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CHINESE LOANS AND THE RESOURCE CURSE IN ECUADOR AND BOLIVIA

by

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June 2020

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**CHINESE LOANS AND THE RESOURCE CURSE IN ECUADOR
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ABSTRACT

This thesis seeks to determine the cause of the different economic outcomes in Ecuador and Bolivia after the drop in hydrocarbon prices in 2014. Why was Bolivia, under the administration of Evo Morales, seemingly able to escape the resource curse in recent years, while under Correa, Ecuador's economy collapsed when confronted with a bust in commodity prices? Using five characteristics of the resource curse from existing literature, this thesis examines the policies of Correa and Morales to determine whether the leaders avoided the pitfalls of resource wealth while attempting to achieve sustained socioeconomic growth in their respective countries. This thesis hypothesizes that the Correa administration's heavy use of Chinese loans exacerbated the resource curse in Ecuador, while the Morales administration executed conservative macroeconomic policies to partially mitigate the resource curse in Bolivia.

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LIST OF ACRONYMS AND ABBREVIATIONS

ALBA	Alianza Bolivariana para los Pueblos de Nuestra América
bcf	billions of cubic feet
BUILD	Better Utilization of Investment Leading to Development
GDP	gross domestic product
IMF	International Monetary Fund
IOC	international oil company
LAC	Latin America and Caribbean
Mb/d	Millions of barrels per day
MW	megawatt
MWh	megawatt hour
NOC	national oil company
tcf	trillion cubic feet
U.S.	United States
USIDFC	United States International Development Finance Corporation
V-Dem	Varieties of Democracy
YPFB	Yacimientos Petrolíferos Fiscales Bolivianos

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I. CHINESE LOANS AND THE RESOURCE CURSE IN ECUADOR AND BOLIVIA

A. MAJOR RESEARCH QUESTION

The hard turn to the left and rejection of neoliberal policies in Ecuador and Bolivia seemed almost identical for ten years while two democratically elected strongmen held power. Between former Ecuadorian president Rafael Correa (2007–2017) and former Bolivian president Evo Morales (2006–2019), the pair won six elections and slashed poverty and inequality figures in their respective countries. The two polarizing leaders won elections by rejecting the neoliberal model, promising to nationalize the hydrocarbon industry, and converting to a state capitalist model. A central goal of these governments was to defeat the infamous *resource curse*—by which resource-rich countries paradoxically struggle to take advantage of their natural wealth and instead face socioeconomic and political troubles—that had plagued their nations for decades. Both Ecuador and Bolivia are considered “resource rich” by the International Monetary Fund (IMF) because they derive “at least 20 percent of exports or 20 percent of fiscal revenue from nonrenewable natural resources.”¹ Many theorists claim this natural wealth is actually a curse, especially when states possess natural hydrocarbon wealth.² The economies of Ecuador and Bolivia rode the wave of the commodities boom during the initial stages of Correa and Morales’s presidencies. Yet, despite the significant similarities in Ecuador and Bolivia’s recent experiences and their leaders’ shared goals, following the crash of hydrocarbon prices in 2014, the two economies have sharply diverged. Ecuador suffered a sharp decline in gross domestic product (GDP) per capita from 2014 to 2018, losing .32%

¹ Anthony J. Venables, “Using Natural Resources for Development: Why Has It Proven So Difficult?,” OxCarre Research Paper (Oxford, United Kingdom: University of Oxford, 2016), 3.

² See “The Dutch Disease,” *The Economist*, November 26, 1977, ProQuest Central; Terry Lynn Karl, “The Perils of the Petro-State: Reflections on the Paradox of Plenty,” *Journal of International Affairs* 53, no. 1 (1999): 31–48; Venables, “Using Natural Resources for Development: Why Has It Proven So Difficult?”; Michael L. Ross, “What Have We Learned about the Resource Curse?,” *Annual Review of Political Science* 18, no. 1 (2015): 239–59, <https://doi.org/10.1146/annurev-polisci-052213-040359>.

overall.³ Meanwhile, Bolivia enjoyed slowed but steady growth during the same period, gaining 4.67% GDP per capita overall, and did not experience a year of GDP per capita decline. Consequently, Bolivia's socioeconomic gains should continue while Ecuador's improvements in poverty and inequality could be reversed without a significant jump in oil prices.⁴ What accounts for the drastic difference in economic outcomes between these two Latin American nations in recent years? Why was Bolivia, under the administration of Evo Morales, seemingly able to escape the resource curse in recent years while under Correa, Ecuador's economy collapsed when confronted with a bust in commodity prices?

This thesis examines the role of international loan and trade frameworks, and in particular Chinese loan programs, in ameliorating or exacerbating the resource curse. Latin American developing economies have relied heavily on international loans in the past, but Chinese loans are changing the rules of the game. Existing literature theorizes that international borrowing can perpetuate the resource curse if macroeconomic policies are flawed; however, the current literature does not focus on the source and characteristics of the loans themselves.⁵

In the context of Latin America, the thesis argues that the Chinese loan programs that countries across the region relied on to implement major development initiatives during the boom period had similar characteristics to natural resource revenue. In Ecuador's case, the government borrowed heavily from China. These loans exacerbated the resource curse by creating dependency and vulnerability. Bolivia, on the other hand, mitigated the resource curse by decentralizing its government, limiting its reliance on loan programs, and amassing significant foreign reserves to withstand the hydrocarbon bust. In short, the difference between the traditionally resource cursed Andean nations after 2014 is a result of Ecuador's borrowing and Bolivia's savings.

³ "World Development Indicators DataBank," June 10, 2019, <https://databank.worldbank.org/data/reports.aspx?source=2&country=VEN#>. Author's elaboration from World bank data.

⁴ Iván Gachet et al., "Vertical and Horizontal Inequality in Ecuador: The Lack of Sustainability," WIDER Working Paper (United Nations World Institute for Development Economics Research: Helsinki, Finland, 2016), 1–2.

⁵ Terry Lynn Karl, "The Perils of the Petro-State: Reflections on the Paradox of Plenty," 1999, 36.

B. SIGNIFICANCE OF THE RESEARCH QUESTION

This thesis examines the choices resource-rich governments make during boom-and-bust commodity cycles, and the economic and political outcomes those choices lead to. The research question—why are Ecuador and Bolivia experiencing different economic outcomes despite comparable political projects?—can be broken into two sub-questions specific to each country. Do Chinese loans exacerbate the resource curse in Ecuador by causing heightened dependency and vulnerability? Also, did Bolivia’s decentralization and use of foreign reserves mitigate the resource curse? These two questions are important to many resource-rich states currently going through economic and social development and trying to avoid a resource curse. Additionally, both states democratically elected their leaders, but are considered unconsolidated democracies or *semidemocracies*.⁶ This study examines the connection between the resource curse and authoritarian tendencies. This thesis is also significant to the study of state capitalism, as it studies potential missteps and successes of the model in Latin America.

Ecuador’s issues are significant because many countries throughout Latin America and the world are borrowing from China. Many of Ecuador’s loans with China are loan-for-oil deals, and China is using this model with several resource-rich developing states throughout the world.⁷ Additionally, Chinese loan structures are distinct from capital investments or International Monetary Fund (IMF) loans in that they typically have a longer time horizon.⁸ Therefore, this study examines what effect this loan structure has on borrowing nations.

