analytics to make all sorts of service provision in cities more efficient. Cities are great sites for data collection. The agglomeration phenomenon that creates cities—in which people and businesses situate themselves geographically close to each other because of the information and knowledge spillovers that result from this—facilitate the harnessing of data that can be aggregated and read together.⁴ Indeed, connected sensors, satellite images, and widespread smartphones produce massive amounts of data that facilitate better mapping by remote sensing, gathering environmental and other city-related data, and citizen behavior data.

Analyzed together, this information can be used to increase the efficiency of all sorts of local services, ranging from utility provision (like smart electricity and water grids), to planning and operating public transportation, managing traffic in real time, dealing with air pollution, monitoring a city’s security, and even fostering local entrepreneurship and business, as this data is shared with private parties who might use it too, to start their own business and/or provide additional local services.⁵ Consequently, the potential of smart-city technologies expands to all sorts of fields related to urban life, and connectivity allows for greater citizen engagement and use of information to engage more actively with the city and the city government. As a report by McKinsey Global Institute puts it, “Smart technologies can help cities meet these challenges [infrastructure, environmental and delivering a better quality of life], and they are already enabling the next wave of public investment. It all starts with data. Cities, in all their complexity and scope, generate oceans of it. Finding the insights in all that data helps municipal governments respond to fluid situations,

allocate resources wisely, and plan for the future. Furthermore, putting real-time information into the hands of individuals and companies empowers them to make better decisions and play a more active role in shaping the city’s overall performance. As cities get smarter, they become more livable and more responsive—and today we are seeing only a glimpse of what technology could eventually do in the urban environment.”⁶

Though Latin American cities still lag behind in some of the aspects that power smart-city technologies, particularly in installing a sensor layer, they have started implementing these technologies already, oftentimes with good results.⁷ Initiatives like free WiFi, smart electric grids, smart water resources management, bike-sharing systems, and so on are spreading in the region.⁸ Santiago, Chile leads most international rankings as the city that has made the most progress in this direction,⁹ but other cities like São Paulo, Buenos Aires, Bogotá, Medellín, Río de Janeiro, and México City follow closely. They have all started developing a technological basis of sensors, communication infrastructure, and open data portals, and they are deploying smart-city applications in realms such as mobility, security, utilities, health-care, and economic development.¹⁰ Cities in the region have also created “smart” complexes, to promote urban renovation and local entrepreneurship, like Ciudad Creativa Digital in Guadalajara, Ruta N in Medellín, the Parque Tecnológico City Tech in Manizales, and the IBM Control Center in Rio de Janeiro.¹¹ Also, alongside national policies in over 20 Latin American countries, Medellín, Bogotá, São Paulo, Rio de Janeiro, Buenos Aires, and many other cities have open-data portals that promote citizen engagement, local entrepreneurship, and transparency.¹²

The private sector and public-private partnerships are key in these developments. As the local startup and innovation environment flourishes, local players like

Rappi, Easy Taxi, Jetty, and Supercívicos are offering urban services and changing the way people live in cities. Quipux, for example, is a Colombian company that provides technology solutions for over 50 cities, most in Colombia and Brazil, to improve public transportation by collecting data on private and public vehicles, drivers, and public transportation routes.¹³ Supercívicos is a Mexican startup that won a prize as the best “urban government app” in the World Summit Awards in 2018. It allows citizens to report problems in infrastructure and utility provision.¹⁴ Bogotá has begun contracting, and Medellín and São Paulo have started implementing, systems of “intelligent street-lights” that regulate lights according to the flux of traffic and the pace of pedestrians.¹⁵ In the security realm, since 2016 Bogotá has implemented a security data-based strategy that allowed it to identify that 30 percent of crimes took place on 1 percent of the city streets, and then used that information to carry out police interventions on those sites, significantly reducing property crimes like robbery.¹⁶ São Paulo, too, has a crime-monitoring system developed by Microsoft and New York City that improves crime investigation, prevention, and patrolling by indexing large amounts of police information.¹⁷

In the mobility sector, traffic navigation apps, ride-hailing services, taxi-calling apps, public transportation information apps, bike- and scooter-sharing platforms, and even applications that tell users where to park are all widespread in the region’s main cities.¹⁸ Mexico is Uber’s second-largest market after the US, and Latin America is the largest, fastest-growing and most profitable region for the ride-sharing giant.¹⁹

Additionally, as connectivity and smart-phone use increases, the potential for these and future businesses and also government-led applications grow: Latin America is not only the most urbanized region in the world, but the world’s second-fastest-growing mobile market in the

world. It has around 200 million smart-phone users (out of 640 million people), and it is the region with the second-largest social media presence after North America.²⁰ Predictions state that by 2020, 63 percent of the population in the region will have access to mobile internet.²¹ National governments are making important efforts to increase internet connectivity in the region via broadband and cable.²² Consequently, there is great potential in the region for using these technologies to tackle the many challenges that come with our urban present and future.

3. RISKS AND CHALLENGES THAT SMART-CITY TECHNOLOGIES POSE FOR LATIN AMERICAN CITIES

As previously mentioned, data-gathering and algorithmic analytics are at the core of all smart-city technologies. The literature and international experience suggest, however, that there are several important challenges with these data-driven solutions of which local and national governments should be aware. Here, I focus on the social impacts that the adoption of algorithmic decision-making can have, especially on some of the most vulnerable communities.²³ Particularly, I focus on the undesired harms that the implementation of algorithms may generate, which might be aggravated if they are seen as neutral tools that can solve problems, and on the privacy risks of citizens that the vast amounts of data collection entail.

The challenge of the unjustified harms created by algorithms has been widely documented in other contexts, and it refers to the fact that although these tools often improve the provision of services and officials’ decision-making processes, they can also unjustifiably harm individuals when implemented. In the US, for example, the use of decision-support software in judicial decisions “uncovered evidence of racial bias, finding that when the effect of race, age and gender was isolated from criminal recidivism risk, ‘black defendants were

77 percent more likely to be pegged as at higher risk of committing a future crime and 45 percent more likely to commit a future crime of any kind.”²⁴ The same is true in other fields. In the banking sector, low-income students did not receive student loans because they were considered too risky based on the place they live, limiting their access to education and opportunity.²⁵ Some of these mistakes are based on the fact that a substantial portion of human-made decisions that the datasets used as input might have been biased and prejudiced, and consequently inaccurate in the best scenario. The algorithms’ outcomes were similarly inaccurate (though sometimes to a lesser degree).

These types of results are problematic and relevant in the city context too, and especially in fields that have significant social impact, such as urban security (e.g. where policemen are assigned, and who gets arrested). Research in Colombia has shown, for example, that police inspections are more common in low-income neighborhoods and among low-income persons and, unsurprisingly, arrests are more common in these populations.²⁶ However, statistics also show that domestic violence is equally common in rich and poor households, and that drugs are sold and consumed among youth from all social backgrounds.²⁷ Because algorithms that help policing activities often take information about former arrests and crimes to tell police officers where crimes are likely to occur in the future, the algorithms may end up reinforcing existing prejudices, such as that low-income people are more likely to be violent and consume or sell drugs. They could also maintain the individual and social harms that follow from putting youth from poorer backgrounds through the criminal justice system, in a disproportionate and unfair way.²⁸

Policymakers and government officials adopting smart technologies should thus pay close attention to the potential social effects of the decisions made and recommended by these systems. Algorithms can

be taught to correct biases, but for this to work they must be programmed to do so. Local governments and tech companies must thus be careful about the impacts of these technologies and evaluate them constantly.

Indeed, the implementation of these systems is not done in the abstract, but rather within the structure of local legal and social structures. Thus, they will not solve complex urban issues by themselves, and governments should be careful not to divert attention and resources away from important sectors and non-tech-driven policies to technological tools, with the hope that adopting technologies will be a quick fix for social issues. For example, focusing exclusively on crime detection and deterrence should not stop policymakers from implementing broader measures that prevent crime in the first place, which can be as far-reaching as providing education and spaces for extra-curricular activities for especially at-risk youth.²⁹ In a similar way, solutions that seek to improve mobility by coordinating traffic might mean little if the public is not educated to use more public transportation. The point is that technology alone does not provide neutral and optimal solutions to social problems, and that technology alone is not a primary mechanism of social change.³⁰

Technologies are in fact shaped by the social and economic contexts in which they are developed, and then they become a way of settling an issue in a particular community, like the bias in policing example above shows.³¹ Regarding the context in which the technologies are designed, the point is that the engineers and companies that design algorithms, though well-intended, may have different worldviews of what a particular community needs and values than the community itself. Additionally, the interests and incentives of these companies and designers matter too. These interests, worldviews, and incentives, however, influence the final technology, and they are increasingly relevant from a policy

and legal perspective when these technologies have important social consequences.

To counter-balance these risks, the implementation of these technologies should be accompanied by careful analysis of the type of data that is being used to “teach” the algorithms, and careful analysis of the results and decisions proposed by the algorithms, for which community engagement might be key. Making available clear explanations of what the algorithms do with this information might be key to ensure some democratic accountability³² (to the extent that it is technically possible).³³ Some have suggested that the fairness and eventual usefulness of a given technology should be evaluated with counterfactual analysis of the effects that the design, implementation, and use has on the well-being of individuals.³⁴ The algorithm’s decision-suggestion should also be controlled in several ways: for example, taking into account constitutional standards of non-discrimination and human rights, and encouraging community engagement to ensure that the implementation of these technologies responds to local issues, and in ways that are meaningful to the communities themselves. This might help guarantee that the implementation of those decisions don’t harm already vulnerable communities in disproportionate and unfair ways.

Finally, the vast amounts of data collected by smart-city technologies suggest that there is risk to citizens’ privacy, as both local governments and commercial actors may end up having access to vast amounts of citizens’ personal data. Additionally, in the context of smart-city technologies that collect personal data in public spaces, the typical way to protect citizens’ privacy—to ask for consent—is useless.

There are some strategies from the field of systems engineering that aim at tackling this problem, and that should be included in the contracts that local governments sign with smart-city technology providers. An example of a strategy to

tackle this risk is that privacy be taken into account throughout the design process of these applications, so that the devices are designed to not collect, or collect less, sensitive and personal data—what has been called privacy by design. The new European regulation on data protection has incorporated privacy by design in its mandates.³⁵ However, it is unclear how useful these mechanisms are in big-data contexts, in which the size of the database may reflect personal information about a particular individual even when that particular information was not collected. Differential privacy is another strategy, in which random data is incorporated into the data sets used so that an observer (a government or company, for example) may not recognize particular individuals, without significantly damaging the value of the data to make policy decisions.³⁶ From a policy perspective, protocols and laws that protect citizens from the uses of this type of data in ways that might be harmful to them must be passed and strictly enforced.

4. CONCLUSION

Smart-city technologies are valuable tools to drive social change and development, and to address many of the social and policy challenges of providing local services in growing cities. Their implementation, however, is still associated with certain risks, and poses questions of equality and social justice. As they are implemented in Latin American cities, national and local governments, as well as the private sector, should be aware of them to be ready to address them. This paper has been a first attempt to map some of the main risks that they represent, so that they can be prevented when these technologies are implemented.

NOTES

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³According to Christos Cassandras, “The emerging prototype for a Smart City is one of an urban environment with a new generation of innovative services for transportation, energy distribution, healthcare, environmental monitoring, business, commerce, emergency response, and social activities ... the ultimate value of a Smart City’s infrastructure lies in ‘closing the loop’ that consists of sensing, communicating, decision making, and actuating—rather than simply collecting and sharing data.” Christos G. Cassandras, “Smart Cities as Cyber-Physical Social Systems,” *Engineering* 2, no. 2 (June 2016): 156.

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“Still Not There”: Low Female Labor Participation and Culture in Chile

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ABSTRACT

Over the last 30 years the male/female labor participation gap in Chile has been consistently narrowing, but the rate has decelerated in the last five years and there is still much to understand about what can be done to further minimize the gender gap. Cultural factors such as beliefs, preferences, and social norms seem to explain part of this gap, especially in the case of married and low-educated women. Therefore, designing policy interventions to address those beliefs can have a positive impact on women's individual decisions to work and the consequent female labor participation rate. At the same time, this rate can also influence beliefs and social norms and act as a self-fulfilling prophecy.

INTRODUCTION

Gender equality is today at the top of the international agenda, as in the past decades we have seen the emergence of diverse social movements advocating for the expansion of women's rights in issues such as education, labor, violence, politics, etc. This year, the gender perspective is a cross-priority to the G20 agenda, with the goal of guaranteeing labor, digital, and financial inclusion to every woman.¹

Although in terms of labor participation the gender gap is highly significant in almost every country, Chile stands out as a middle-income country, with a strong path of development and constantly growing income for its low female labor participation rate (FLPR). In 2017, the FLPR in Chile was 57 percent, relatively low compared to the average of 63 percent in OECD countries.² The problem is more evident when comparing Chile to other countries of the region with

similar GDP per capita: despite a strong advantage in terms of education, the Chilean FLPR is behind benchmark countries such as Peru, Bolivia, and Brazil (see Figure 1).³

FEMALE LABOR PARTICIPATION IN CHILE

Fostering opportunities to include women in the labor force has potential positive economic effects on aggregate productivity⁴ and in reducing poverty and inequality.⁵ Additionally, it improves women's multidimensional welfare⁶ and has positive externalities on personal and children's health,⁷ among others.

Over the last 30 years, the male/female labor gap in Chile has been consistently narrowing, driven both by supply and demand factors, especially in the case of married women (see Figure 2). The evidence suggests that education, age, and the number of children are important explanatory variables on the supply side,⁸ while a stable macroeconomic framework and bold structural reforms, such as trade liberalization and buoyant natural-resource sectors, have fostered the demand for labor.⁹

During the last decade, the Chilean government has made several efforts towards a more equitable society by tackling the gender labor gap through several programs such as universal childcare provision, equitable private health insurance schemes, flexible work schedules, and the right to equal wages between women and men. These decisions were taken in a context of high public awareness of the need for state intervention to promote women's development and inclusion.

However, FLPR growth has decelerated in the last five years, and there is still much to understand about the factors affecting the remaining gap—mostly driven by the low level of participation of married women with low education—and what can be done to further minimize it. This

research project will seek to address the importance of cultural factors in explaining the remaining gender gap.

DETERMINANTS OF FEMALE LABOR PARTICIPATION

There are several factors affecting the FLPR, which can be grouped into four non-exclusive categories: demographics, barriers to entry in the labor market, social and human capital, and cultural factors.

Within the literature that explains how the labor supply decisions of women are made, some of the most-discussed contributors are the ones related to demographic factors such as age, year, generation/cohort effects, marital status, and having children. There is substantial evidence showing that the number of children a woman has is negatively correlated to her decision to participate in the labor force.¹⁰ It is also one of the main contributors to the lower amounts of job experience, greater career discontinuity, and shorter work hours for females, even for those holding graduate degrees.¹¹ The particularities of women that make them prone to work fewer hours and in a less continuous pattern is a clear disadvantage, in a market where most firms disproportionately reward individuals who work long hours.¹² On social and human capital factors, there is evidence that education is important to determine female labor participation,¹³ whereas on-the-job training only plays a small role.¹⁴

All these “barriers to entry” are especially relevant in the context of Chile, where the evolution of legislation focused on gender issues has been slow and tended to create the wrong incentives. In the case of childcare provision, for example, the law requires firms that employ more than 20 women to provide free childcare, creating a big bunching effect as most small and medium firms give full-time employment opportunities to only 19 women. In the case of maternity laws, although Chile guarantees 18 weeks of maternity leave,

substantially higher than the 12 weeks recommended by the International Labour Organization, some studies have shown that gender-neutral family policies might generate more equal opportunities for women in the workplace.¹⁵

THE INCIDENCE OF CULTURAL FACTORS IN WOMEN'S BEHAVIOR

Historically, most of the evidence related to women's choices in labor markets was based on mainstream economic models.¹⁶ However, recent papers emphasize how cultural factors (preferences, beliefs, and social norms) contribute to the evolution of the gender gap and how they might play a significant role toward a broader understanding of gender aspects, particularly in Chile.¹⁷

Kuziemko et al. (2018) shows that there appears to be a significant and unanticipated change in preferences in a woman who works after having a child (what they call the "Mommy effect").¹⁸ Complementarily, Bordalo et al. (2016) shows how women's biased beliefs about their own abilities contribute to differences in financial decision-making, academic performance, and career choices.¹⁹

The papers of Burzтын et al. (2018) and Pande et al. (2015) are informative on "others' beliefs," by showing how husbands' beliefs can have long-term effects on their wives' decisions.²⁰ According to Bernhardt et al. (2018), the impact of social norms on individual work behavior is likely mediated by intra-household dynamics. Therefore, characterizing how norms and beliefs vary across genders and within households can lead us to better understand how women's labor market choices are made.²¹

Additionally, Alesina et al. (2013) finds that social norms about the appropriate role of women in society regarding the historic division of labor between men and woman can have long, persistent effects.²² In a similar line, Fernandez (2007)

and Olivetti et al. (2004) show that social norms on being a "working mother," with less traditional views about the role of women, can have an important impact on their daughters.²³ More optimistic evidence shows how discussing gender roles at a "moldable but mature enough age" such as adolescence can lead to changes in beliefs and further change the predominant social performance.²⁴

These new perspectives on gender, which account for the influences of psychology and social psychology, can provide micro-foundations for why women may choose different professional paths than men.²⁵ However, little is known about what factors might lead long-standing social norms to change, or even more so, to change quickly.²⁶

CULTURAL FACTORS IN CHILE

Considering the limitations of current literature and data about this issue in Chile, a specific survey was designed and then carried out in Santiago, Chile to analyze how cultural factors affect women's decisions to work. In particular, the study tried to understand at what level women's beliefs about their own abilities and the economic returns to labor were accurate, and at the same time, how biased were their beliefs about the role of women in society and how others perceive working women.

We assume that those beliefs, coupled with individual preferences, interact and determine the decision of a woman to work, and that aggregates to a final equilibrium on the FLPR. The FLPR will in turn influence the perceived social norm regarding female labor participation, and work as a self-fulfilling prophecy in which beliefs affect actions, which again reinforces beliefs driving a suboptimal equilibrium for females.

Preliminary results show that while overall, women in Santiago do not seem to have sexist beliefs, certain groups of

women, including those who are married, have low education, or who didn't have a working mother, seem to have more sexist responses. Married women, as well as women who have children, tend to agree more with statements that having higher earnings than their husbands could be a problem, which could be limiting their desire to pursue an ambitious professional career. Secondly, women with children or low education tend to agree more with statements that indicate that men are more capable than women, such as "men are better business executives." Finally, women whose mothers work during their childhood tend to consider that work and family balance is harder, and that being a housewife is as fulfilling as working for pay (see Figure 3).

During the survey, we ran a small experiment by randomly showing a motivational video about working women who have successful careers and a family to a subset of the sample. The results are striking, as they show how a piece of information and motivation can improve women's perception of the success of other women in their communities, and in making women more prone to agree on the possibility of balancing work and family life. On the other side, showing them information about the economic returns to labor has a positive effect in updating their wage estimations by making them higher.

Finally, the survey shows women's interest in more information regarding job opportunities, as well as more government intervention to achieve gender equality in the labor market.

POLICY ALTERNATIVES

Given that cultural factors play an important role in women's labor supply decisions in Chile, changing or updating the beliefs of those women who are indifferent between working or not ("marginal women") could impact their actions, leading to changes in

social norms and finally to movements in the FLPR.

In this sense, some cultural factors are going to be "easier" to change than others, and will therefore have different policy implications. In this line, beliefs on the economic returns to labor could be easily updated by showing people statistical information. However, beliefs on the role of women in society, as well as women's preferences, are less malleable in the short run and may require interventions with results only observable in the long term. The former is reflected in the need to balance work and family life, or their professional success, when compared to men.

Taking into account that women's beliefs about their own abilities and their role in society are important constraints to female labor supply, we identified two possible concrete policy actions: (1) an informational campaign to foster the belief updating process, and (2) a change in the secondary education curriculum to incorporate gender equality discussions and re-shape the beliefs about women's professional opportunities.

The informational campaign would help to raise awareness about the most relevant beliefs affecting women's desire to participate in the labor market by providing insights about women's economic returns to labor, their capabilities, and how to manage a family-work balance. By changing women's beliefs, it will be possible to disrupt their behavior and individual actions, therefore reshaping existing social norms and practices, leading to a change in the general equilibrium for female labor participation and a shift in culture.

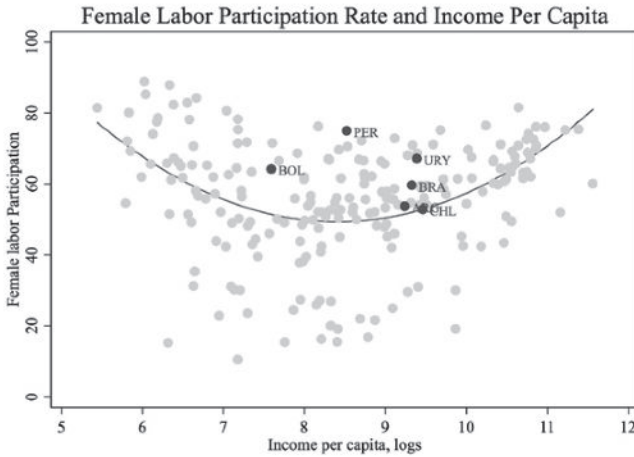
On the other hand, incorporating gender equality discussions into the secondary school curriculum of the country's public and voucher schools aims to articulate and strengthen the current educational framework by including discussion on

topics such as gender stereotypes, gender roles at home, women’s employment outside the home, and harassment. Secondary school students are in a “critical time” of life in terms of the development of core values and the formation of moral criteria: they are young enough to have malleable beliefs, but mature enough to understand them, and have enough experience to be able to reflect on issues.²⁷ As with the informational campaign, by changing young boys’ and girls’ beliefs, it will be possible to transform their behavior, also leading

to changes in social norms and therefore impacting the FLPR.

Although both options are aligned with the current political agenda, the first option is highly cost-effective, making it an appealing option for the government to pursue, while the second one requires the involvement and support of several actors within the public sector as well as external stakeholders (including teaching staff, parents, and children) to enhance its effectiveness. Both policies complement each other

Figure 1. Female Labor Participation and GDP, Chile and Others



Source: World Development Indicators, World Bank, 2017

Figure 2. The Evolution of Labor Force Participation in Santiago, Chile



Note: Own elaboration using Employment Survey of Santiago.

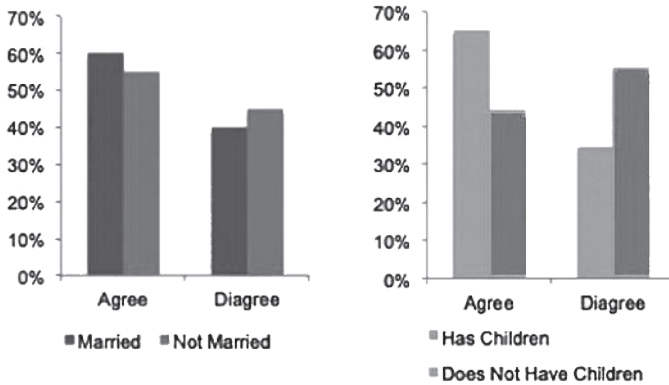
Source: Unemployment Survey, Santiago, Centro de Microdatos, Universidad de Chile.

in terms of the cultural factor that they address. The informational campaign aims to bring consciousness to the different beliefs that influence women's decisions and motivates them to rethink and update them, while school discussions have a much deeper impact on children by shaping the beliefs about the role of women in society in a critical period of life.

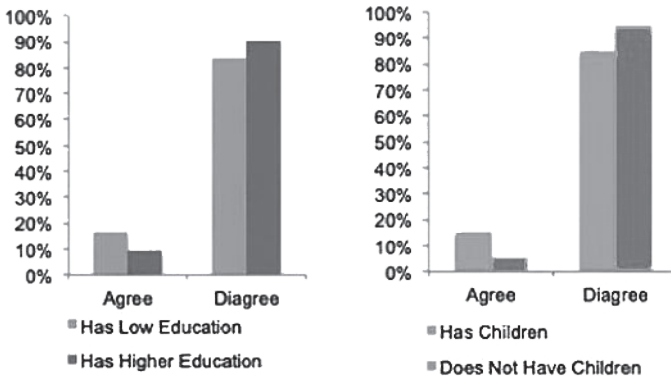
Changing beliefs is not an easy task, but changing individuals' decisions is even harder. This study has shown that simply showing information on economic returns and motivating women

to join the labor force could have an impact on both, beliefs and actions. At an aggregate level this change in actions could generate a change in the final FLPR, and therefore influence the adjustment of social norms to motivate more women to join the labor force. Given these findings, it seems that the current government interventions are not enough to close the remaining gap, and efforts should be redirected to providing women with information and motivation to work, as well as designing incentives for the demand side to adjust labor conditions to women's needs.

Figure 3. Women's Beliefs
Women earning more than their husband is a problem



Men are better business executives than women



Source: Own Survey, Santiago, Chile, 2019.

NOTES

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Regional Opportunities: Identifying Promising Local Industries to Improve Argentina's Economic Complexity

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INTRODUCTION: THE POLICY CONTEXT

This research document applies the Economic Complexity framework, developed by Hausmann and Hidalgo,¹ to identify key sectors that would further the economic sophistication of Argentina's geographic regions. In addition, we complement the standard Economic Complexity framework by also considering the likelihood that these activities will develop into competitive industries.

Argentina's competitiveness has traditionally been concentrated within a few primary goods. This primarized export basket, composed mostly of agricultural and mining commodities, lies at the heart of the country's economic volatility and procyclicality.

While there have been attempts to break free of this commodity dependence, none of them have been successful. Traditional industrial policy in Argentina ran into the same import substitution limitations and foreign currency shortages that brought an end to other, similar experiments in the region.

Argentina is currently transitioning away from protectionism and opening up to trade and foreign investment. Since 2015, the government has signaled a political desire to move towards openness, global integration, and fiscal consolidation, with significant advances being made in terms of removing energy price distortions, returning to capital markets, and unifying the exchange rate.

There is a growing need to detect new areas of competitiveness where Argentina can reallocate the many workers who will be displaced by the government's move towards trade liberalization. Indeed, as import restrictions are relaxed, some of the most sizable economic activities in terms of employment—especially textiles and shoemaking—will be unable to compete with imports from countries with a strong comparative advantage in those industries, such as Bangladesh and Vietnam.

Although the competitive agricultural sector is growing quickly thanks to the removal of export duties since 2015, government officials are aware of the potential

danger of an overreliance on agricultural goods, especially in a context of lower commodity prices, decelerating demand in China, and rising interest rates in the United States.

This research document, then, sets out to discover which industries and sectors have the potential to develop competitively and bolster Argentina's economic sophistication. It is structured as follows:

- Section 1 provides a (very) brief explanation of the country's export primarization.
- Section 2 explains why diversifying into more complex activities could become an important contributor to economic growth.
- Section 3 provides a regional snapshot of Argentina's economic complexity, detailing its regional differences and the challenges faced by firms in different geographic locations.
- Section 4 features a short description of our methodology, explaining how each activity's degree of sophistication and potential competitiveness puts it higher or lower on the list of opportunities.
- Section 5 presents our results: we identify several key activities with relatively high economic complexity and diversification potential, for each of Argentina's geographic regions.
- Section 6 concludes and provides some ideas as to how governments should (and should not) foster these economic opportunities.

1. A SNAPSHOT OF ARGENTINA'S PRIMARIZED EXPORT BASKET

Argentine comparative advantage has traditionally been associated with agricultural and mining commodities. In 1990, 52.6 percent of exports were composed of natural resources (excluding energy); in 2000, this share was 40 percent, and by 2007 it was back to 54.5 percent.²

The country's sales to the world have also been historically concentrated on a

handful of goods. Half of exports in 1993 were composed of just 12 products (soya oil cake, wheat, petroleum oil, leather, and others). In 2000, 12 products continued to provide one out of every two dollars of Argentine exports—and most of them were the same goods as in the 1990s, with the exception of the rise of the automotive industry.³

During the 21st century, this trend has become even more pronounced: By 2016, 54.5 percent of Argentine exports originated in the natural resources sector, and the total number of goods composing 50 percent of the export basket had fallen to just 10, with soya oil cake, maize, and soya bean oil topping the list. The Asia-driven commodity boom of the early 2000s, and its associated shifts in terms of trade, was a significant contributor to the intensification of export concentration.⁴

Countries whose production is concentrated in relatively few, unsophisticated goods tend to display lower incomes per capita. The absence of elaborate productive networks, which are essential to know-how diffusion and the exploration of new areas of entrepreneurial activity, weighs down on economic growth.⁵

2. THE BENEFITS OF DIVERSIFYING INTO COMPLEX INDUSTRIES

Developing the capabilities needed for diversification into new industries increases a country's productive potential, paving the way for the development of more complex, unique products. Any given good process requires a certain set of capabilities to be produced. Hausmann and Hidalgo (2010) have shown that the production of most products requires the combination of a large number of different technical capabilities, and, hence, that the returns to the accumulation of new capabilities is exponential.⁶ Furthermore, because only a few countries have the necessary requirements to engage in the most sophisticated industries, complex

goods and services are provided only by relatively few global players. Complexity allows nations to move into less competitive, more profitable markets.

Diversifying into complex goods can boost economic growth. Recent research has shown that what a country chooses to export has an impact on its development in the future: certain goods have higher associated productivity levels than others, which suggests that the choice of a pattern of specialization can be an important determinant of a country's growth path.⁷

In the case of Argentina, diversifying away from agricultural commodities and into more complex industries is a priority. Some of the goods that are most strongly associated with low-income patterns of specialization, such as vegetable products, cloves, and live mules, are worryingly in line with the Argentine export structure.