Although Bolivia experienced political turmoil with the ousting of Morales after a disputed election in 2019, the country is economically stable for the time being. If their strong growth during the commodity boom and stability during the bust was a result of

⁶ Scott Mainwaring and Aníbal Pérez-Liñán, “Cross-Currents in Latin America,” *Journal of Democracy* 26, no. 1 (2015): 123, <https://doi.org/10.1353/jod.2015.0003>.

⁷ Eugene Gholz, Umul Awan, and Ehud Ronn, “Financial and Energy Security Analysis of China’s Loan-for-Oil Deals,” *Energy Research & Social Science* 24 (2017): 45, <https://doi.org/10.1016/j.erss.2016.12.021>.

⁸ Stephen Kaplan, “The Rise of Patient Capital: The Political Economy of Chinese Global Finance,” IDEAS Working Paper Series from RePEc, 2018.

state policies, then Bolivia's model should be examined in depth. This thesis aims to determine if the actions of the Bolivian state were responsible for the triumph over the resource curse and what other states in similar conditions can do to replicate the success.

C. LITERATURE REVIEW

To determine the difference between the outcomes of the two resource-rich countries of Ecuador and Bolivia, the literature review will first examine the basic concepts of the resource curse. The discussion will then branch to differing opinions on the cause of the slow growth. Finally, the study will examine how those countries attempt to mitigate the side effects of natural resource wealth.

1. The Resource Curse

Resource curse literature attempts to explain the political, social, and economic problems that resource-rich countries paradoxically face. "Ten years from now, 20 years from now, you will see, oil will bring us ruin...We are drowning in the devil's excrement."⁹ This prediction in the 1970s from former Venezuelan Oil Minister and OPEC co-founder Juan Pablo Pérez Alfonzo was more than a premonition; it became a reality in many countries. *The Economist* coined the term "Dutch Disease" in 1977 to describe some of the problems oil-producing countries experienced after oil discovery—in particular, an overly strong currency, high amounts of government spending, and unwise investing.¹⁰ Author Terry Lynn Karl describes the oil curse as the "paradox of plenty," saying that oil wealth runs havoc on a state's institutions, especially states that are undergoing "modern state-building."¹¹ Michael Ross summarizes one branch of resource curse literature as examining "the relationship between resource wealth and the quality of institutions, meaning the effectiveness of the government bureaucracy, the incidence of corruption, the rule of law, and more broadly, the state's capacity to promote economic development."¹²

⁹ Jerry Useem, "The Devil's Excrement," *Fortune Magazine*, February 3, 2003, https://archive.fortune.com/magazines/fortune/fortune_archive/2003/02/03/336434/index.htm.

¹⁰ "The Dutch Disease," 82.

¹¹ Terry Lynn Karl, "The Perils of the Petro-State: Reflections on the Paradox of Plenty," 34, 35.

¹² Ross, "What Have We Learned about the Resource Curse?," 248.

Authors disagree on the origin of the resource curse due to the variance in outcomes of countries like Ecuador and Bolivia. The mainstream view comes from authors Sachs and Warner. The authors find that low growth occurs in countries with a “high ratio of natural resource exports to GDP.”¹³ This leading theory claims that variance between resource rich-countries comes from a difference in their abundance of resource wealth. However, authors Brunnschweiler and Bulte dispute this finding *and* the use of the term “abundance.”¹⁴ The authors argue that the consensus view is actually describing dependency in a resource rather than abundance, and that the word “dependency” indicates that the causality should be reversed.¹⁵ Brunnschweiler and Bulte claim that weak institutions become dependent on natural resources, not the opposite. Another set of authors also disagree that abundance has a negative relationship with growth and find that the volatility in the price of commodities is to blame.¹⁶ They determine that the boom-and-bust of primary products and the resulting variance on resource rents is what negatively affects growth. Therefore, countries that have diversified economies can avoid what the authors call the *volatility* curse.¹⁷

A growing body of literature now focuses on the policies that politicians put in place to maximize resource rents. Ecuador and Bolivia drastically changed policies after Correa and Morales entered their respective offices, and the decisions of each could be important to the difference in outcomes. Author Erling Røed Larsen stresses that protecting the manufacturing industry is vital to prevent the onset of the Dutch Disease, claiming Norway outpaced its neighbors by shielding the economy from laissez-faire behavior using

¹³ Jeffrey D. Sachs and Andrew M. Warner, *Natural Resource Abundance and Economic Growth* (Cambridge, Mass: National Bureau of Economic Research, December 1995), 2.

¹⁴ Christa Brunnschweiler and Erwin Bulte, “The Resource Curse Revisited and Revised: A Tale of Paradoxes and Red Herrings,” IDEAS Working Paper Series from RePEc, 2006, 3.

¹⁵ Brunnschweiler and Bulte, 3.

¹⁶ Tiago V. de V. Cavalcanti, *Commodity Price Volatility and the Sources of Growth*, IMF Working Paper ; WP/12/12 (Washington, District of Columbia: International Monetary Fund, 2012); W Leong and K Mohaddes, “Institutions and the Volatility Curse,” IDEAS Working Paper Series from RePEc, 2011.

¹⁷ Cavalcanti, *Commodity Price Volatility and the Sources of Growth*, 15; Leong and Mohaddes, “Institutions and the Volatility Curse,” 1.

a “centralized wage negotiation system and income coordination.”¹⁸ Larsen’s argument centers on strong governmental technocratic expertise and a healthy judicial system to protect against unlawful enrichment. The success of countries like Norway influenced a mainstream view that proclaims strong institutions with transparency and accountability are the way to defeat the resource curse.¹⁹ Other authors find this view unrealistic. Not many developing nations can count on strong institutions; therefore, are they destined to suffer from the resource curse? Another approach claims “pockets of effectiveness” within the bureaucracy of a resource-rich state can make the difference.²⁰ An effective bureaucratic pocket within the energy sector will work for the long-term national interests of a resource-rich nation, making cautious deals with international oil companies (IOC) while avoiding clientelism and economic populism.²¹ Author Todd Moss believes the answer to the resource curse is to take the government mostly out of the distribution process of resource rent.²² Instead of numerous social programs, Moss recommends that the resource rents of nationalized industries go directly to citizens in the form of dividends. The process would be more transparent as governments would be held accountable to their citizens, and governments would be able to register citizens for taxation, the ultimate goal of an effective state.²³ Additionally, saving techniques such as sovereign wealth funds and high levels of foreign reserves are common recommendations to protect against the volatility of natural resource markets.

In summary, opinions vary greatly on the matter of ameliorating the resource curse. Authors give many solutions, including strengthening institutions, becoming more

¹⁸ Erling Røed Larsen, *Escaping the Resource Curse and the Dutch Disease? : When and Why Norway Caught up with and Forged Ahead of Its Neighbors* (Statistics Norway, Research Department, 2004), 7.

¹⁹ Giles Mohan, “The Politics of Governing Oil Effectively: A Comparative Study of Two New Oil-Rich States in Africa,” *Brooks World Poverty Institute Working Paper Series*, 2014–74 (2015): 7.