In addition, export diversification can mitigate output volatility arising from trade openness. The new Argentine government has decided to pursue a much more outward-oriented growth strategy than its predecessor. While global integration carries obvious benefits—such as access to frontier technology and high-quality intermediate inputs—it also may expose the adopting country to exogenous shocks, hence increasing output volatility. Export diversification can act as an alleviating force to reduce this volatility (just as portfolio diversification can lower risk exposure when two assets are imperfectly correlated).⁸

More specifically, diversification can lower the extent to which a country's terms of trade are subjected to upward and downward swings. This is especially important for Argentina, given its agriculturally dependent, primarized export basket.

There exists a significant number of feasible goods into which Argentina could diversify. These are products whose requirements are close to the country's

current productive capabilities, have a significant level of economic complexity, and would open up the potential for the further development of other sophisticated goods.

3. ARGENTINA'S ECONOMIC COMPLEXITY IS LOW AND HETEROGENEOUS

Argentina's economic complexity is low, both by world frontier standards and given what would be expected for its GDP per capita. The country ranks 54th out of 123 countries as measured by the Economic Complexity Index. It stands behind Brazil, Mexico, and Spain—but its productive matrix is still more complex than that of Chile, Bolivia, Paraguay, and Venezuela.

“Economic complexity” refers to an economy's total accumulation of productive knowledge. More complex societies are able to produce more diverse and sophisticated goods. For example, the production of corn is relatively simple, which explains why so many countries can do it. In contrast, the creation of superconductors requires an elaborate network of inputs and know-how, which only a handful of nations have managed to develop.

Low economic complexity can be a drag on economic growth. The reason is that most basic industries are not conducive to the accumulation of know-how, due to their limited interconnectedness with other sectors, which in turn hinders diversification opportunities.

At the local level, Argentina's provinces have very different levels of economic complexity. Buenos Aires and the “Centro” region are relatively more advanced—approximately comparable to New Zealand and Egypt, respectively—while the northern and southern areas of the country lag significantly behind, with complexity levels closer to Bangladesh and Peru (see Figure 1).

A review of each region's most complex exports, from the set of goods that

they sell competitively in world markets, reveals that:

- Buenos Aires (both the province and the city) exports relatively more complex items such as polyamides, inorganic acid esters, photographic plates and film, lubricating preparations, mechanical appliances, and enzymes.
- The Centro (Córdoba, Santa Fe, and Entre Ríos) also displays relatively more sophisticated production, with competitive complex exports including piston engines, rolling machines, prepared cultures, enzymes, vehicle parts, plant and laboratory equipment, and synthetic rubber.
- Nuevo Cuyo (La Rioja, Mendoza, San Juan, and San Luis) is quite heterogeneous, mainly due to the differences between the more sophisticated San Luis and the less developed La Rioja. Some of the region's main complex export goods are compound

stabilizers for rubber and plastics, metal sheeting joints (i.e. gaskets), pumps for liquids, refractory cements, and concretes.

- The NOA (Catamarca, Jujuy, Salta, Santiago del Estero, and Tucumán) displays a somewhat lower level of complexity, with key exports comprised of vehicle parts, chlorides, glycerol and general machinery parts, but also mineral materials, paper, and malt extract.
- Patagonia (Chubut, La Pampa, Neuquén, Río Negro, Tierra del Fuego, and Santa Cruz) lags behind, with key complex exports including bird skins and feathers, aluminum articles, lupulin, fermented beverages, glycerol, meat, organic solvents, and, uniquely, satellites (only in Río Negro).
- The NEA (Chaco, Corrientes, Formosa, and Misiones) also displays a low overall level of economic complexity. Its most sophisticated sales to the world include heterocyclic compounds, gas generators, paper, cellulose fibers, and wood panels.

Figure 1: Economic Complexity Index, by Province



Note: The ECI ranges from -2 (Nigeria) to 2.5 (Japan).

Source: Authors' calculations, based on CID (2018) and Ministry of Production of Argentina (2018).¹⁰

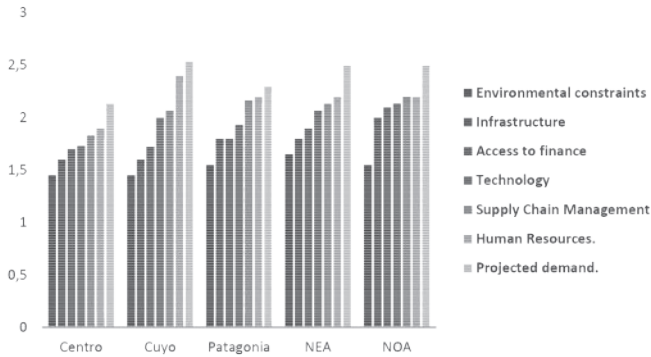
Language is important here: we are listing the most economically complex goods that each region exports competitively. By “competitively” we mean items that a region sells in higher proportion than the rest of the world.

Many of the structural constraints to productive development appear to be similar across geographic regions. Recent research from CEPAL concluded that Argentina's various regions share similar priorities in terms of which constraints need to be overcome to foster private activity (see Figure 2, below).¹¹

In particular, seven categories of constraints to production were evaluated: environmental concerns, infrastructure, access to finance, technology, supply chain management, human resources, and projected demand. These were indexed on a scale from zero (no relevance) to 3 (maximum priority).

The incidence level for constraint categories is similar across regions, which

Figure 2: Constraints to Productive Development, by Region



Note: CEPAL includes La Pampa in the Centro region, rather than Patagonia as we do.

Source: Authors' aggregation based on data and results from CEPAL (2017).¹²

suggests that industry-specific challenges are more important in explaining Argentina's complexity heterogeneity than region-specific limitations. While projected demand (international, regional, and national), the availability of human resources, and supply chain management knowledge are consistently identified as key issues, most regions share similar problems.

4. IDENTIFYING THE MOST PROMISING ACTIVITIES FOR DIVERSIFICATION

Accomplishing the structural transformation needed to diversify Argentine exports into more complex sectors requires active policy decisions on two fronts: first, deciding which activities to foster, and second, establishing policies to facilitate Argentine competitiveness in these priority sectors. This section briefly summarizes the Hausmann-Hidalgo methodology for choosing which activities to diversify into, while Sections 5 and 6 provide results and policy recommendations for the Argentine case.

The choice of which economic activities to promote depends on three key factors:

1. The probability of successfully developing that activity given the country's current

capabilities. This is calculated by observing similar countries' experiences with the good in question, and identifying how many of them managed to become competitive exporters of the good in the past.

2. The estimated nationwide economic complexity gain associated with expanding that specific activity: in a nutshell, determining whether the good in question is economically complex or not, and whether it is associated with the productive capabilities of high-income countries or low-income countries.

3. The number and types of other goods that become easier to produce if the given activity is successfully developed. In other words, how many productive "doors" would be opened by expanding this possible activity.

The cornerstone of this document's research strategy is the Product Space framework, as introduced by Hausmann, Hidalgo et al. (2014).¹³ The Product Space is a tool that quantifies the relationships in production between different goods, providing an assessment of how likely it is that countries with certain industries might successfully expand to similar, neighboring activities. Based on this framework, it is possible to calculate, first, what Argentina's current productive capacity is, and second, the activities that, if developed,

would provide the country with a higher complexity gain. In turn, the desirability of developing these industries should be assessed by considering the probability that the country will be able to develop them successfully.

Figure 3, below, summarizes this methodology. The first criterion is represented by the probability of diversifying into an industry, and the second and third criteria are represented by the box labeled Opportunity Gain.

SECTION 5. REGIONAL ACTIVITIES WITH HIGH DIVERSIFICATION POTENTIAL

This section presents those goods and sectors that hold the highest potential gains for Argentina’s development. Using the Product Space methodology described in the previous section, key activities are prioritized according to which would contribute the most to the national capability set, expanding the potential for diversifying into higher productivity activities, if the country were to turn them into competitive industries.

The top activities with higher diversification potential are mostly bundled within sectors such as chemical products, agricultural machinery, lubricating preparations, medical instruments, mineral wools, and animal farming. This is unsurprising, as successful diversification requires that countries move from one established

competitive activity to another that uses similar factor inputs.

Goods and sectors with high potential are identified at the regional level: that is, promising industries are defined depending on whether they would enhance their own regions’ economic complexity—for example, agricultural machinery in the NOA (North East of Argentina) region. The way to select these activities depends on the current productive capacities of these province groups, which, as has been stated, is significantly heterogeneous.

Ten promising activities are identified for each region. In total, they comprise 29 different sectors. An important caveat is that these results should not be interpreted to mean that Argentina’s development efforts should be focused narrowly on these specific goods alone—rather, these findings highlight entire subsectors that may be of strategic importance. For example, forklift trucks are identified as a sizable opportunity for complexity gains, but similar equipment-handling machinery may also be viable and should not be brushed aside as irrelevant.

6. CONCLUDING REMARKS

The presented results suggest that diversifying into selected regional industries may boost Argentina’s economic complexity.

Figure 3: Production Selection Methodology

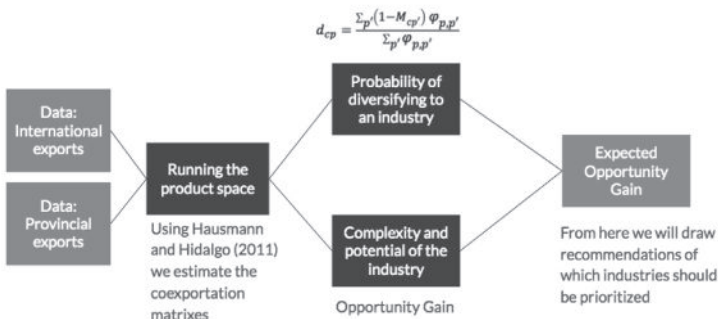


Table 1: Top three activities by region

Activity	Sector
NEA (Chaco, Corrientes, Formosa, and Misiones)	
Chocolate and cocoa foods.	Cocoa.
Aluminum structures and parts of structures (i.e. bridge-sections, roofs, roofing frameworks, doors and windows and their frames).	Aluminium.
Parts for trailers and semi-trailers (not mechanically propelled).	Vehicle parts.
NOA (Catamarca, Jujuy, Salta, Santiago del Estero, and Tucumán)	
Harvesting/threshing machinery, and machines for handling agricultural produce.	Agricultural machinery.
Medicaments for therapeutic or prophylactic uses (i.e., antibiotics, penicillin, hormones, alkaloids).	Pharmaceutical products.
Paints and varnishes.	Tanning extracts, dyes, paints, putty, and other coloring mastics.
Nuevo Cuyo (La Rioja, Mendoza, San Juan, and San Luis)	
Piston engines.	Piston engines.
Lubricating preparations (i.e. cutting-oil, anti-rust, anti-corrosion, mould release preparations).	Lubricating, polishing, or scouring preparations.
Air pumps, vacuum pumps, and air/gas compressors.	Air pumps and air compressors.
Patagonia (Chubut, La Pampa, Neuquén, Rio Negro, Santa Cruz, Tierra del Fuego)	
Chocolate and cocoa foods.	Cocoa.
Vulcanized rubber conveyor and transmission belts.	Rubber.
Plastic plates, sheets, film, foil, and strip.	Plastics.
Centro (Córdoba, Entre Ríos, and Santa Fe)	
Laboratory reagents.	Chemical products.
Chemical products related to binders for foundry moulds or cores.	Chemical products.
Gaskets and similar joints of metal sheeting and mechanical seals.	Parts for industrial machinery and equipment.

Source: Own calculations, based on data from Center for International Development (2018) and the Ministry of Production of Argentina (2018).

This does not mean that the government should engage in traditional industrial policy by granting fiscal privileges to these strategic activities, as has been done in the past. Traditional forms of export-promotion industrial policy consisted of “picking winners”—usually in the manufacturing industries—which were granted financial incentives and competition protection in order to help them expand.

The right policies to promote complex diversification are those that identify and solve the domestic constraints that are holding back the development of local activities. A helpful starting point for policymakers may be to ask: “Why hasn’t the private sector expanded to these industries already?” The government would then provide assistance by jointly identifying missing inputs that the private sector may not be able to efficiently provide,

in a context of, for example, coordination failures.

To identify and overcome the domestic constraints to these activities, the government needs to engage in a discovery exercise with representatives from these activities’ producers. Whether the problem is inadequate access to finance, excessive regulation, or the absence of necessary human capital, governments should establish forms of communication with producers from these key economic activities, in order to pinpoint the most immediate areas for reform.

NOTES

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⁷Ricardo Hausmann et al., "What You Export Matters," Kennedy School of Government Working Paper no. RWP05-063, October 2006.

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¹¹Comisión Económica para América Latina y el Caribe (CEPAL), *Territorio, infraestructura y economía en la Argentina: Restricciones al crecimiento de distintos complejos productivos* (Santiago, Chile: United Nations, 2017).

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The Venezuelan Exodus in Peru: A First Approximation

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ABSTRACT

Venezuela is facing one of the biggest economic collapses in modern history, forcing more than 10 percent of Venezuelans out of their country. The crisis is far from over and even more emigration is expected in the following years. Since 2016, Peru has received around 800,000 Venezuelans because of its positive socioeconomic conditions and friendly migration regime. Most Venezuelans have settled in Lima (77 percent), becoming, in only two years, six percent of the capital's population, and turning it into the city with the most Venezuelan migrants in the world. The current situation is posing unprecedented challenges for the Peruvian government and society, which have yet to find an official coordinated response.

1. THE CHALLENGE POSED BY THE VENEZUELAN EXODUS

Venezuela is facing one of the biggest economic collapses in modern history, forcing more than 10 percent of Venezuelans to migrate out of their country. Since 2013, Venezuela has lost 49 percent of its real GDP per capita due to a generalized economic and political crisis, and is hitting new hyperinflation records every month. Similar losses are comparable nowadays with war zones like Yemen or South Sudan.¹ In the last four years, the minimum wage measured in affordable calories fell by 87 percent, and is currently insufficient to feed a family of five.² According to a national survey, 87 percent of Venezuelans were poor in 2017 (up from 48 percent in 2014), and 64 percent reported losing body weight.³ With a collapsed public health system, Venezuela is experiencing

outbreaks of long-eliminated diseases such as measles, malaria, and tuberculosis.⁴ With 87.5 percent of households depending on subsidized food handouts,⁵ and the deterioration of the balance of payments and the government finances, it can only be expected that in the absence of regime change Venezuela heads further into a humanitarian catastrophe in the next months.

Venezuela's economic disaster is rooted in the decision of Maduro's authoritarian government to remain in power at all costs. Although the country has not entirely abolished democratic institutions, their meaning and impact have become void after a sequence of power grabs and electoral redesigns. All checks and balances on the executive branch have disappeared through permanent repression

of the opposition, and the suppression of freedom of the press as well as freedom of association.⁶ Beyond the threat of political repression, Venezuelans face some of the world's highest crime rates, with the country being considered the second-most-dangerous country in the world, only behind El Salvador.⁷ The combination of economic and political unrest has mobilized millions of Venezuelans to leave their homes and families to seek a better future, mostly in nearby countries of the region.