²⁰ Mohan, 3.

²¹ Mohan, 5–11.

²² “Turning Oil into Cash: How Developing Countries Can Win the Resource Lottery and Avoid the Curse,” *Center For Global Development*, June 3, 2015, <https://www.cgdev.org/article/turning-oil-cash-how-developing-countries-can-win-resource-lottery-and-avoid-curse>.

²³ “Turning Oil into Cash.”

transparent, or shrinking government social spending and distributing funds directly to citizens. However, when comparing Ecuador and Bolivia, the two countries have comparable characteristics along many of these dimensions, and none of these approaches consider the role that lending plays in shaping the effects of the resource curse.

2. Chinese Loans

Latin American and Caribbean (LAC) countries borrowed over \$141 billion from Chinese policy banks from 2005 to 2018, with approximately 93% of the money going to just four countries: Venezuela, Brazil, Argentina, and Ecuador.²⁴ The top four countries receiving loans from China have massive potential in their energy sectors and nationalized oil and gas markets. Debate surrounding the loans usually focuses on the influence that China could potentially buy with these loans, but there is a gap in the literature about how the injection of capital specifically impacts Latin American economies. Chinese loans and Latin American resources are intimately connected; therefore Chinese loans could potentially interact with characteristics of the resource curse.

High external debt is a trademark of the resource curse, but the arrival of Chinese financing to developing states is often seen as a solution to overcoming lean profit years from commodities. Chinese loans are not typical of the financing that resource-rich nations have seen in the past. According to author Stephen Kaplan, Chinese loans are a form of *patient capital* for Latin American countries.²⁵ Kaplan asserts that Chinese loans give debtor governments more autonomy and flexibility than the “conditionality-linked Western financing.” He describes the loans as *patient* because they support the state-capitalist model, whereas capital for privatized assets is vulnerable to capital flight from lenders that attempt to maximize short-term gains.²⁶ Kaplan provides statistical evidence indicating that governments receiving money from China are more likely to run a budgetary deficit,

²⁴ Kevin P. Gallagher and Margaret Myers, “China-Latin America Finance Database,” Inter-American Dialogue, June 10, 2019, https://www.thedialogue.org/map_list/; “Congressional Testimony: Dollar Diplomacy or Debt Trap? Examining China’s Role in the Western Hemisphere,” The Dialogue, accessed May 17, 2019, <https://www.thedialogue.org/analysis/congressional-testimony-dollar-diplomacy-or-debt-trap-examining-chinas-role-in-the-western-hemisphere/>.

²⁵ Kaplan, “The Rise of Patient Capital: The Political Economy of Chinese Global Finance,” 1–30.

²⁶ Kaplan, 3.

allowing for more policy freedom. Overall, Kaplan is optimistic about the potential flexibility that Chinese loans could provide developing Latin American countries.

Interestingly, the type of administration that is most likely to take advantage of the enhanced budgetary discretion provided by China is the extreme left, or populist left.²⁷ Although Chinese loans give governments like Ecuador greater fiscal freedom, Kaplan also warns that “by lending without policy conditions, China may be encouraging developing country governments to spend without bounds, sowing the seeds for future debt problems.”²⁸ Therefore, fiscally responsible governments can benefit from the patient option of Chinese financing, but Chinese loans also encourage irresponsible spending. Harold Trinkunas agrees with Kaplan’s caveat, and the author finds that direct Chinese leverage on Latin American countries’ domestic policies is limited, but Chinese loans enable governments “to pursue their preferred policies more aggressively.”²⁹ Although Trinkunas finds that “countries with weak governance indicators” are negatively affected by the loans, the relationship is indirect. Consequently, Latin American governments’ *decisions*, rather than Chinese pressure, are directly responsible for an erosion of “democracy, human rights, labor, and environmental gains.”³⁰ Therefore, Chinese loans alter political and economic outcomes by intensifying the impact of policy choices due to the large amounts of capital they inject into some countries and not others. Governments that make fiscally responsible choices can accelerate growth, whereas governments that suffer from ineffective or authoritarian leadership can amplify their problems.

Overall, Kaplan focuses on the potential positives of patient capital while Trinkunas mainly concentrates on whether China is buying influence. They acknowledge that the loans have the potential to amplify poor policy decisions, but the authors do not discuss how Chinese loans interact with the most significant part of many Latin American

²⁷ Kaplan, 4.

²⁸ Kaplan, 1.

²⁹ Harold Trinkunas, “Renminbi Diplomacy? The Limits of China’s Influence on Latin America’s Domestic Politics,” *Order from Chaos: Geoeconomics and Global Issues* (Foreign Policy at Brookings, November 2016), 3.

³⁰ Trinkunas, 3.

economies—the extraction, production, and exportation of natural resources. This thesis attempts to fill this gap in the literature and to connect Chinese loans and their effect on the resource curse.

3. The Impact of Chinese Loans on the Resource Curse

This thesis identifies five specific characteristics of the resource curse from the literature: ineffective institutions, authoritarian tendencies, dependence on resource wealth and negative trade balances, high government spending, and misguided public works—and considers the extent to which Chinese loans may exacerbate resource curse dynamics along each of these areas. First, the resource curse characteristic will be explained, and then the potential connection to Chinese loans will be examined.

a. Characteristic 1: Ineffective Institutions

A state that suffers from the resource curse will often experience centralized decision-making. Therefore, scholars claim that politicians are able to undermine state institutions, and perceived corruption is more likely. Karl contends that rulers of resource-rich states “have no immediate incentives” to be frugal or decentralize their power, and therefore become overcentralized in order to “give foreign capital a bargaining partner.”³¹ Over time, hydrocarbon contracts have transitioned from IOC domination to greater ownership by individual states in the form of national oil companies (NOC). This transition gives more natural resource ownership to the central government, and when the institutions of the government are weak, states typically fall prey to corruption and squander their resources in unproductive activities.³² Corruption in particular can discourage traditional investors that might bolster a country’s extraction industry.

The terms and conditions of Chinese loans lack transparency and conditionality, and China prefers to negotiate government-to-government.³³ Multilateral organizations,

³¹ Terry Lynn Karl, “The Perils of the Petro-State: Reflections on the Paradox of Plenty,” 1999, 37.

³² Halvor Mehlum, Karl Moene, and Ragnar Torvik, “Institutions and the Resource Curse*,” *Economic Journal* 116, no. 508 (2006): 3, <https://doi.org/10.1111/j.1468-0297.2006.01045.x>.

³³ “Congressional Testimony.”

such as the IMF, grant loans based on the condition that a government is not corrupt and practices good governance.³⁴ Due to these differences from typical loans, Chinese loans could exacerbate corruption and hurt government effectiveness in Ecuador.

b. Characteristic 2: Authoritarian Tendencies

A high majority of resource-rich nations are authoritarian. Ross demonstrates that “the greater a country’s oil income, the less likely it has been to transit to democracy.”³⁵ In particular, Ross claims that authoritarians with extra cash from resources are able to buy off citizens, cover up the state’s finances, and invest in the loyalty of their military.³⁶ However, Thad Dunning claims that democracy in Latin America is an exception to the rule due to the inequality of the region.³⁷ Dunning asserts that Latin American states are more likely to democratize than other resource-rich regions because “resource rents mitigate the negative impact of inequality” and incentivize elites to maintain the status quo. Rent revenues also reduce the probability that elites will be heavily taxed.³⁸ However, many Latin American states remain unconsolidated because of competing resource-related authoritarian tendencies.³⁹ Authors Stephen Haber and Victor Menaldo contest the legitimacy of the resource curse over the long run, but they do agree that authoritarian leaders can prolong their rule with resource rents.⁴⁰

There is a disagreement between authors concerning the role that aid—or loans for that matter—play in democratization. One side of the argument claims that authoritarian leaders can use the nontax revenue to hinder their competition and buy time in office,

³⁴ “IMF and Good Governance,” March 3, 2020, <https://www.imf.org/en/About/Factsheets/The-IMF-and-Good-Governance>.

³⁵ Ross, “What Have We Learned about the Resource Curse?,” 243.

³⁶ Michael L. Ross, “Will Oil Drown the Arab Spring? Democracy and the Resource Curse,” *Foreign Affairs* 90, no. 5 (October 2011): 3–4.

³⁷ Thad Dunning, *Crude Democracy: Natural Resource Wealth and Political Regimes*, *Cambridge Studies in Comparative Politics*, 2008, 4, <https://doi.org/10.1017/CBO9780511510052>.

³⁸ Ross, “What Have We Learned about the Resource Curse?,” 246.

³⁹ Dunning, *Crude Democracy: Natural Resource Wealth and Political Regimes*, 22.

⁴⁰ Stephen Haber and Victor Menaldo, “Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse,” *American Political Science Review* 105, no. 1 (2011): 25, <https://doi.org/10.1017/S0003055410000584>.

sustaining their regimes.⁴¹ Sarah Bermeo contests that foreign assistance is more nuanced.⁴² Bermeo suggests that donors “are a driving force in determining” the relationship between democratization and aid, and claims that on average, aid from democratic nations has not caused a decrease in democratization. However, the authoritarian Chinese government has displayed apathy concerning the policies of recipient nations, and Beijing is not accountable to its own population in comparison to democratic lenders. Therefore, Chinese loans may in fact act exceptionally similar to resource rents by giving additional funds—with less accountability attached—to leaders with authoritarian tendencies in unconsolidated democracies. Leaders could use these funds to oppress political opponents while consolidating power and prolonging their time in office. Although Ecuador and Bolivia hold democratic elections, both nations have experienced democratic erosions under Correa and Morales.⁴³ However, the additional nontax revenue from China could have given Correa more independence than his Bolivian counterpart to oppress political opponents and halt democratization in Ecuador.

c. *Characteristic 3: Dependence on Resource Wealth and a Negative Trade Balance*

States that are resource-rich typically reinvest into the energy sector and neglect other domestic industries. Karl reveals that industries such as manufacturing suffer while the government continually invests in expensive infrastructure for the energy industry.⁴⁴ Additionally, governments rely on nontax revenue from extraction and consequently avoid accountability from citizens.⁴⁵ On the other hand, there are potential benefits to policies of extractivism, “such as stabilizing rates of growth, increasing direct foreign investment,

⁴¹See Bruce Bueno de Mesquita and Alastair Smith, “A Political Economy of Aid,” *International Organization* 63, no. 2 (2009): 309–40, <https://doi.org/10.1017/S0020818309090109>; Kevin Morrison, “Natural Resources, Aid, and Democratization: A Best-Case Scenario,” *Public Choice* 131, no. 3 (2007): 365–86, <https://doi.org/10.1007/s11127-006-9121-1>.

⁴² Sarah Blodgett Bermeo, “Aid Is Not Oil: Donor Utility, Heterogeneous Aid, and the Aid-Democratization Relationship” 70, no. 1 (2016): 29, <https://doi.org/10.1017/S0020818315000296>.

⁴³ Mainwaring and Pérez-Liñán, “Cross-Currents in Latin America,” 116.

⁴⁴ Karl, Terry Lynn, “The Perils of the Petro-State: Reflections on the Paradox of Plenty,” 1999, 34.

⁴⁵ Ross, “What Have We Learned about the Resource Curse?,” 246.

expanding the middle classes and reducing poverty.”⁴⁶ States that promote extraction build confidence for foreign investment; however, investments can lead to overconfidence and capital flight. Overconfidence in a country’s resource industry can increase the value of the country’s currency. Consequently, an increase in currency value means more expensive—and therefore less competitive— exports. The result is a negative trade balance, especially when combined with a stagnant manufacturing industry that is unable to competitively add value to exports.⁴⁷

Loans can exacerbate dependence on resource wealth and produce negative trade balances because financing is generally tied to the extraction, processing, and transportation of the resource. The lender is investing in the future production of the resource, but typically stops short of assisting in value-added manufacturing. China is the world’s leader in manufacturing, and the Chinese government would achieve higher gains by investing in the output of raw materials and adding value on Chinese soil.⁴⁸

China invests heavily in energy projects and the infrastructure that will funnel resources to its enormous population. Therefore, Chinese financing could push further dependency on energy in Ecuador. The loans could also increase Ecuador’s dependency on China instead of taxation. Chinese loans take the place of taxation, reducing accountability from Ecuadorian citizens. Furthermore, many Chinese loans lack the conditionality of multilateral loans, and therefore Ecuador’s government is not accountable to accepted macroeconomic spending practices. Bolivia’s reliance on savings potentially slows its investment back into the energy sector. To invest heavily in the energy sector, Bolivia would have to rely on raised taxes and increased rent from production. Following

⁴⁶ Hans-Jürgen Burchardt and Kristina Dietz, “(Neo-)Extractivism - a New Challenge for Development Theory from Latin America,” *Third World Quarterly* 35, no. 3 (2014): 469, <https://doi.org/10.1080/01436597.2014.893488>.

⁴⁷ Larsen, *Escaping the Resource Curse and the Dutch Disease? : When and Why Norway Caught up with and Forged Ahead of Its Neighbors*, 5. Dependence on resource wealth and a negative trade balance are two symptoms of the Dutch Disease, which is often treated as a separate concept from the resource curse. However, this thesis combines the concepts because both phenomena result from resource riches.

⁴⁸ Darrell M. West and Christian Lansang, “Global Manufacturing Scorecard: How the U.S. Compares to 18 Other Nations,” Brookings (blog), July 10, 2018, <https://www.brookings.edu/research/global-manufacturing-scorecard-how-the-us-compares-to-18-other-nations/>.

this logic, Ecuador should show signs of exacerbating its dependency on resource wealth in comparison to a normal trajectory in Bolivia.

d. Characteristic 4: High Government Spending

States with the resource curse suffer from a tendency to overspend. Spending money on social programs can help populist leaders stay in power. Leaders use patronage and social reforms to appease citizens or be reelected.⁴⁹ Government bureaucracy becomes bloated and government spending rises with the price of commodities. Additionally, states neglect savings measures such as sovereign wealth funds or foreign reserves. Finally, the population becomes accustomed to a higher standard of living and austerity measures become unacceptable politically.