The crisis in Venezuela is far from over and more emigration should be expected in the following years. According to a recent poll by Gallup, 40 percent of Venezuelans want to escape the country.⁸ Not only current economic conditions are harsh, but forecasts are far from optimistic. The IMF projects that real GDP will shrink 18 percent, and hyperinflation will soar to 10,000,000 percent by 2019.⁹ Increasing economic and political distress are likely to unleash new waves of migrants across the continent. A recent estimate predicts that the number of migrants could potentially reach 8.2 million in the coming years, based on Venezuela's foreign income (oil revenue and remittances), given the government's need to import food to assist a population in need.¹⁰ The International Organization for Migration (IOM) currently projects that the total number of migrants will increase by 40 percent during 2019.¹¹ These estimates are highly dependent on a variety of assumptions of migrant decisions and economic forecasts regarding Venezuela's future.

By the end of 2018, between 3.3 million and 5.5 million Venezuelans were living abroad, according to Facebook data.¹² The economic decline and political chaos precipitated the massive exit of Venezuelans—a great share of them traveling by foot since 2015. Conservative estimates by the IOM calculate the size of the Venezuelan exodus at 3.3 million people by the end of 2018, which will represent 10 percent of the country's total population. Nevertheless, social media data

can provide better real-time estimates on the magnitude and scope of the exodus. In recent years, products of search engine queries, email logins, and the use of social media have provided new pathways to understand demographic changes in societies, particularly those provoked by migration. In the case of social media, Facebook's advertising platforms,¹³ geo-located Twitter messages,¹⁴ and LinkedIn career histories¹⁵ have been used to understand different features of migration patterns. In the case of Venezuela, estimates of emigration have been produced using Facebook and Twitter data.¹⁶ Demographic data from Facebook users can be obtained through Facebook's advertising platform, "Facebook Ads Manager." This tool allows potential advertisers to select specific characteristics of their target audience. For this case, since 2015 Facebook has included the "Expat" group, constructed through a mix of self-reported information, logins, and user networks.¹⁷ To estimate the number of Venezuelan migrants, the 2011 Venezuelan Census projections for 2018 were used to estimate the size of the exodus, and the average differential in the Facebook penetration rate (that is, the number of users per population per age group and gender) was calibrated at 10 percentage points.¹⁸ Using Facebook data, we estimated the size of the global Venezuelan exodus at around 5.5 million (17 percent of the country's population).¹⁹ The majority of the diaspora resides in Colombia, the United States, and Peru (63 percent), with substantial communities also in Chile, Spain, Ecuador, Argentina, Mexico, Panama, and Brazil. The most inhabited city by Venezuelans outside of Venezuela is Lima, followed by Bogotá, Barranquilla, Buenos Aires, Quito, Medellín, and Panama City, in that order.

2. THE VENEZUELAN EXODUS IN PERU

Venezuelan migration to Peru had some antecedents in the pre-2015 period, but surged in 2016, only to escalate after 2017. Similar to other host countries, Peru had

Table 1 – The Venezuelan Exodus – Principal Host Countries

Country	Global	Peru	Colombia	US	Chile	Spain	Ecuador	Argentina	Brazil
Venezuelan Expats (Facebook Users)	4,225 K	636 K	1,541 K	440 K	313 K	267 K	256 K	148 K	85 K
Venezuelan Expats (Facebook Estimates)	5,593 K	752 K	2,085 K	674 K	382 K	376 K	318 K	170 K	108 K
IOM Estimate (Dec. 2018)	3,314 K (LAC)	698 K	1,529 K				278 K		
Asylum Seekers (Dec. 2018)	394 K	156 K	2 K	73 K	3 K	30 K	11 K	1 K	85 K
GDP per capita (US\$ 2017)		6,731 US\$	6,379 US\$	59,792 US\$	15,067 US\$	28,259 US\$	6,216 US\$	14,463 US\$	9,896 US\$
GDP Avg. Growth (2014-2017)		3.3%	2.2%	2.2%	1.7%	3.3%	0.4%	1.2%	-2%
Road Distance from Caracas (km.)		4,509	1,416	2,201 (plane)	7,608	6,995 (plane)	2,510	8,536	1,491
Migrants in 2017 (% of Population)		0.3%	0.3%	14.6%	2.8%	13.4%	2.7%	5.4%	0.4%
Migration Legal Stringency		Low	Low	High	High	High	Medium	Low	Medium

Sources: IMF, WB, IOM, UNHCR, Facebook, Google Maps

received Venezuelan migrants as early as 2002, although mostly members of the upper-middle class who fled the Chavista government.²⁰ Flows intensified in 2013, when the Venezuelan economy started rapidly deteriorating, although the number of Venezuelan residents in Peru never exceeded 7,000.²¹ The year 2016 saw Venezuelan net legal migration flows rise to 10,247, while in 2017 it added up to 106,771. By early 2018, net migration flows rose to 40,000, while legal migration surpassed 700,000. Social network estimates, as well as interviews and on-the-ground experience on the Ecuador-Peru border, give reason to believe that the actual number of migrants might be higher than what administrative records show, due to the presence of illegal migration.

Although Peru does not have recent experience as a host country for migrants, its socioeconomic conditions and migration regime have led the country to become the second-largest host for Venezuelans. Although Peru's culture has been shaped not only by its colonial past, but also by European, Chinese, and Japanese migration during the late nineteenth century,²² migration stagnated in the beginning of the 20th century. By 2017, migrants only constituted 0.3 percent of the Peruvian population, while the number of emigrants amounted to between 1.5 and 3 million, or

between 4.4 percent and 8.5 percent of the country's population.²³ With no recent experience accommodating migrants, Peru reacted early to the Venezuelan crisis by creating the Temporary Permanence Permit (PTP) in March 2017, which gave Venezuelan migrants legal residence for up to one year and allowed them to work in the formal sector. The PTP was awarded not only to migrants who had a passport, but also to those who had a birth certificate or a national ID. When migrants had no legal identification, they were able to solicit refugee status. In addition, although PTP is no longer valid for newcomers, there are *de facto* no restrictions for any Venezuelan entering Peruvian territory. Moreover, not only Peru's legislation facilitated migration, but also its recent growth trajectory. In the last 15 years, Peru almost doubled its GDP per capita and lowered poverty by 37 percentage points (from 59 percent to 27 percent).²⁴ This has presented opportunities for migrants, who could also benefit from the country's exceptionally large informal sector. As interviews with recent migrants confirmed, Venezuelans in Peru perceived a less tight labor market than in Colombia, where migrants had long surpassed one million.

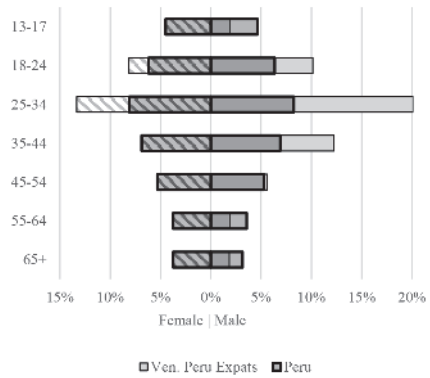
Venezuelan migration in Peru consists of more males, and is on average younger, than both the Venezuelan and Peruvian

populations. As Facebook data shows, and is also confirmed by administrative data from the Peruvian migration department (SNM) and IOM surveys, more than half of the Venezuelan migrants in Peru are young adults between the ages of 18 and 34.²⁵ This represents a larger share for this age group both relative to the age distribution of Venezuelan residents (that is, Venezuelans in Venezuela), and of Peruvian citizens. Senior citizens (older than 65 years) are the smallest demographic group within migrants, and are underrepresented in comparison to Venezuela's population. The share of male migrants is also substantially larger than the male share of Venezuelan and Peruvian residents. According to an IOM survey, at least half of migrants are married, although 73 percent traveled without children, which is consistent with the relatively low share of minors among migrants. As interviews reveal, some Venezuelans initially migrate without their children (sometimes without their spouse/partner), waiting for them to migrate once the first parent has found stable employment and is adequately settled.

Most Venezuelan migrants in Peru have settled in Lima (77 percent), becoming in only two years six percent of the capital's population, and turning it into the city with the most Venezuelan migrants in the world. Venezuelan migrants are not evenly distributed across Peru. While 29 percent of the country's population lives in Lima Metropolitana, at least 76.6 percent of migrants inhabit the city, according to social media data, although in administrative records the share is as high as 86 percent.²⁶ Expats in Lima amount to 6.7 percent of the city's population, making the capital the most Venezuelan city outside Venezuela. Additionally, there are medium-sized communities in Trujillo (representing 2.1 percent of the region's population), Arequipa, and Chiclayo, and small communities in Callao, Piura, Chimbote, Cusco, Ica, Tacna, Tumbes, and Huancayo. Apart from Cusco, the majority of the diaspora has settled on the Pacific coastline, avoiding the highlands and

rainforest regions. Regions' populations appear to be the key factor determining migration shares, as well as average wages and distance from Tumbes' border, which partly explains why Trujillo has a substantially larger share of migrants than Arequipa.

Figure 1 – Peruvian Citizens and Venezuelan Expats in Peru Age and Gender Pyramid



Source: FB, INEI (own estimate)

Migrants have higher levels of education than both locals and Venezuelan residents. As Facebook data shows, Venezuelan expats in Peru have on average a higher level of educational attainment than both Peruvian citizens and Venezuelan residents, as well as Venezuelan expats in Colombia. Facebook data shows that 45 percent of Venezuelan expats in Peru have completed some type of tertiary or college degree, while administrative data yields 55 percent for the same category. There is no complete registry on the number of professionals that have arrived in Peru, although out of 394,000 administrative registries (a third of actual migrants), there appears to be at least 23,000 engineers, 21,000 professors, 22,000 technicians, and 9,000 nurses.²⁷

Venezuelan migrants appear to be generating challenges for Peru's society in three key areas: labor markets, services provision, and public health. According to standard immigration economics literature, a sudden significant migrant shock expands the labor supply, generating lower

equilibrium wages in the short-run, while labor demand adjusts in the medium- to long-run for higher wages. Although in our research neither descriptive nor causal estimates show significant changes in unemployment or wages, interviews reveal that Venezuelans face labor mismatches because they are overqualified or work in different occupations than before, most of them in the informal sector (95 percent). There are also new challenges to services delivery, both in terms of providing the necessary assistance to avoid a humanitarian crisis, and to facilitate integration to education and health services, which risk being overrun by the increase in demand. Our research also shows that the marginal net fiscal impact of the migration is small and manageable, but sensitive to increases in migration rates and labor market behavior. Finally, Venezuela's crisis has generated a resurgence of diseases such as malaria and measles, long eradicated in the region, causing a public health emergency in recipient countries. It is worth mentioning that given the unequal geographical distribution of migration, these three key policy areas have heterogeneous effects across the Peruvian territory.

The Venezuelan diaspora is encountering increasing episodes of xenophobia and may be creating political backlash against the government. Within migrants surveyed in Tacna exiting Peru, 39 percent reported episodes of xenophobia and discrimination, 55 percent of them in public spaces and 41 percent in the workplace. These episodes were also reflected in our interviews with migrants in Lima. As early as July 2017 (when there were fewer than 200,000 Venezuelans in Peru), only 17 percent of Peruvians considered that migration had a positive impact, and 56 percent thought the country had "too many migrants."²⁸ In a more recent poll, 55 percent of Lima's citizens have expressed negative views over Venezuelan migration.²⁹ Forty-six percent of Limeños emphasized a negative impact in the labor market, while 28 percent saw Venezuelans as crowding out public services. Moreover, 94 percent consider that

the government should restrict Venezuelan migration to some degree. This increasing trend in public opinion, as well as the rise of anti-immigrant candidates in the recent municipal elections in Lima, has created a climate for political backlash against the government.³⁰

There is no definite forecast of how many Venezuelans will arrive in Peru in the near future, and estimates are highly sensitive to swings in international politics. In addition to the problems that arise when estimating future aggregate Venezuelan refugee flows, specifically predicting flows to Peru involves making assumptions about Peru and other host countries' migration policies that determine the relative cost of migration. As an example, Peru's announcement of the end of the PTP for migrants arriving after November 2018 produced a local peak in October. Moreover, Ecuador's tightening of the border in January 2019, after the killing of a woman and increasing episodes of xenophobia in Peru's northern neighbor, appear to be sending more migrants to the border in the start of 2019.³¹ As previously stated, the decision to migrate to a particular country depends on the benefits and costs of migration, and these may fluctuate as countries become more or less welcoming. As of 2018, on average, an increase in 100 migrants entering Colombia is significantly associated with 68 migrants entering Peru around three months later. It is not clear how local Colombian, Ecuadorian, and Peruvian politics may affect this rate.

The current situation is posing unprecedented challenges for Peruvian government and society, which have yet to find an official coordinated response. Peru, and more specifically the city of Lima, are experiencing an increase in foreign population that has no precedents in the country's history, although there might be an antecedent in the internal migration from the highlands in the mid-20th century. In addition to the societal challenge of assimilating a new population, the Peruvian government needs to

Table 2 – The Venezuelan Exodus – Principal Host Cities in Peru

Region	Ven. Expats	Population	% of Ven. Expats	% of Dept.	Road Distance to Tumbes	Ave. Wage (2017)	Unemployment (2017)
Lima Metropolitana	576,413	8,574,974	76.6%	6.7%	1,269 km.	1617	6.0%
La Libertad (Trafalgar)	37,643	1,778,080	5.0%	2.1%	712 km.	967	3.3%
Arequipa	9,411	1,382,730	1.3%	0.7%	2,279 km.	1242	5.3%
Lambayeque (Chilayo)	8,234	1,197,260	1.1%	0.7%	500 km.	910	3.8%
Callao	5,882	994,494	0.8%	0.6%	1,268 km.	1222	6.9%
Piura	5,882	1,856,809	0.8%	0.3%	288 km.	900	4.0%
Ancash (Chimbote)	4,705	1,083,519	0.6%	0.4%	844 km.	938	3.4%
Cusco	3,529	1,203,527	0.5%	0.3%	2,369 km.	1158	3.9%
Ica	3,529	850,765	0.5%	0.4%	1,572 km.	841	2.8%
Tacna	3,529	329,332	0.5%	1.1%	2,312 km.	1254	4.4%
Tumbes	3,529	224,863	0.5%	1.5%	0 km.	1040	4.4%
Junin (Huancayo)	2,353	1,246,038	0.3%	0.2%	1,554 km.	996	4.4%
Unclassified	93,759		12.5%				
Total	752,866	29,381,884	100.0%	2.5%		12.61	4.4%

Sources: Facebook, INEI, Google Maps

guarantee the integration of migrants to ensure both their wellbeing and the welfare of Peruvian citizens. Without any built-in capability within the Peruvian bureaucracy to deal with a migration crisis of this scale, the Peruvian government needs to carefully understand the heterogeneous effects of the migration wave and act accordingly, keeping in mind both the increasingly conflictive politics at the national scale and outside pressures from regional powers (Colombia, Brazil) and international institutions (UN, OAS, IADB) that may affect the policy space.