However, Chinese loans, just like natural resources, are extinguishable. In fact, Chinese loans to Latin America have already begun diminishing.⁵⁰ Leaders of resource-rich nations do not have incentives to be frugal with their social budget during commodity booms. Consequently, a leader that accepts a Chinese loan can continue with an elevated budget even when the resource market hits a recession. Overall, the expectation is that Ecuador spent more money on social programs because it relied on Chinese loans to pad the country's social spending.

e. Characteristic 5: Misguided Public Works

Governments experiencing the resource curse invest hastily, often in white elephant projects. Karl contends that the newfound wealth influences leaders of developing nations to avoid savings or austerity measures and fund major development projects at home and

⁴⁹ Burchardt and Dietz, "(Neo-)Extractivism - a New Challenge for Development Theory from Latin America," 477.

⁵⁰ Margaret Myers, "The Reasons for China's Cooling Interest in Latin America," May 4, 2019, <https://www.americasquarterly.org/content/how-beijing-sees-it>.

abroad.⁵¹ Politicians invest in projects that have political appeal but do not necessarily entail economic promise for their country.⁵²

Foreign investment can provide surplus cash for large infrastructure projects or even a leader's pet projects. Borrowed funds are exchanged for future resource rents. Consequently, loans allow resource-rich governments to undertake projects that are not immediately attainable to resource poor countries. This could mean faster development for resource-rich countries if projects are chosen carefully, or irresponsible spending if discernment is not employed. Multilateral organizations such as the IMF are more restrictive than Chinese loans concerning their spending criteria. Unlike Chinese development banks, "the IMF does not lend for specific projects."⁵³

Chinese loans may not have the conditionality of multilateral loans as discussed by Kaplan, but many loans do come with the condition that accepting countries hire Chinese firms and use Chinese labor. Therefore, countries that undertake large-scale projects with Chinese development banks and construction firms lose out on some of the positive externalities of the projects, such as increased employment in local communities. The expectation is that Ecuador used Chinese loans to amplify the size and amount of projects that a similar country—like Bolivia—would have undertaken. Furthermore, it is expected that Ecuador experienced more bottlenecked or failed projects because Chinese loans—and resource rents—are erratic.

In summary, two countries that have traditionally suffered from the resource curse may have different political and economic outcomes if one government chooses to take out loans while the other is more cautious with Chinese financing. It is expected that both countries continue to experience the resource curse. However, Ecuador's curse may be exacerbated because of the characteristics that Chinese loans share with resource rents.

⁵¹ Terry Lynn Karl, "The Perils of the Petro-State: Reflections on the Paradox of Plenty," 1999, 35.

⁵² Ragnar Torvik, "Why Do Some Resource-Abundant Countries Succeed While Others Do Not?," *Oxford Review of Economic Policy* 25, no. 2 (2009): 253.

⁵³ "IMF Lending," IMF, accessed April 25, 2020, <https://www.imf.org/en/About/Factsheets/IMF-Lending>.

D. POTENTIAL EXPLANATIONS AND HYPOTHESES

This thesis hypothesizes that Chinese loans exacerbate the resource curse by generating the incentives for loan-receiving countries to overfocus on the development of their natural resources. Specifically, the thesis hypothesizes that countries that receive Chinese loans should experience the heightening of the resource curse along the following dimensions:

(1) Ineffective Institutions

Due to a lack of transparency with Chinese lending, Chinese loans from development banks will be associated with a higher degree of centralized decision-making and corruption.

(2) Authoritarian Tendencies

Chinese loans will act similar to resource rents by reducing overall accountability for authoritarian leaders and allowing these leaders to hinder democratization by stifling the opposition.

(3) Dependence on Resource Wealth and a Negative Trade Balance

Chinese loans will increase an economy's investments in resource extraction, further neglecting value-added manufacturing practices. Additionally, the loans will increase the unbalanced trading relationship with China.

(4) High Government Spending

The option of Chinese lending further reduces incentives to save and will be associated with higher spending.

(5) Misguided Public Works

Chinese loans will produce more white elephant projects and more project failure.

E. RESEARCH DESIGN

1. Case Selection

This thesis will consist of two case studies of both Ecuador and Bolivia and how each government's choices affected the resource curse. Ecuador and Bolivia were in relatively similar circumstances at the beginning of the presidencies of Correa and Morales. Both states were—and continue to be—considered “resource-rich” by the IMF.⁵⁴ Ecuador and Bolivia's primary resources are hydrocarbons. Ecuador's main export is petroleum while Bolivia specializes in natural gas, and overall hydrocarbons account for more than half of each country's exports.⁵⁵ Both countries had previously suffered from symptoms of the resource curse, and both leaders were able to reset their natural resource industries to a certain extent through nationalization and debt reduction. Furthermore, Correa and Morales were both considered populist leaders from Alianza Bolivariana para los Pueblos de Nuestra América (ALBA) states, and each leader rode the wave of the commodity boom until the crash of oil prices in 2014. Therefore, comparing the starting point and the choices of both governments helps to answer the research question.

To understand the difference between the two Andean states, their economic and political performance will be studied to determine if Chinese loans exacerbated the resource curse in Ecuador, and if Bolivia mitigated the curse's effects with decentralization, cautious borrowing, and increased savings. Each selected resource curse characteristic will be discussed separately.

Starting with characteristic 1—institutional weakness—the quality of each state's institutions will be surveyed. In each case study, the countries will be analyzed to determine if large economic decisions are centralized to a few leaders. Additionally, measures of corruption will be observed over time and to indicate the quality of institutions. In the individual case studies, corruption will be measured with the executive corruption index and regime corruption data from the Varieties of Democracy (V-Dem) website. The data

⁵⁴ Venables, “Using Natural Resources for Development: Why Has It Proven So Difficult?,” 3.

⁵⁵ “Bolivia,” Independent Statistics and Analysis (Washington, DC: U.S. Energy Information Administration, July 2015). “Ecuador,” Independent Statistics and Analysis (Washington, DC: U.S. Energy Information Administration, October 5, 2017).

will be discussed in addition to narratives of corruption due to resource rents and Chinese loans.

To appraise characteristic 2—authoritarian tendencies—in each country, the narrative will focus on the authoritarian incentives provided by resource rents and Chinese loans. To determine the impact the Chinese loans had on the countries' respective democracies, the case studies will track the dispersion of the loans and savings alongside elections and examine how the loan money and resource rents were invested. The V-Dem liberal democracy index will also be examined for each country.

For characteristic 3, dependence on resource wealth and negative trade balances will be considered by tracking the spending of the loans on the energy sector, observing taxation data in both countries, examining petroleum and natural gas production numbers during the Correa and Morales administrations, and assessing the trade balances of Ecuador and Bolivia.

To evaluate characteristic 4—high government spending—in Ecuador and Bolivia, the social spending of each country will be measured and discussed. Additionally, the savings of the two Andean states will be examined using gross domestic savings and foreign reserves as a percentage of debt. Both expenses and savings will be placed in the context of the volatility of the hydrocarbon market and Chinese lending.

Finally, to determine whether a public work is misguided for characteristic 5, key government projects will be assessed to determine their efficacy for the local population. The narrative will highlight the funding and progress of each project in comparison to expectations. This section will also identify projects that failed or are currently bottlenecked, which would indicate wasted investments.