NOTES

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¹⁰Dany Bahar and Douglas Barrios, "How Many More Migrants and Refugees Can We Expect Out of Venezuela?" Brookings Institution (blog), 10 December 2018, <https://www.brookings.edu/blog/up-front/2018/12/10/how-many-more-migrants-and-refugees-can-we-expect-out-of-venezuela/>.

¹¹United Nations Higher Commissioner for Refugees (UNHCR) and International Organization for Migration (IOM), Regional Refugee and Migrant Response Plan for Refugees and Migrants from Venezuela, 2018, https://s3.amazonaws.com/unhcrsharedmedia/2018/RMRP_Venezuela_2019_OnlineVersion.pdf.

¹²Figures are authors' estimates.

¹³Emilio Zagheni et al., "Leveraging Facebook's Advertising Platform to Monitor Stocks of Migrants," Population and Development Review 43, no. 4 (2017): 721–734; Spyridon Spyrtatos et al., Migration Data Using Social Media, EUR 29273 EN (Luxembourg: Publications Office of the European Union, 2018).

¹⁴Bartosz Hawelka et al., "Geo-Located Twitter

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¹⁶Ricardo Hausmann et al., “Measuring Venezuelan Emigration with Twitter,” *Kiel Institute for the World Economy Working Paper* no. 2106 (May 2018); Miguel Ángel Santos, “¿Cuántos son y qué perfil tienen los venezolanos en el exilio? Una aproximación a través de Facebook,” *Prodavinci*, 19 December 2018, <https://prodavinci.com/cuantos-son-y-que-perfil-tienen-los-venezolanos-en-el-exilio-una-aproximacion-a-traves-de-facebook/>.

¹⁷Spyratos et al., *Migration Data Using Social Media*.

¹⁸The former assumption was based on the observation that emigrants are more likely to adopt a Facebook account in the country of destination when the country has a higher penetration rate than in Venezuela (taking into consideration the Facebook penetration rate in South America is 20 percentage points higher than in Venezuela by the end of 2017).

¹⁹Our estimates also include Colombian returnees, as well as the early emigrants of the Chavista era. Moreover, though the methodology allows researchers to gather real-time information on migration beyond what administrative records can show—taking into consideration not only their scattered and late publication, and the lack of records on illegal migration—and provides insights on patterns of the Venezuelan migration, it also has some important shortcomings. First, there is no clarity on what is meant by “Expat” in Facebook’s Advertising API. If reported data is used to estimate Expat users, the number of Facebook users might not be revealing of who is an expat. Nevertheless, if Facebook logins and user networks are used to define “Expats,” Colombian and Peruvian returnees, as well as international students and workers, might bias our estimates. Second, Facebook data is rounded to the thousand level, which prevents estimates to capture geographical localities with

fewer than 1,500 inhabitants. Third, estimates are extremely sensitive to assumptions on Facebook penetration: changing the difference in the platform penetration rates between Venezuelan residents and the diaspora from 0 to 10 percentage points raises estimates on the size of the diaspora by almost a million residents.

²⁰José Koechlin, “Migración venezolana al Perú: Proyectos migratorios y respuesta del estado,” in *El exodo venezolano: entre el exilio y la emigración*, eds. José Koechlin and Joaquín Eguren (Lima, Perú: Colección OEBIMID, 2018).

²¹Government of Perú, Instituto Nacional de Estadística e Informática, Perú: *Estadísticas de la Emigración Internacional de Peruanos e Inmigración de Extranjeros, 1990-2015* (Lima, Perú: INEI, 2016).

²²Ernesto Maguiña Salinas, “Un acercamiento al estudio de las inmigraciones extranjeras en el Perú durante el siglo XIX y las primeras décadas del siglo XX,” *Tierra Nuestra* 8, no. 1 (2016): 65–96.

²³Estimates from World Bank and Superintendencia Nacional de Migraciones data.

²⁴Estimates from World Bank data.

²⁵International Organization for Migration, *Monitoreo de flujo de población venezolana en el Perú DTM ronda 4* (Lima, Perú: IOM Perú, 2018); Government of Perú, Superintendencia Nacional de Migraciones, “Informe Migratorio: Características sociodemográficas de ciudadanos venezolanos que tramitaron el Permiso Temporal de Permanencia-PTP en el Perú 2017-2018,” October 2018, <https://www.migraciones.gob.pe/comunicaciones/publicaciones/Caracteristicas-sociodemograficas-de-ciudadanos-venezolanos.pdf>.

²⁶Government of Perú, Superintendencia Nacional de Migraciones, “Informe Migratorio.”

²⁷Government of Perú, Superintendencia Nacional de Migraciones, administrative data from January 2019.

²⁸Gideon Skinner and Glenn Gottfried, “Global Views on Immigration and the Refugee Crisis,” Ipsos, 13 September 2017, <https://www.ipsos.com/en/global-views-immigration-and-refugee-crisis>.

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³⁰“Candidatos rechazan discurso de Belmont contra los venezolanos,” *El Comercio*, 22 August 2018, <https://elcomercio.pe/politica/candidatos-rechazan-discurso-ricardo-belmont-venezolanos-noticia-549621>.

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3D Titling: Comments on the Introduction of the Transfer of Development Rights to Peru

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ABSTRACT

The transfer of development rights is an instrument of urban policy originally used in the United States. It allows the owners of landmarks in a city to sell their air rights to developers for them to build over the standard height limits of their properties. The article explains the recent introduction of the mechanism to the Peruvian legal system, highlighting the similar logic that it has with the programs of land titling, which have been promoted as a recipe for development in Latin American countries.

1. INTRODUCTION

The transfer of development rights (TDR) is a mechanism that allows owners of landmarks in a city to sell their unused air rights to developers interested in building over the normal height limits. The first time people hear about the mechanism, they cannot help but think that it is the perfect solution for more than one problem. It is welcomed by the owners of landmarks or, in general, properties that have a restricted use, and is also welcomed by developers who are eager to obtain higher profits from their properties. How can this instrument achieve a win-win outcome?

TDR seemingly lets us put the development where we really believe it should be—where sufficient infrastructure, the need for density, the advantages of economies of scale, and so forth exist. At the same time, TDR promises to let us save what we must—wetlands, vistas, farmland, wellhead protection, you name it—without paying a nickel, with no *Kelo*-esque angst of eminent domain, and with the

pleasure of watching the property owner smile all the way to the bank.¹

The TDR is part of a set of regulatory instruments of urban planning that aim to take advantage of the spontaneous forces of the market. This has been part of the appeal used in its introduction to the Peruvian legal system. It was first launched in 2012 in a neighborhood in Lima as a way of protecting its landmark buildings. In the last couple of years, it has become part of a program at the national level promoted by the Ministries of Culture and of Housing.

In the following sections it will first be explained the program introducing the TDR in Peru. That will be followed by an explanation of how this program can be understood within a trend in development theory of advocating market-based regulatory approaches. Finally, it will be argued that the programs of land titling in Latin America and the TDR program have in common the intent of using market forces to promote development.

2. THE TRANSFER OF DEVELOPMENT RIGHTS IN PERU

In 2012, the neighborhood of Miraflores in Lima, Peru launched the program of conservation of old houses,² which entailed the first TDR project in Peru. Miraflores is one of the 43 neighborhoods of Metropolitan Lima, the capital of the country. Lima is governed by the Metropolitan Municipality, and each of the neighborhoods has its own municipality.³ Even though most of the urban planning duties are entrusted to the Metropolitan Municipality of Lima, some of the responsibilities in relation to urban regulation are shared with the neighborhood municipalities.⁴

The municipalities of Lima have different levels of efficiency in their management, mostly correlated to the level of income of their residents. Miraflores is one of the neighborhoods with the highest level of income, and its local government has been in recent years arguably the most progressive in terms of urban planning and governance. It is also one of the oldest neighborhoods of Lima, and therefore is the location of several old houses with value as cultural heritage or neighborhood landmarks.

The fact that many owners of the old houses do not have enough incentives to bear the cost of the restoration or the conservation of their properties led the Municipality of Miraflores to launch the program of conservation of old houses. The program aims to provide the owners of properties that are considered landmarks of the city⁵ with funds for the restoration or preservation of their properties, through the issuance of certificates of development rights by the Municipality. These certificates recognize that the owners of the landmarks would have the right to build on their properties until a certain height, if the properties were not considered landmarks by the government. For that reason, as a compensation for the restriction, the certificate allows them to

build in certain corridors of the city higher than the height limits usually set for those areas. The corridors that will receive the increased development are called the receiving corridors (*eyes receptores*).⁶ The mechanism is based on the fact that the receiving corridors already have sufficient infrastructure and physical characteristics to host such increases in density.

Naturally, few or none of the landmark owners also have property in the receiving corridors and, for that reason, the certificates are designed as a transferable title. In that sense, the holders of the certificates can choose to use them in properties of their own, or to sell them to developers who own properties in the receiving corridors and want to develop a building taller than the basic allowed height.

It took several months for the Municipality of Miraflores to implement the mechanism, and since then it has been used on only eight old houses, according to information provided by the Municipality's own website.⁷ The discussion around the TDR has not garnered much attention either, both because of the novelty of the mechanism and of urban planning not yet being a consolidated field in Peru.

However, the lack of massive involvement of the neighbors and developers with the mechanism contrasts with the dissemination of the TDR among other entities of the government. In 2015, the Metropolitan Municipality of Lima included the TDR mechanism in Ordinance 1869/MML, thereby allowing it to be available to the whole city.⁸ Then, in 2016, the Ministry of Housing approved a regulation norm on territorial planning that contains the TDR as an instrument for "urban finance." More recently, the Ministry of Culture has developed a national-scale program for the restoration and conservation of properties with cultural value through the TDR model.

3. LAW AND MARKET-BASED REGULATORY APPROACHES

In relation to the origins of the mechanism, the TDR was first and most frequently used in New York City. They drew on the concern of groups advocating for the conservation of the city's landmarks in the face of an ever-growing real estate development market. In order to provide the owners of those landmarks with funds, the system allowed the developers to buy the landmark's air rights and consequently extend the traditional height limits of their own developments.

Traditional zoning in New York dates back to 1916. The logic of traditional zoning was the prescription of mandatory limits for buildings. Limits could take the form of restrictions for the use, the height, or the bulk of the properties. Because of its rigidity, the system was reviewed and there was a second stage in zoning regulation that included the possibility of granting special permits and other exceptions to the traditional zoning rules. This implied a higher level of negotiation between the city and the developers. The authority also gained more discretion when reviewing the development plans on a project-by-project basis.⁹

Finally, a third evolution of the zoning rules was the introduction of "market-based regulatory approaches," among which was the TDR. The market-based regulatory approaches rely on the combination of the urban planning public-interest goals and the spontaneous self-interest of the agents of the real estate market. This approach is an acknowledgement of the fact that developers are interested in erecting buildings as tall as possible, in order to obtain the highest profit on their projects. The city can take advantage of that interest by authorizing the extra development in exchange for some kind of amenity or compensation. In the case of the TDR, the extra height granted to the developers comes in exchange for the money invested in the development rights acquired from the landmarks' owners.¹⁰

To give some context, this move in the regulation of urban development coincided with mainstream thinking in development theory in the last decades of the 20th century, which was that the market was the main driver of progress. This approach was different from the development policy of the 1950s and 1960s, which was characterized by the state's strong role in the pursuit of social change. During that previous stage, law was deemed an instrument destined to materialize the intervention of the state in the economy.¹¹ However, by the 1970s and especially in the 1980s, due to the competing ideologies between the West and the Soviet Union during the Cold War, among other circumstances, there was a special effort to spread faith in the market as a tool for development.

The TDR programs clearly complied well with this neoliberal trend, since they implied the creation of a market of new assets (i.e. development rights). Even though the possibility of selling unused air rights had already been introduced in New York zoning regulations in 1916, it could only be used in adjacent lots. The real expansion of the mechanism happened in the 1960s with the landmark preservation legislation that was passed in New York, which provided the possibility of transferring development rights to receiving areas not adjacent to the landmarks. In addition, the consolidation of the TDR came with two court decisions—*Fred F. French Investing Co. v. City of New York*, 39 NY2d 587 (1976), and the famous *Penn Central Transportation Company v. City of New York*, 42 NY2d 324 (1977). Finally, in 1989 the state legislature provided specific statutory authority for TDR in New York by amending the Town, Village, and General City Law (General City Law 20-f; Town Law 261-a; Village Law 7-701).¹²

4. LAND TITLING AND 3D TITLING

When taking these ideas to the field of law and development, one finds that the economic idea of promoting markets was

translated into the enshrinement of property rights. From this perspective, Chang wrote, "The stronger the protection of property rights, the better it is for economic development, as such protection encourages the creation of wealth."¹³ De Soto agreed when he said, "Nearly every developing and former communist nation has a formal property system. The problem is that most citizens cannot gain access to it. They have run into Fernand Braudel's bell jar, that invisible structure in the past of the West that reserved capitalism for a very small sector of society."¹⁴ The protection of property rights and, more generally, the attention of development policy to the institutions of private law constitute what scholars call the moment of "Law and the Neoliberal Market."¹⁵ This was the period when law was seen as an instrument that helped get the prices right, by allowing and promoting private transactions, and ensuring the protection of property rights (i.e. setting the rules of the markets).¹⁶ This instrumentalization of the law, which operated in the Global North, was thought to be a universalizable model. As Trubek and Santos recall it, "Markets were markets, and the same legal foundations would be needed and could operate anywhere."¹⁷ The materialization of this was the extensive land-titling programs promoted in developing countries.

Land titling was deemed the most effective method for reducing poverty in the developing world. It was thought that the reason why low-income people were not able to thrive was that they did not have clear and recorded property rights over their assets. That very fact put them outside the world of formal transactions and, therefore, outside of the opportunity to transfer their properties and/or obtain credit.¹⁸ In that sense, titling was deemed the critical solution because of its potential to eliminate the uncertainty about asset ownership. The inventive character and entrepreneurialism of the people would take care of the rest. The state only had to make sure it provided a consistent

public record of the rights, and enforce them when needed.

Hence, the faith in titling as a means to reduce poverty was implemented by different countries, one of the main examples being the massive titling program that was launched in Peru in the 1990s. The expectation was that titling would immediately activate the assets of low-income people, taking them from the informal to the formal world. This would be possible because, through titling, the government could achieve the foundations of a prosperous market: property rights.

The TDR mechanism basically reproduces the same logic of land titling, but in a tridimensional perspective. In order to provide a specific group with the means to thrive (in this case, the owners of the landmarks), the government gives them a title over an asset that was previously uncertain or even non-existent: the development rights over the landmarks. More importantly, the system allows the transference of that title in transactions that will be subject to the rules of supply and demand. There would even be a record of the transactions of these assets. The purchase and sale deed would be taken to the public registry in order for future purchasers to know that the air rights of that specific property have been sold.¹⁹

Once again, the government is trusting in the power of property rights to form the basis for the creation of new markets: "TDR programs depend upon the creation of a functioning marketplace, with buyers, sellers, and 'market-greasing' intermediaries."²⁰ The role of the city government will be to manipulate the amount of development rights in the market, much like the role of a central bank in a national economy.²¹ Such significance of the markets would lead to a more cost-efficient way of achieving the goal of protecting one of the most important values of a city: the preservation of its landmarks.

In this context, the question is whether 3D titling in Peru will have the same successes and weaknesses as the land titling programs. That is today yet to be seen, and because of space constraints, I will leave my own assessment for a future text.

NOTES

¹Arthur C. Nelson et al., *The TDR Handbook. Designing and Implementing Transfer of Development Rights Programs* (Washington, DC: Island Press, 2012), xiii.

²The program was issued through Ordinance 387/MM of 19 July 2012.

³Except for the area of Callao, the main port. Although it is part of the metropolitan area of Lima, it has the status of a region, which is not under the jurisdiction of any of the Lima authorities.

⁴In this case, the height limits of the buildings are usually a matter of responsibility of the Metropolitan Municipality of Lima. However, according to the interpretation of the Municipality of Miraflores, Ordinance 920 of the Metropolitan Municipality of Lima authorized Miraflores to establish special building conditions for properties in front of parks, avenues, and on corners. Since the so-called “receiving corridors” of the TDR (as it will be explained below) are located in front of avenues, Miraflores would be authorized to regulate this matter under this interpretation.

⁵These could be houses considered as cultural heritage, or houses with a typology that is characteristic of the neighborhood. The exact definition of the intervened areas established in the Ordinance is: “Areas identified in this Ordinance with buildings with predominantly homogeneous characteristics in the treatment of their facades, volume, urban profile, typology and/or architectural style, declared or not by the Ministry of Culture as cultural properties, that are part of spaces or sub-spaces organized by corridors, with a value of group visible from the public space and that have a special regime of conservation and development, according to the established in this ordinance” (Article 3.1

of the Ordinance). As it can be seen, the definition is ambiguous and broad, and could be subject to misinterpretations. However, the ordinance includes in an appendix the actual list of all the properties that would be subject to this special regime.

⁶They are also called in Spanish “*Eje de aprovechamiento del potencial del desarrollo urbano.*”

⁷Municipalidad de Miraflores, “Casonas que están en el programa,” n.d., http://www.miraflores.gob.pe/_contenTempl2.php?idpadre=8770&idhijo=8772&idcontenido=8788.

⁸However, the detailed regulations are yet to be approved.

⁹Jerold S. Kayden, “Market-Based Regulatory Approaches: A Comparative Discussion of Environmental and Land Use Techniques in the United States,” *Boston College Environmental Affairs Law Review* 19, no. 3 (1992): 568.

¹⁰Kayden, “Market-Based Regulatory Approaches,” 568.

¹¹David M. Trubek and Alvaro Santos, *The New Law and Economic Development: A Critical Appraisal* (New York: Cambridge University Press, 2006), 2.

¹²James A. Coon, *Transfer of Development Rights* (New York: Local Government Technical Series, New York State Division of Local Government Services, 2015), 2-5.

¹³Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (London: Anthem, 2002), 82.

¹⁴Hernando De Soto, *The Mystery of Capital* (London: Black Swan, 2001), 160.

¹⁵Trubek and Santos, *The New Law and Economic Development*, 5.

¹⁶Trubek and Santos, *The New Law and Economic Development*, 5; World Bank Group, *World Development Report: Building Institutions for Markets* (Washington, DC: World Bank, 2002), 1.

¹⁷Trubek and Santos, *The New Law and Economic Development*, 6.

¹⁸De Soto, *The Mystery of Capital*, 47-48.

¹⁹Kayden, “Market-Based Regulatory Approaches,” 577.

²⁰Kayden, “Market-Based Regulatory Approaches,” 577.

²¹Kayden, “Market-Based Regulatory Approaches,” 575.

The Nicaraguan Crisis: An Unexpected Awakening Spoils Ortega's Quest for Power

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In September 2008, I was a young man who had just finished a bachelor's degree in economics and was hoping to serve my country as an official in the Nicaraguan public sector, by then governed by an administration that had embarked on a process that would culminate in the dismantling of the democratic institutions of the country. The new government, led by the old Nicaraguan *caudillo* Daniel Ortega, had been elected less than a year before, in a disputed electoral process that allowed him to win with only 38 percent of total votes. Since then, working at the government had become increasingly difficult for those without a political godfather or without membership and active participation in the Frente Sandinista de Liberación Nacional (FSLN), Ortega's party. Nevertheless, I decided to give it a shot, and joined the Ministry of Finance as an intern. After a couple of days, I confronted the extremely politicized atmosphere that dominates the Nicaraguan public sector nowadays: a working environment where political propaganda is present in official documents, emails, the presence of party flags in government buildings, and images of Ortega and his wife, Rosario Murillo, hanging from walls. How could I imagine that such an environment was an omen of even worse things to come?

THE LONG ROAD TO POWER

Ortega's comeback after 16 years in the opposition came through a combination of political maneuvering within and outside his own party, corruption scandals from the opposition, and good timing. After losing the election to Ms. Violeta Barrios de Chamorro in 1990, Ortega was able to retain a considerable amount of power, which allowed him the capacity to influence decision-making from the opposition. For instance, he used his power to threaten Ms. Barrios' government, which had embarked on a series of political and economic reforms to bring back stability after years of war and economic stagnation during the 1980s. Ms. Barrios' government was followed after January 1996 by the Arnoldo Aleman administration. Aleman was a charismatic leader from the center-right Partido Liberal Constitucionalista (PLC), who served as the mayor of Managua, Nicaragua's capital. Aleman's tenure as president was characterized by corruption scandals that surrounded him, his family, and collaborators in his administration. Ortega used these corruption allegations as a coercion device and forged an alliance with Aleman, popularly known as "El Pacto" ("the pact"), by which Nicaragua's major political parties,

at that time the PLC and the FSLN, divided amongst themselves the control of government branches and implemented a series of reforms that would pave Ortega's way to the presidency. Perhaps unwillingly, Enrique Bolaños, who was Aleman's vice president and who succeeded him as president in 2001, gave Ortega a final push to the country's highest office by initiating what Aleman called a "witch hunt" against him and other members of his party who faced corruption allegations. The schism that the episode created within the party was enough to split it into two factions, the PLC and the Partido Liberal Institucionalista (PLI), an event that ultimately gave Ortega the ticket to the presidency of the country.

Another key stakeholder in the quest for power is Ortega's wife. During the revolutionary government of the 1980s and throughout the 1990s, Ms. Rosario Murillo did not have any major decision-making role in the party. However, an opportunity came in 1997, when her daughter, Zoila-merica Narvaez, formally accused Ortega, her step-father, of sexually abusing her during her childhood and adolescence, with the complicity of her mother. Ortega faced a dubious trial, throughout which he did not renounce his immunity as a member of the National Assembly and enjoyed full support from his wife, whose power notoriously increased in the aftermath. Today, Murillo is not only the first lady of the country, but also the vice president. Another important move was the reconciliation of Ortega with the Catholic Church, with which relationships had been severely damaged during the 1980s. To normalize relationships, Ortega made peace with Cardinal Jose Miguel Obando, who eventually married the presidential couple after years of relationship, a sign interpreted as a strategy to attract religious voters. Additionally, over the years Ortega gradually sidelined every possible opponent from within his party. Though during the 1990s internal elections within the FSLN were common, Ortega always managed to win the nomination of the party. Primaries

were ultimately abandoned, and by the time of the 2006 elections Ortega had firm control over the party, with no other FSLN leader able or willing to directly challenge him.

RETAINING POWER BY DISMANTLING A NASCENT DEMOCRACY

The 1990 elections can be viewed as foundational for democracy in Nicaragua.¹ During the 1990s, the country underwent a series of reforms that strengthened democracy and the rule of law. In 1995, under Ms. Barrios' administration, a new constitution was adopted. The new *Carta Magna* decreased the powers of the executive branch. For example, the presidential term limit was decreased from six to five years, and was also limited to one, non-consecutive reelection. Also, relatives of the president were barred from holding posts in the administration. Additional powers were granted to the National Assembly, the legislative body. For instance, the new constitution required an absolute majority to confirm appointees to high government offices proposed by the president. It also envisioned an independent Electoral Council whose members were free from any party affiliation. Another important characteristic of this period was the consolidation of the Homeland Ministry and the Ministry of Defense as the two institutions in charge of overseeing the National Police and the Armed Forces, respectively. In the view of Marti i Puig, the establishment of these institutions was fundamental in the consolidation of civil-military power relationships, since the National Police and the Armed Forces were now required to respond to the Homeland Minister and the Minister of Defense, and not the president directly.²

Despite these achievements, a significant setback was to come. The pact forged by Ortega and Aleman significantly increased partisan influence in the judicial and electoral branches by dividing the number of justices and representatives to

the Electoral Council among both parties. In addition, the electoral law was reformed to allow presidential candidates to be proclaimed winners of an election with only 35 percent of the votes, as long as the difference between the nearest contender was not lower than 5 percentage points. This was by no means a coincidence. Ortega's electoral base had remained almost unchanged throughout the years, never exceeding more than 40 percent of all votes. The division of the PLC, which split into the PLC and the PLI, only benefited Ortega, who saw its former adversary, the PLC, crumbling as a result of internal war-mongering. This party division was fundamental in facilitating Ortega's return to power.

Nevertheless, Ortega and Murillo's work towards power consolidation was far from over. Once in office, the couple focused their efforts on winning the majority of local governments in the 2008 municipal elections. To attain this, they relied again on the Electoral Council. Two main objectives were attained: the first was a move to revoke the legal status of the Conservative Party (PC) and, most importantly, to revoke the legal status of the Movimiento Renovador Sandinista (MRS), founded by former revolutionary leaders who had abandoned Ortega during the 1990s due to his increasingly authoritarian drive. The second was to decrease the oversight of the electoral process by placing obstacles in the way of national and international observers, including representatives of the parties participating in the process. In parallel, Murillo was named the government's spokeswoman and was directly in charge of the entire communication strategy of the government. Murillo developed an impressive communication apparatus, with government propaganda portraying her and her husband as some kind of "savior" who were turning Nicaragua into a country with constant economic growth. In her messages, Murillo combines religion, both Christianity and esoterism, with left-wing political ideology. Additionally, the government focused

on developing an alliance with the private sector. In this regard, the government agreed to maintain and strengthen the neoliberal policy installed by previous governments, encourage foreign direct investment without putting national industry at risk, and maintaining an environment that facilitates doing business in the country. Additionally, a strong mechanism for collaboration and consultation was established in relation to the approval of economic laws. In return, the Nicaraguan private sector committed itself to letting Ortega govern.

After the authoritarian elections of 2008 came the hegemonic elections of 2011.³ In 2010, one year before the next general elections, Ortega and Murillo resorted to one of their closest allies in the judicial branch, Rafael Solís. Solís, who had recently resigned from his post as a Supreme Court justice and his membership in the FSLN, is considered the architect of the legal maneuvers that allowed Ortega to opt for a second continuous term. Solís not only helped Ortega get re-elected, but also paved the way for Ortega to reverse the 1995 Constitutional Amendment limiting presidential re-elections. Again, Ortega and Murillo also used the Electoral Council to consummate a fraudulent election that, among other things, limited oversight and offered limited information on the results by reporting only state-level as opposed to municipal results. According to the official statement by the Electoral Council, Ortega went from 38.07 percent to winning 62.5 percent of the electorate, a whopping 24.4 percentage-point increase over the previous election. At this point, Ortega and Murillo had accumulated so much power that achieving subsequent objectives became relatively easy. In 2012, for the next municipal elections, Ortega and Murillo directly picked the FSLN candidates without any internal competitive nomination process. Out of the 154 municipalities, the FSLN won 134 (87 percent), including all the major cities and the capitals of almost all departments. Again, the Electoral Council proved to be

fundamental to achieve this “victory.” By the next general election in 2016, Ortega and Murillo had completely banned all national and international oversight of the election, removed all credible opposition, placed his own collaborators as his “adversaries” in the election, and limited access to all information concerning the electoral results.

A PARTY-STATE COUNTRY

Despite this authoritarian atmosphere, I decided to go back to the Ministry of Finance after several years working in other public-sector institutions. My interest in the field of planning had grown due to past work experiences, and working for the government provided a good opportunity to specialize within the field. Soon after I arrived, I was informed that I was required to participate in government-led political activities. This meant on-the-ground participation in the delivery of one of the government’s food-security programs and in government rallies, protests, and any kind of political event the party deemed necessary. My colleagues and I were told to wear T-shirts showing political propaganda when we visited the communities, as well as during rallies and public events. Attendance lists were used to keep track of those who either refused or avoided participation, and in several cases these individuals were fired.

It did not take long after rejoining the government that I realized it had been hijacked to serve Ortega’s ambitions. The entire executive apparatus was used to reinforce their authority, but most importantly, the idea that Nicaragua could not be governed by anyone else other than the presidential couple. In addition to using public servants for party activities, the government also used official vehicles to mobilize workers to the party’s meetings and events. For large concentrations in Managua, the party resorted to the public transportation system, using buses to mobilize supporters from low-income

neighborhoods. This left thousands of commuters without transit, forcing them to either pay more or wait long hours for the service to be restored. Government decisions became increasingly centralized, to the point that it created a series of inefficiencies that obstructed policy work. For example, as public servants, we were required to obtain permission from Murillo herself to be able to travel overseas and participate in conferences, events, or meetings. Only a few people in the government are allowed to make public statements, either in speech or in writing. Senior officials avoid taking important decisions due to fear of being fired or being perceived as contravening instructions from the party leaders. There is no government institution free from the party’s influence. Control was also exerted through the government presence on the ground, both at the urban and rural level. In Managua and other cities, party-led committees operate in most neighborhoods and coordinate everything from neighborhood security to leisure activities for the families, combined with political propaganda.

In this increasing concentration of power, and considering Nicaragua’s revolutionary record, one would think a considerable popular reaction would have already taken place, either by way of street protest or by the power of the ballot. Nevertheless, Ortega has been able to maintain economic stability, with an average real GDP growth of 4.2 percent between 2007 and 2017.⁴ Also, the government has attracted foreign investors into the country, which has translated into more jobs, and in some cases, better wages. Additionally, the government has forged a strong alliance with Venezuela, under which it has obtained millions of dollars in aid, ranging from cheap loans to purchase oil or economic assistance to fund social programs. Despite the fact that the government increased its control over all branches of government, thereby eroding the independence of powers, it seemed as if Nicaraguans had traded democracy and rule of law for self-reliance and overall financial stability (national and

personal). Nevertheless, discontent eventually arose.

An important event that contributed to nurture this social dissent was the repression of senior citizens, who in June 2013 demanded an increase in their pensions. The episode, in which many protestors were injured and their belongings such as cell phones and vehicles confiscated, planted a seed of dissent that only grew with subsequent events. One of these was the repression of the peasants' protests against the construction of a massive canal, which authorities reckoned would surpass the neighboring Panama Canal. Other protests, such as those following both municipal and general elections, also faced the same fate, to the point that protesting or exhibiting disagreement or disapproval with the government was met with some kind of violence or with other type of consequences, including financial.