F. THESIS OVERVIEW AND CHAPTER OUTLINE

The thesis will consist of two case studies. Chapter II will concentrate on the Ecuadorian government's choice to borrow money from China. After providing an overview of the lending relationship and history between China and Ecuador, the chapter will consider how Chinese loans have interacted with the resource curse along each of the

characteristics identified. Chapter III will present a case study of the Bolivian case, focusing on evaluating how the absence of Chinese loans, coupled with a strategic increase in foreign reserves, affected the resource curse along each of the characteristics. The conclusion of the thesis will compare and contrast the two countries' actions and the impact for developing countries in Latin America and the rest of the world.

II. HOW CHINESE LOANS EXACERBATED THE RESOURCE CURSE

A. INTRODUCTION

In October of 2019, Ecuadorian President Lenin Moreno announced the end of fuel subsidies as part of a series of austerity measures enacted to receive an IMF loan. The Ecuadorian government negotiated the loan to ameliorate a large budget deficit created by former President Rafael Correa, who had partially funded populist economic policies with more than \$19.3 billion in loans from China.⁵⁶ Moreno's announcement sparked severe public backlash, as protests ensued throughout the country and President Moreno was forced to move the government out of the capital city of Quito.⁵⁷ Moreno and his administration eventually rolled back the austerity measures after holding talks with local unions and indigenous communities, but Ecuador's financial dilemma remains unsolved. Superficially, the political unrest was due to unwelcome austerity measures, but the source of these financial problems is deeper and may be a result of the loans from Chinese development banks. This is significant because variants of the loan-for-oil model are typical in China's approach to energy rich-countries. As China continues its "Go Out" policy and targets resource-rich states, how will Chinese interests affect these countries? This chapter is a case study of Ecuador's difficulties with the resource curse, and the impact Chinese loans have on this phenomenon. Overall, this chapter posits that Chinese loans have exacerbated the resource curse in Ecuador by creating dependency and vulnerabilities.

⁵⁶ Gallagher and Myers, "China-Latin America Finance Database," June 10, 2019; Paulina Garzón and Diana Castro, "China-Ecuador Relations and the Development of the Hydro Sector," in *Building Development for a New Era: China's Infrastructure Projects in Latin America and the Caribbean*, ed. Enrique Dussel Peters, Ariel C. Armony, and Shoujun Cui (Asian Studies Center, Center for International Studies, University of Pittsburgh, Red Académica de América Latina y el Caribe sobre China, 2018), 28–29. See note 26 for explanation.

⁵⁷ León Cabrera, José María, "Ecuador's President Moves Seat of Government to Escape Protests," *New York Times*, October 8, 2019, <https://www.nytimes.com/2019/10/08/world/americas/ecuador-protests-president.html>.

B. THE RESOURCE CURSE BEFORE CHINESE LOANS

The effects of the resource curse in Ecuador predate the issue of Chinese loans and the administration of Rafael Correa. Oil was first discovered in 1878 in Ecuador, but the first significant discovery occurred in 1967 when Texaco found a vast supply in northern Ecuador.⁵⁸ Soon after, oil comprised over 50% of Ecuador's exports and increased total export revenue from \$195 million in 1971 to \$1.4 billion in 1977.⁵⁹ Ecuador continued to concentrate on its oil industry, and several characteristics of the resource curse started to appear. As revenue climbed, taxes actually decreased while government spending increased with the help of foreign loans.⁶⁰ Ecuador relied heavily on private loans during the 1970s and 1980s, but the government defaulted in 1987 when oil prices collapsed.⁶¹ Ecuador later converted these same loans to bonds in 1994, but again defaulted on the bonds in 1999 when the economy collapsed. Finally, in 2000, the bonds were again restructured and Ecuador abandoned the Ecuadorian sucre in favor of the American dollar to help control inflation.⁶²

Rafael Correa entered office in January 2007 after campaigning on a platform of state capitalism, which was a popular response to high oil prices and unfavorable oil contracts made in the 1990s.⁶³ Correa reinforced his stance against neoliberalism in 2008 by declaring Ecuador would not pay the previously restructured \$3.2 billion in loans, and by claiming bondholders were the “real monsters.”⁶⁴ However, Ecuador supposedly had the capacity to service the loans. An unnamed Ecuadorian financial representative claimed “from a financial point of view, there was no reason to default. This was only done to

⁵⁸ Kathleen Gould, “Oil in Ecuador: The Traps of Transnational Capitalism,” n.d., 11–12.

⁵⁹ Gould, 12.

⁶⁰ Gould, 13.

⁶¹ Jonas B. Bunte, *Raise the Debt: How Developing Countries Choose Their Creditors* (Oxford University Press, 2019), 100.

⁶² Bunte, 101.

⁶³ Antulio Rosales “Structural Constraints in Times of Resource Nationalism: Oil Policy and State Capacity in Post-Neoliberal Ecuador,” *Globalizations* 17, no. 1 (2020): 78, <https://doi.org/10.1080/14747731.2019.1614722>.

⁶⁴ Naomi Mapstone, “Ecuador Defaults on Sovereign Bonds,” *Financial Times*, December 12, 2008, sec. South America, <https://www.ft.com/content/7170e224-c897-11dd-b86f-000077b07658>.

satisfy an ideological dream. They [the government] defaulted because they believe that debt is something evil that keeps developing countries underdeveloped.”⁶⁵ Ecuador later bought back a majority of those same loans for 35 cents on the dollar.⁶⁶ During his first year in office, Correa imposed a 99% windfall tax on foreign oil companies, only lowering it to 70% when companies agreed to enter into negotiations.⁶⁷ Eventually, several companies came to the table to negotiate. However, despite the new administration’s successful capture of a higher rent intake during surges in oil prices, author Antulio Rosales claims that the government did not protect itself during periods of low prices. In fact, after the drop in prices in 2014, Ecuador’s fixed service fee was higher than the international price of oil.⁶⁸ The state was extracting at a loss while the oil companies still profited. Meanwhile, Correa doubled the size of the state.⁶⁹ Overall, Correa and his predecessors established policies that were typical of states suffering from the resource curse, but Correa’s decision to borrow from Chinese development banks only magnified Ecuador’s problems.

C. HOW CHINESE LOANS EXACERBATED THE RESOURCE CURSE

Although Latin America was experiencing an overall commodity boom because of a rise in demand from China, Ecuador’s economy suffered in 2009 due to a drop in oil prices. Beginning in 2010, as oil prices declined, China substantially increased the amount and frequency of loans it provided to Ecuador. China’s influence continued to exponentially increase, and 70 Chinese companies were working in Ecuador by 2014.⁷⁰ By 2016, China was Ecuador’s largest lender and infrastructure contractor.⁷¹ From 2010

⁶⁵ Bunte, *Raise the Debt*, 90.

⁶⁶ Bunte, 102.

⁶⁷ Antulio Rosales, “Structural Constraints in Times of Resource Nationalism: Oil Policy and State Capacity in Post-Neoliberal Ecuador,” 85.