AN UNEXPECTED AWAKENING

The abuse of power, corruption, nepotism, and the constant eroding of state institutions are the fundamental causes that unleashed the current political and economic crisis. While it is true that the tipping point was the approval of the pension system reform in April 2018 that forced workers, retirees, and companies to finance the mismanagement of the social security funds, it was only a trigger that turned the accumulated grievances into a social protest of dimensions never seen since the revolution of 1979. In this regard, the strong repression that was unleashed against university students in 2018 led a large proportion of the population to say "enough." The protest, which initially demanded the repeal of the pension system reform, became an opposition movement on a national (and international) scale, calling for the advancement of elections and the removal of Ortega and Murillo from office. According to a survey done by CID-Gallup, a consulting firm, in September 2018, 61 percent of

Nicaraguans wanted Ortega and Murillo to resign.⁵ Certainly, the crisis allowed for the empowerment of both student and civil society organizations that during the Ortega regime have been harassed, and whose work has been obstructed by public authorities. Also, the magnitude of the repression and the abominable number of deaths (more than 300) left by the government's response to the protests, led the private sector, agglutinated in the Superior Council of Private Enterprise (COSEP), to suspend its "collaboration model" with the Nicaraguan government.

On the international front, reactions and responses did not take long to materialize. On May 31, in a non-legislative resolution, the European Parliament condemned the "brutal repression" of protestors and asked for "credible elections" in the country.⁶ The resolution was approved by 536 votes, with only 39 votes against it. Then, in July 2018, the Organization of American States (OAS), a regional supranational body with considerable influence in the region, held an emergency meeting on Nicaragua and released a resolution condemning "all acts of violence, repression, and human rights violations and abuses committed by police, parapolic groups, and others against the people of Nicaragua."⁷ Twenty-one countries voted in favor of the resolution (out of 31), including the US and Canada, and only three voted against it (namely Venezuela, Bolivia, and Nicaragua). Additionally, the United States has sanctioned five individuals, including Ms. Murillo and Francisco Diaz, the head of the National Police, and the father-in-law of one of Ortega's sons. Furthermore, in November 2018, the White House issued an executive order in which it designated the Nicaraguan government as an "unusual extraordinary threat to the national security and foreign policy of the United States."⁸ The resolution was followed by the approval of the Nicaraguan Investment Conditionality Act, also known as the Nica Act, which restricts borrowing from institutions such as the World Bank and the Inter-American Development Bank, which

together accounted for approximately 47 percent of total foreign aid received by Nicaragua in 2017.⁹

The prospects of the Nicaraguan awakening are unclear. While the country is in a better position now to demand the return to democracy (both in terms of internal momentum and international support), the Ortegas are well armed and enjoy the support of the army and the National Police. They are also backed by Russia, which holds veto power in the UN Security Council. Perhaps what is more relevant to any democratic change is the fact that, over the years, they have created a successful “clientelist” model through which they have secured support from a range of stakeholders within Nicaraguan society. Nevertheless, US sanctions seem like they have started hurting. Due to their relationships with US financial institutions, Nicaraguan banks are re-assessing their relationship with the government. One of Nicaragua’s largest banks, BANPRO, is said to have closed the accounts held by the National Police at that bank in order to maintain its relationship with US financial institutions. More are likely to follow.

While for the country it is fundamental to have international support, the key for any deep democratic transformation relies on the Nicaraguan people. In particular, it is of extreme importance that the anti-government movement remains non-violent. If the National Dialogue is finally resumed, which was suspended by the government last year, the opposition needs to be strategic about what compromises it can actually get. For the moment, the idea of resigning seems far-fetched. A more realistic stance could be to advance the national elections, with supervision from the international community. This is a proposal that has been on the table from the beginning, but to think that the process could take place without the Ortegas, as it has been proposed, may be naive. If such elections are held, Nicaraguan society should see

the potential new government as a transitional one, in charge of not only reverting Ortega’s meddling with the constitution, but also responsible for spearheading a constitutional amendment process that impedes *caudillismo* and upholds democracy, rule of law, and the independence of state powers.

NOTES

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Lessons From the Fire

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Five months after the shameful fire at the National Museum of Rio de Janeiro, no conclusive investigation has been published. An exhibition early this year marked the rebirth of part of the collection that was saved from ashes.

History teaches us that human wisdom has been developed around fire. Not only does it provide heat, light, and protection, but it also enlightens our imagination. Spend a few minutes in front of a campfire and you will inadvertently begin to reflect on life. For the good, and for the bad. Last year, Brazilians were forced to stare at a painful fire—one that brought, yet again, clarity about our failures in protecting the very same human wisdom.

The fire at the National Museum of Rio de Janeiro, in September 2018, consumed more than what was visible to the eye. What we saw in flames was already valuable in itself. On fire, the largest Latin American collection of natural history: artifacts of ethnology, archaeology, bioanthropology, paleontology, paleobotany, geology, and zoology were destroyed. In flames, the work of many researchers, burnt fragments of historical documents, books, and theses flying miles away—spreading throughout the city of Rio de Janeiro. Among the intangible losses were several other layers of history: the museum once visited by Marie Curie and Albert Einstein was previously the palace where the Brazilian imperial family lived during the 19th century; before that, it belonged to a slave trader from the colonial period, built on indigenous territory that was native to at least three different tribes.¹

The real value of the museum deserves much more than the vagueness of the word “inestimable.” But in fact, for many Brazilians, this is the only word that exists. After all, how do you estimate the value of something you ignore? During the fire and in the hours after the tragedy, social networks were infested with comments such as “museums are a waste of public money,” “this is not necessary for the population,” and “I did not even know of the existence of this museum.” Even the current president of Brazil, Jair Bolsonaro, then candidate for the post, when questioned about the incident at the time, responded, “It’s already done, it’s already on fire, what do you want me to do?”²

It is true that for other Brazilians, the value of what was lost was perfectly estimable. They are researchers who have seen their work of several decades indefinitely disrupted, natives who have struggled to overcome the firefighters’ blockade in a desperate attempt to salvage sacred artifacts from their ancestors, and unquestionably all those who are stubborn in a Sisyphean effort to preserve our memory. For them, the feeling of humiliation is “inestimable.” For me, witnessing this abject episode in the history of Brazil was particularly painful, for it happened on the eve of me attending Harvard classes, surrounded by similar academic, historical, and cultural wealth which was then vanishing in my country.

Until today it is not known whether it was an arson or not. Police authorities promised the investigation would finish by the end of January 2019.³ The reasons

for the spread of fire, however, are indisputable: naturally, most of the material of the structure of that old historic building, as well as the collections themselves, are flammable. But other serious factors contributed to this tragedy, as the museum that recently turned 200 years old still awaits the transfer of public funds to invest in the creation of a system to combat fires.⁴ At the moment of the fire, there was no water available—as if water would be the best way to protect such delicate artifacts against these threats.⁵ Fact: to this day, five months later, people who work on the restoration report that the water supply is still frequently cut off at the museum, compromising their efforts.

In Brazil, the precarious situation of fundamental places for academic research is not uncommon. Just to mention some of the losses of this century, we already saw the Portuguese Language Museum in Sao Paulo burn in flames,⁶ and even our only research station in Antarctica is gone.⁷ Such precariousness is also not exclusive to Brazil. Developing countries face the dilemma of smaller budgets; therefore, they struggle with the decision of whether to invest their limited financial resources in science and technology, or to areas equally urgent to the public interest: education, health, and security.⁸ It is not by chance that many of us, Latin Americans, seek to fulfill our academic goals outside of our countries of origin.

Every year, dozens of Brazilians and hundreds of students from developing countries attend Harvard, expecting to pursue the bright path to leadership positions upon returning home. Throughout this experience, we are constantly exposed to the fact that knowledge, although expensive, has an immeasurable value. We have, therefore, an obligation to use our newly acquired skills to preserve the patrimony of human knowledge and instill a culture of intergenerational legacy, which values the past to frame a better future.

The good news is that the National Museum of Rio de Janeiro is being reborn from ashes. Thanks to the resilience of those who value science, in January, the first exhibition with some of the remaining fossil collection was showcased, naturally in a different venue. This is just a sprout germinating from a burnt ancient tree, but lively enough to give us hope that soon the museum will return, if not to its former glory, then at least to its noble finality.

Let us then contemplate this fire with regret, but as a lesson to be learned in the name of our humanity.

NOTES

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What to Expect From US-Latin America Relations in the Era of Bolsonaro?

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A new political juncture brews in Latin American countries, amidst the rise of populist leaders and a general discontent with the ruling parties and elites of the past few decades. This article explores how, despite the notable challenges ahead, the current situation could also open opportunities by shaking up the status quo of regional integration, both in the political and economic realms. In particular, we reflect on the role the US played in the region during the past decades, and—more importantly—what this role could be in the “Era of Bolsonaro” that began on 1 January 2019.

The Latin American political landscape has changed in fundamental ways in the recent past. The rise of partial outsiders—on both the left and right of the political spectrum—and a general backlash against decades of corruption have converged in a veritable critical juncture. Most analysts have highlighted the uncertainty and potential problems that rising populism could bring. We provide a more cheerful assessment, looking at the strategic opportunities that current changes could open for both Latin America and the US. In particular, we notice that the rise of populist leaders (such as Bolsonaro and López Obrador) and business-friendly figures (such as Macri, Piñera, and Duque), together with the prospects of regime collapse in Nicaragua and Venezuela, could be the right catalyst for reestablishing the foundations of cooperation in

the Americas. In this context, the dawn of a new era of pan-American cooperation could be fostered by re-launching a regional integration initiative—one not necessarily focused on trade issues but on strategic alliances in key areas for both sides of the Americas (e.g. educational programs, technology, and innovation).

In the current context, launching a “Strategic Alliance of the Americas” could also open a major window of opportunity for the US to challenge the increasing economic and political presence of China in the Western Hemisphere. While the US remains Latin America’s largest trade partner, China displaced the EU as the second largest in 2018. Measured as a percentage of Latin American GDP, trade with China has grown from 0.5 percent to 2.5 percent in the past two decades. Meanwhile, the volume of trade between the US and Latin America has remained the same. In the financial realm the situation is similar, with Chinese investments and loans seemingly moving to those places where US economic presence is waning.¹ During the past two decades, Latin America’s new international trade agreements have been concentrated with Asian countries and not with the US.² China has also increased its engagement with Latin America in strategic areas such as infrastructure, energy, science, technology, and innovation,³ slowly undermining the American position. The political correlate is clear in the current Venezuelan crisis, with China

being the main economic supporter of the Maduro regime.

Apart from the strategic implications of this “Strategic Alliance of the Americas,” Latin America has its own challenges the US could help address—while at the same time reaping economic benefits. Interestingly, in the global context of protectionism and the lack of multilateral integration, the Western Hemisphere has 33 regional agreements in force.⁴ However, one of the main challenges here is fragmentation of rules among these sub-regional initiatives. This lack of convergence among them has been one of the main reasons it is so difficult for the region to develop global value chains.⁵ If the Western Hemisphere could take the US market as the first step to work on these rules’ convergence, they could be not only resolving a sub-regional problem, but also developing better rules and creating a better economic global value chain in the Americas, which would clearly be a win-win scenario for both sides.

What does the theory say about the prospects of enhancing US-Latin American relations? The analysis of the signature of trade agreements in Latin America suggests two straightforward conclusions: When presidents are relatively powerful compared to domestic interest groups opposed to these agreements, signature is more probable. Conversely, when presidents are relatively weak and entrenched groups grow stronger relative to them, expansions and retractions of these trade agreements are more difficult to achieve.⁶

Take, for instance, the case of the Southern Common Market (Mercosur). The major trade agreement in South America took place at a juncture that was very similar to the present in many respects: The presidents of Argentina and Brazil (the two major members) were facing a daunting scenario of economic crisis and trying to implement profound economic reforms. In Argentina, Carlos Menem (very much like Mauricio Macri now) was a partial outsider,

who unexpectedly rose to the presidency, coming from an obscure branch of Peronism. In Brazil, Fernando Collor de Mello (like Jair Bolsonaro today) was also an outsider who did not belong to any of the major Brazilian parties. These delegative presidents rapidly amassed substantial power and, seeing the necessity for reform—primarily to reduce inflation and thus boost their electoral support—they sidelined the major economic groups in their countries to sign the Buenos Aires Act on 6 July 1990, which established formal mechanisms for the creation of a common market between the two countries.

This story—a story of reformist leaders at the height of their power opposing entrenched domestic constituencies that favor a closed market and thus achieving free trade—is something of a rule in the region. Progress in liberalizing trade between Argentina and Brazil, for instance, was also achieved when dictators Figueiredo and Videla (1980), elected presidents Alfonsín and Sarney (1985), and later Cardoso and Menem (1994), were at the peak of their power and gathered popular support against those groups. Many Latin American countries might have already entered one of these phases, and depending on the results of general elections scheduled for 2019 (in Argentina, Bolivia, El Salvador, and Uruguay), and the resolution of the Venezuelan and Nicaraguan crises, the opportunity for re-launching a Free Trade Area of the Americas (FTAA) could be even greater.

Finally, a question that arises today is: why did the FTAA not succeed in the 1990s, and why would a “Strategic Alliance of the Americas” succeed now? The answer might be in another factor that has radically changed. Back in the early 1990s, Brazil was the main opponent to what George H. W. Bush called the Enterprise for the Americas Initiative. In fact, the idea of Mercosur most probably emerged as a compromise developed by protectionist Brazilian bureaucrats.

It was designed to please the president's call for an overture while protecting Brazil's position as the biggest market in its bloc; it impeded Argentina, Paraguay, and Uruguay from adhering to the FTAA due to Mercosur's unanimity clause. It is unlikely, however, that Brazil would block a new FTAA now. First, Jair Bolsonaro has declared his intention to scrap Mercosur. Second, he has made it clear that he wants to please the US, even suggesting the concession of Brazilian territory for a military base. With Brazil on board, little could stop the new deal.

In sum, if there is anything that this new political "attunement" on both sides of the Americas can do for a prosperous future of US-Western Hemisphere relations, the key is to take advantage of political momentum. Leaders must reestablish the foundations of cooperation throughout the Americas based on a new development agenda, one that goes well beyond political parties and current leaders. Such development could positively impact both sides of the Americas, offering greater political and economic certainty to all.

NOTES

¹Francisco Urdinez et al., "Chinese Economic Statecraft and US Hegemony in Latin America," *Latin American Politics and Society* 58, no. 4 (2016): 3-30.

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⁴Mauricio Mesquita Moreira, *Connecting the Dots: A Road Map for Better Integration in Latin America and the Caribbean*, Special Report on Integration and Trade (Washington, DC: Inter-American Development Bank, 2018).

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⁶Helen Milner and Peter Rosendorff, "Trade Negotiations, Information, and Domestic Politics," *Economics and Politics* 8, no. 2 (1996): 145-189; cf. Luis Schenoni, "The Argentina-Brazil Regional Power Transition," *Foreign Policy Analysis* 14, no. 4 (2018): 469-489.