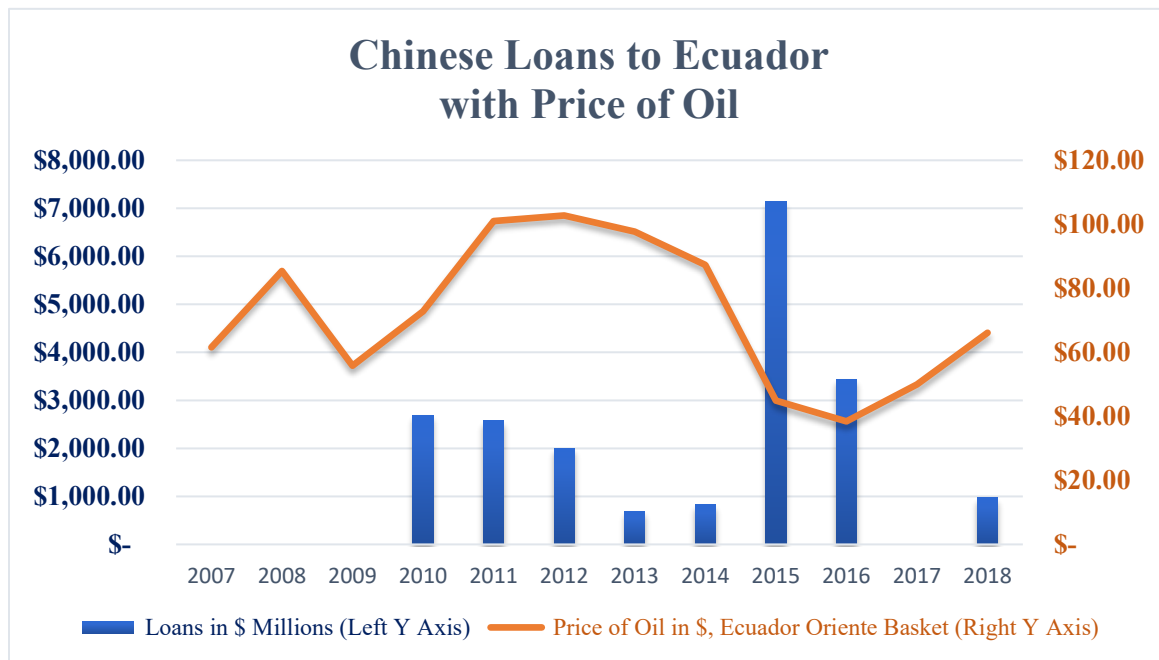
⁶⁸ Antulio Rosales, 87.

⁶⁹ “The Cost of Ecuador’s Surrender on Fuel Subsidies,” *The Economist*, October 17, 2019, <https://www.economist.com/the-americas/2019/10/17/the-cost-of-ecuadors-surrender-on-fuel-subsidies>.

⁷⁰ R. Evan Ellis, “Ecuador’s Leveraging of China to Pursue an Alternative Political and Development Path,” *Journal of Indo-Pacific Affairs*, Fall 2018: 81.

⁷¹ Garzón and Castro, “China-Ecuador Relations and the Development of the Hydro Sector,” 26.

to 2018, Ecuador borrowed an estimated \$20.3 billion from China, or more than \$1,100 per capita.⁷² Approximately 70% of Chinese loans have interest rates between 6 and 7.25%, compared to 2 to 4% given at many multilateral banks.⁷³ Figure 1 shows the distribution of Chinese loans from 2005–2018 relative to the price of Ecuadorian oil.⁷⁴



Chinese loans followed years of low oil prices, supplementing lost revenue. Correa took office in January 2007, Moreno in May 2017.

Figure 1. Chinese Loans to Ecuador and the Price of Oil in Ecuador.⁷⁵

⁷² Gallagher and Myers, “China-Latin America Finance Database,” June 10, 2019; Garzón and Castro, “China-Ecuador Relations and the Development of the Hydro Sector,” 24–30; “China Grants \$5.3 Billion Credit Line to Ecuador,” *Reuters*, January 6, 2015, <https://www.reuters.com/article/colombia-china-loans/china-grants-5-3-billion-credit-line-to-ecuador-idUSL1N0UL1NM20150106>. Other figures say \$18.4 billion, \$20.3 billion is my calculation from all sources and both Correa and Moreno. However, the lack of transparency and fine line between commercial and public debt loans makes the exact figure impossible to attain (See Garzón and Castro, pg.26).

⁷³ Garzón and Castro, “China-Ecuador Relations and the Development of the Hydro Sector,” 27.

⁷⁴ Gallagher and Myers, “China-Latin America Finance Database,” June 10, 2019; Garzón and Castro, “China-Ecuador Relations and the Development of the Hydro Sector,” 28–29; “Ecuador Crude Oil Prices” (CEIC), accessed March 16, 2020, <https://www.ceicdata.com/en/ecuador/crude-oil-prices>.

⁷⁵ Adapted from CEIC Data. Ceicdata.com

Figure 1 graphs oil prices and Chinese loans between 2008 and 2018. The left Y axis shows the U.S. dollar loan amount, and the right Y axis shows the yearly price in oil. The figure indicates that the Correa administration pursued Chinese loans as oil prices fell sharply in an effort to compensate for the losses in the oil market. After the 2008 default, Chinese development banks were some of the only investors willing to risk their capital in Ecuador. In June of 2010, Ecuador struck a deal with China for its first loan of \$1.68 billion.⁷⁶ For the next several years, Ecuador became even more dependent on Chinese trade and lending, plunging itself deeper into the resource curse. In the absence of oil revenues, the Correa government resorted to Chinese loans to weather the oil bust phases and used these loans, essentially, as a natural resource substitute. However, just as oil is an exhaustible resource, Chinese loans to Latin America are beginning to dry up due to a slowing Chinese economy and the logistical distances between the trading partners.⁷⁷ Therefore, future Ecuadorian leaders may find themselves in the same predicament as President Moreno, searching for acceptable austerity measures to stop the economic bleeding.

Deriving from the literature discussed in Chapter I on how the resource curse affects politics and socioeconomics, this chapter examines the five specific characteristics that are central to the discussion of resource wealth and Chinese loans to Ecuador: ineffective institutions, authoritarian tendencies, dependence on resource wealth and negative trade balances, high government spending, and misguided public works.

1. Characteristic 1: Ineffective Institutions

According to the hypothesis presented in Chapter I, the traits specific to Chinese loans may cause heavily centralized decision-making and increase corruption. Based on corruption data and evidence from the Correa administration, Chinese loans seemed to intensify these resource curse characteristics. Loan negotiations with China during Correa's presidency lacked transparency and conditionality, and the loans were managed

⁷⁶ Garzón and Castro, "China-Ecuador Relations and the Development of the Hydro Sector," 28.

⁷⁷ Margaret Myers, "The Reasons for China's Cooling Interest in Latin America," accessed May 3, 2019, <https://www.americasquarterly.org/content/how-beijing-sees-it>.

by Correa and a few trusted supporters.⁷⁸ Author Jonas Bunte interviewed several public debt officials in Ecuador that claimed the government typically received several competing credit offers from lenders that were willing to provide up to 85% of the funding for a given project, but that Chinese loans were typically chosen because the government could “use the loans in a way it would like.”⁷⁹ Bunte claimed that “the financial terms of the offer are not a major factor in this process,” adding that the loans were chosen by politicians and “not technocrats.”⁸⁰ Consequently, the decision-making process became more centralized, a trait susceptible to corruption in resource curse theory.