Plate Tectonics: Global Affairs and the Political Earthquake of January 2019 in Venezuela

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The events that started in January 2019 in Venezuela are driven primarily by Venezuelans' desire for change, but for many international observers and social media commentators natural resource wealth took the spotlight. Whether it was a critique of the United States' involvement or a thesis to explain the interests of other neighbors and major powers, oil seemed to be on the top of everyone's mind. To be sure, oil is indeed a major part of the story of Venezuela, and a strong reason for global and regional powers to be interested in the country. However, it may not be the main reason. Oil is a resource—a means—not an end in itself. Few observers followed longitudinally the events that tied Venezuela's gordian knot. Ultimately, the events that are still shaking Venezuela at the time of writing this piece relate to the security and stability of the Latin American region, as well as the global balance of power.

Energy and a strategic location have historically made Venezuela a geopolitical prize. The Caribbean nation's virtually limitless energy supply, natural deep-water bays, and advantaged position on the Caribbean make it a perfect enclave from which to project power. The Panama Canal as well as most islands of the Caribbean are within immediate reach of its bases.

In 1963 and 1967, Cuba attempted to take over or install an allied government by sending expeditionary forces to Venezuela. It was a coveted asset for the regional communist power, which was

infatuated with Venezuela's geography and natural resources. The Venezuelan military repelled these incursions. Just over 30 years later, the island nation found the regional ally it yearned for when Hugo Chavez won the 1998 presidential election.

Over the course of the following 20 years, Chavez and his hand-picked successor, Nicolas Maduro, cultivated an ideological project: Socialism of the 21st Century, which entailed a full reshuffling of Venezuela's foreign and military affairs. Venezuela's political and economic shift and its alliance with Cuba changed the dynamics of the region, and advanced steadily towards challenging the United States' primacy in the region.

Simultaneously, Russia resurged onto the world stage, eager to assert its status as a global power. China rose to become the largest economy in the world,¹ with the clear goal of being the dominant player in global trade. Lastly, American public opinion, and arguably universal public opinion, grew suspicious of the role of the United States in the world order—particularly during and after the George W. Bush administration. Soon after, the Obama administration took small steps to limit American influence in other countries' affairs—with some notable exceptions, of course. Tensions proliferated as one world power retreated slowly and two [re]emerged.

SOCIALISM OF THE 21ST CENTURY AND THE REGION

The first Sao Paulo Forum was held in 1990. It was organized by the Brazilian Workers' Party—Luiz Inacio Lula Da Silva's party—and originally named "Meeting of Left and Anti-Imperialist Parties and Organizations of Latin America." This movement came to dominate much of Latin American politics for the better part of the first two decades of the 2000s. Hugo Chavez's Bolivarian revolution was undisputedly leading the charge.

This period deserves extensive study. The whole of the movement should not be characterized exclusively by the policy blunders of the Venezuelan administration that led to a humanitarian crisis. However, it is true that the organizations in attendance, many of which would become governments in the region or important political actors, had some common denominators.

One of the dominant shared values was anti-imperialism, which in Latin America has often been expressed as opposition to the United States and European powers. Chavez and Cuba set out to build a new regional paradigm leveraging this shared feeling and Venezuelan petrodollars: Unasur and ALBA were founded,² and regional integration was by many standards deepened. Mercosur was brought back to the fore, after losing much luster in the early 2000s, as an alternative to foster trade within the region rather than with the US. Venezuela joined it, though it did so under dubious circumstances as Paraguay had not ratified its admission.³

The main ideological architects of this movement were the Cuban and Venezuelan governments. During these years, cooperation between them grew to a symbiotic level. Thousands of operatives from the island moved to Venezuela to manage important security functions, notably intelligence and counterintelligence operations.⁴ The Cuban and Maduro

administrations became, for all practical purposes, one and the same. This fact was recognized by American politicians at the onset of the Trump administration, which during its first two years consistently pointed at Venezuela and Cuba as threats to hemispheric stability.

Nicaragua had a similar relationship with Cuba. It received operatives and training for many years. These three administrations constituted what John Bolton dubbed "the troika of tyranny." Their political interests have been aligned more closely than those of any other countries in the region, and they led the charge against the United States on multiple fronts.

Most recently, several Latin American governments have turned away from this current. Starting with the election of Mauricio Macri in Argentina, the region's politics shifted away from the Socialism of the 21st Century. Most importantly, Venezuela's two largest neighbors, Colombia and Brazil, elected right-wing presidents. This pivot would prove crucial in catalyzing the events of January 2019 in Venezuela.

STRATEGIC PARTNERSHIPS: MORE THAN AN IDEOLOGICAL CONNECTION

In addition to steering much of the region into an adversarial position with the United States, the Bolivarian Revolution built bridges with other global actors to undergird this position. Socialism of the 21st Century armed Venezuela. It was of paramount importance to the administration to seek military superiority in the region. More importantly, pivoting away from American armament was of the essence. The narrative, built around enmity for *the empire*, needed to be legitimized with actions.

In an attempt to stimulate domestic production of weapons, Hugo Chavez heavily funded CAVIM, the state-owned

weapons manufacturer. Cooperation agreements in diverse fields (military, knowledge-sharing, agriculture) were signed with Iran.⁵ The Iranian and Venezuelan governments even formed several joint ventures dedicated to manufacturing. Relations between Tehran and Caracas warmed up and, with them, alleged ties with Hezbollah emerged. It has been pointed out that the Quds Force, Iran's elite fighting unit, was in Venezuela training the Venezuelan forces and other subversive groups in asymmetric war.⁶

For Russian weapons manufacturers, Venezuela became a key market. Acquisitions from Russia included Su-30 fighter jets, Mil Mi-28 and Mil Mi-35 attack helicopters, and S-300 mobile air defense systems (a predecessor to the S-400, which made front-page news as Russia deployed them to create what the *Wall Street Journal* called "the new iron curtain").⁷ More recently, Venezuela turned to China for lighter weapon purchases and new aircraft.

SOME PLAYERS AND THEIR INTERESTS

COLOMBIA: The "sister" republic, as it is often called in Venezuela, is arguably the country most directly affected by the Venezuelan debacle. There are multiple estimates for the number of migrants and refugees received there. Most point at a figure of one million or more.⁸ Colombia's capacity to absorb such an influx is limited. Additionally, Venezuela has offered haven to the guerrillas the Colombian government fought against for over 50 years; among them, the ELN, which bombed a police academy on 17 January 2019.⁹ The Colombian government thus opposes Maduro's regime and played a protagonist role in orchestrating the events that started on 11 January 2019 in Venezuela.¹⁰ Colombia's embassy in Washington, DC served as a center of operations for opposition representatives, and Colombian diplomats brought to the attention of American political circles the risks of a rogue Venezuela.

BRAZIL: Brazil and Venezuela were aligned during the Lula-Chavez period. However, Jair Bolsonaro's win in the 2018 elections and the refugee crisis along Brazil's northern border turned the tables. The southern giant is interested in a stable neighborhood and an alignment with the United States.

CUBA: Survival (or failure) of the Maduro regime represents an existential threat for Communist Party rule in Cuba. The island relies on Venezuela for energy and economic aid. Also importantly, Cuba has used Venezuela's influence in the region, particularly in the Caribbean, to affect policy for almost 20 years. President Díaz-Canel was one of the four foreign presidents who attended Maduro's inauguration on 10 January 2019.

MEXICO: Former president Peña Nieto maintained a position of relative diplomatic pressure. However, Mexico declined to join the Lima Group, led by Canada and Colombia, which undertook a variety of diplomatic actions intended to pressure the Maduro regime to yield spaces to the democratically elected National Assembly and to call for new presidential elections. The ideological affinity between the new Mexican president, Mr. Lopez Obrador, and the Chavez-Maduro pair is evident. However, Mexico has ostensibly needed to maintain maneuverability in the face of what could be a rocky relationship between the Lopez Obrador and Trump administrations.

CHINA: Ever the pragmatists, the Chinese have insisted on their position of neutrality and non-interventionism. Their interests are mostly commercial. Close to \$20 billion was still owed by Venezuela on 1 February 2019, out of a total of \$50 billion in loans taken over the course of 12 years.¹¹ Moreover, numerous investments have been made. Several joint ventures between China and PDVSA own vast swathes of the Orinoco oil belt, the world's single largest repository of oil. However, Venezuela is one out of a hundred countries that have borrowed money from China over the last 16 years.¹² It would be impossible to take

any position other than neutrality with a portfolio so large. It would be a diplomatic conundrum for China.

THE PLATES THAT COLLIDED

While China is one of the most important players and its influence in Venezuela and the region could be decisive, it remained largely focused on collecting what is owed rather than expanding its relationship with the Maduro regime. Cuba, Nicaragua, and Venezuela launched a campaign that considerably reduced the United States' influence on the region and were joined by Brazil, Argentina, and Ecuador for a time. Those regional dynamics were part of the collision, but, at this ultimate stage, not its driving force. The main forces on either side of this conflict are Russia and the United States. With the notable role of Colombia as a catalyst for the reactions of the hemisphere, other actors have either fallen in line or tried to stay neutral.

The Chavez-Maduro regime's relationship with Russia has evolved from weapons buyer, to debtor, to a sort of client state. There are two Moscow-based actors with different interests in Venezuela: the Russian government and Rosneft. The former had military and geo-strategic interests, while Rosneft had north of \$10 billion in investments and loans, including a loan collateralized with shares of US-based but Venezuelan-owned CITGO.¹³

The potential for 49.9 percent of CITGO falling in the hands of Rosneft got some attention in Washington, DC in mid-2018. The sanctions imposed by the United States government on Venezuela starting in May 2018 served the dual purpose of pressuring the dictator and insuring the US against a Venezuelan default on the Rosneft loan (since CITGO is seen as a strategic asset). Section 1(a)(iii) of Executive Order 13835 reads:

(a) All transactions related to, provision of financing for, and other dealings in the following by a United States person or

within the United States are prohibited:

...

(iii) the sale, transfer, assignment, or pledging as collateral by the Government of Venezuela of any equity interest in any entity in which the Government of Venezuela has a 50 percent or greater ownership interest.¹⁴

This means that any legal action to attach CITGO shares borne from a default after May 2018 would be stopped. Later, General License 5 was issued to remove incentives to default on the other debts collateralized with CITGO shares by the Maduro regime; that is, the PDVSA 2020 8.5 percent bond.¹⁵ This general license allows for the attachment of assets of the government of Venezuela by the holders of this bond. Additionally, the Treasury department states that "OFAC would consider license applications seeking to attach and execute against such equity interests on a case-by-case basis."¹⁶ Such a request by Rosneft is likely to be denied, particularly because General License 5 is only applicable to holders of this particular bond.

Rosneft also controls at least 13 percent of oil reserves in Venezuela.¹⁷ As mentioned above, however, while oil is important, it is not everything. The Russian government's strategy for Venezuela morphed into a two-pronged approach that became more geopolitical in nature in recent years. Even its oil interests were used as a strategic tool to change the balance of power, but oil as a tool for tilting the balance of power has its limits.

On 10 December 2018, two TU-160 nuclear-capable Russian strategic bombers landed in Venezuela's main international airport as a show of force and support for the regime. While US officials expressed their anger at the move, the Russo-Venezuelan patrols over the Caribbean went ahead as scheduled. On 12 December 2018, rumors circulated of Venezuela granting Russian aircraft a *de facto*¹⁸ Caribbean outpost on La Orchila island.¹⁹ This news was surprisingly underreported despite its great significance.

Russia already has considerable forces on the Arctic Circle, and a variety of national security experts have warned the US about the perils of that buildup.²⁰ Deployment of strategic bombers to the Caribbean would dramatically change the balance of power. It would open up the possibility of Russian power projection onto the western hemisphere and set up a potential pincer movement on the US from north and south. This is especially critical as both countries have considered withdrawing from the intermediate-range nuclear forces treaty of 1987. The door to a renewed Cold War is being opened.

On 15 December 2018, the bombers set their course back to Russia. Interestingly, on 19 December 2018, President Trump suddenly announced the US was withdrawing from Syria. It is provoking to think that the two most recent stages on which US-Russia tensions surfaced are connected, though nothing other than the order of events suggests it. One month later the Venezuelan parliament, based on the Venezuelan constitution and supported by the US, the Lima Group, and others, declared Maduro a usurper and demanded a transitional government and free and fair elections. Actions from the US and Russian fronts followed to legitimize their preferred leader for Venezuela.

FINAL THOUGHTS

The actions taken by the international community at the dawn of 2019 with respect to Venezuela do not exclusively obey interests in Venezuelan oil. The focus for the main regional actors has been the pursuit of stability and security. This charge is being led by Colombia, which undoubtedly has taken the heaviest toll from the Venezuelan humanitarian crisis. Commercial and energy considerations are imperative for some countries, but the struggle will ultimately be about the balance of power in the region and the world.

The line that the Bolivarian Revolution pushed left was pushed back by a coalition of countries which, in this instance, agreed strongly with the US and Canada. Mexico's conspicuous neutrality remained a source of uncertainty at the time of writing, and Cuba's options looked limited as the Trump administration set its sights on reasserting a modernized version of the Monroe Doctrine.

Ultimately, two powers find themselves at odds. In recent years, tensions between the United States and Russia have flared up around the globe and on many dimensions. It may be that this time Russia pushed too far. Tectonic plates can move for a long time until a collision triggers an earthquake, and while collisions normally happen along fault lines, epicenters may vary. Latin America, with its natural affinity for the left and geographic proximity to the United States, has been a fault line since the Cold War. The epicenter this time just happened to be Venezuela. Whatever the undercurrents, most Venezuelans welcomed the shift. Our answer to all the realpolitik framing the actions taken by much of the international community can be summarized in a phrase: *Well, happy coincidence then, we want Maduro out.*

NOTES

¹Using PPP dollars. International Monetary Fund, *World Economic Outlook Database*, updated October 2018, <https://www.imf.org/external/pubs/ft/weo/2018/02/weodata/download.aspx>.

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Alliance, which pitted Paraguay against the three aforementioned nation-states in 1864.

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¹²Carmen Reinhart, “Exposing China’s Overseas Lending,” Project Syndicate, 31 October 2018, <https://www.project-syndicate.org/commentary/china-opaque-foreign-development-loans-by-carmen-reinhart-2018-10>.

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¹⁴Office of the President of the United States, “Prohibiting Certain Additional Transactions With Respect to Venezuela,” Executive Order 13835, *Federal Register* 83, no. 101 (21 May 2018).

¹⁵Department of the Treasury of the United States, Office of Foreign Assets Control, “General License No. 5—Authorizing Certain Transactions Related to the Petroleos de Venezuela SA 2020 8.5 Percent Bond,” 19 July 2018; Department of the Treasury of the United States, “OFAC FAQs: Other Sanctions Programs | What Does Venezuela-Related General License 5 Authorize?” updated 11 February 2019, https://www.treasury.gov/resource-center/faqs/Sanctions/Pages/faq_other.aspx#595.

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