Ecuadorian author and politician César Montúfar argues that the Correa administration demonstrated institutionalized corruption, and he finds that Ecuador’s Comptroller Office notes 2,408 reports of “criminal responsibilities” during the Correa administration.⁸¹ Therefore, corruption was widespread and not limited to interactions with China. However, China’s role as Ecuador’s main lender facilitated the institutionalized corruption. Multilateral organizations, such as the IMF, grant loans based on the condition that a government limits corruption and practices good governance.⁸² Chinese loans to Ecuador did not have any governance-based conditionality attached. China routinely says that it does not interfere in the internal matters of other countries.⁸³ Loan details are consistently not published on government websites; instead, many figures are taken from local newspaper interviews with Ecuador’s finance ministers.⁸⁴

⁷⁸ Ellis, “Ecuador’s Leveraging of China to Pursue an Alternative Political and Development Path,” 81.

⁷⁹ Bunte, *Raise the Debt*, 98–100.

⁸⁰ Bunte, 105.

⁸¹ Francisco Sánchez and Simón Pachano, *Assessing the Left Turn in Ecuador* (Springer Nature, 2019), 67–68.

⁸² “IMF and Good Governance.”

⁸³ Trinkunas, “Renminbi Diplomacy? The Limits of China’s Influence on Latin America’s Domestic Politics,” 22.

⁸⁴ Kevin P. Gallagher, Amos Irwin, and Katherine Koleski, “The New Banks in Town: Chinese Finance in Latin America” (Inter-American Dialogue, February 15, 2012), 5, <https://www.thedialogue.org/analysis/the-new-banks-in-town-chinese-finance-in-latin-america/>.

Not only do Chinese loans produce the conditions for corruption, but Chinese companies have been implicated in corruption cases. In April of 2020, Correa was sentenced to eight years in prison and prohibited from running for office for 25 years.⁸⁵ The former president was convicted due to a scandal known as *Arroz Verde*.⁸⁶ The accusers alleged that Correa's political party, Alianza PAIS, received bribes from contracting companies. The scandal involved various companies, including Chinese contractors Sinohydro and China Gezhouba Group, both builders of hydroelectric facilities in Ecuador.⁸⁷ Correa delegated several Chinese loan contracts and all of the hydroelectric projects to his vice president, Jorge Glas.⁸⁸ Glas was also convicted in the new charges involving Chinese companies, and he had previously been found guilty of corruption and sentenced to six years in jail for receiving \$13.5 million in bribes from Brazilian construction giant Odebrecht after the Operation Car Wash investigation.⁸⁹ The lack of conditionality and magnitude of Chinese loans, along with corrupt practices from both Chinese contracting companies and Ecuadorian government officials, exacerbated the institutionalized corruption that occurred during the Correa administration.

Figures 2 and 3 map executive corruption and regime corruption in Ecuador using data from the V-Dem Institute. The executive corruption index proposes to answer this question: "How routinely do members of the executive, or their agents, grant favors in exchange for bribes, kickbacks, or other material inducements, and how often do they steal, embezzle, or misappropriate public funds or other state resources for personal or family

⁸⁵ José María León Cabrera, "Ecuador's Former President Convicted on Corruption Charges," *New York Times*, April 7, 2020, <https://www.nytimes.com/2020/04/07/world/americas/ecuador-correa-corruption-verdict.html>.

⁸⁶ "Rafael Correa in Court: Ecuador's Trial of the Century Opens," *The Economist*, February 6, 2020.

⁸⁷ "Fernando Villavicencio Afirma Que Hay Documentos Que Prueban que Rafael Correa Daba Órdenes a Exfuncionaria Procesada," *El Universo*, May 6, 2019, <https://www.eluniverso.com/noticias/2019/05/06/nota/7318496/fernando-villavicencio-afirma-que-hay-documentos-que-prueban-que>.

⁸⁸ Ellis, "Ecuador's Leveraging of China to Pursue an Alternative Political and Development Path," 81.

⁸⁹ "Ecuador VP Jorge Glas Sentenced for Corruption in Odebrecht Case," *British Broadcasting Corporation*, December 13, 2017, sec. Latin America, <https://www.bbc.com/news/world-latin-america-42346881>.

use?”⁹⁰ The regime corruption index asks, “To what extent do political actors use political office for private or political gain?”⁹¹ The data allows an evaluation of whether there were any changes in levels of corruption identified in the years after Chinese loans were adopted. Figure 2 shows that executive corruption increased starting in 2010 after the first loan and continued rising until Correa left office. In Figure 3, the heaviest loan years—2015 and 2016—were the most corrupt years. Additionally, executives and political actors maintained corruption levels when petroleum profits were at their lowest. Overall, the Correa administration appears to have sustained or even increased corrupt activity throughout the boom-and-bust cycles of petroleum, signifying that the inclusion of Chinese loans provided similar opportunities for corruption.

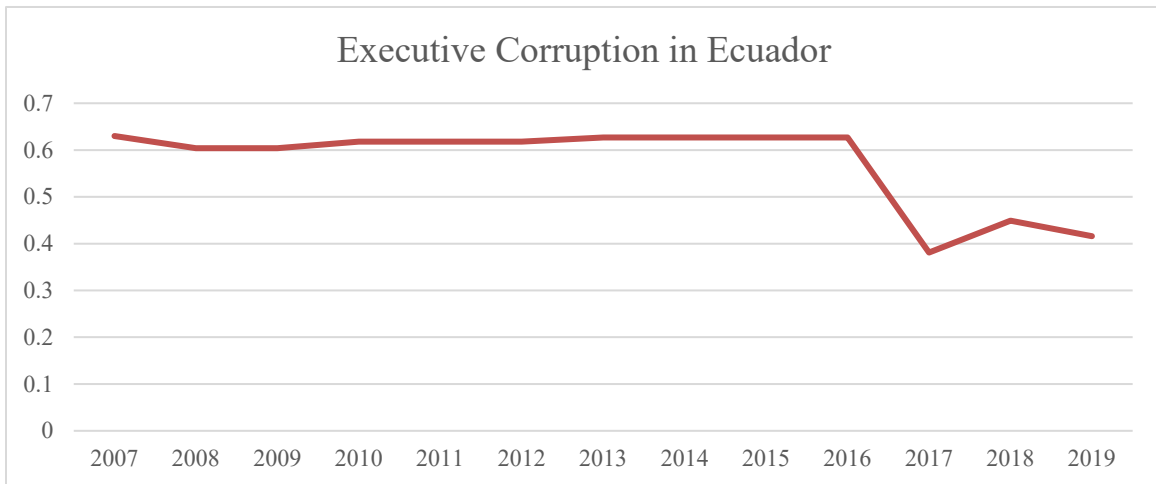


Figure 2. Executive Corruption in Ecuador from V-Dem Institute.⁹²

⁹⁰ Jan Teorell, “Executive Corruption Index” (Gothenburg, Sweden: Varieties of Democracy Institute), accessed April 30, 2020, <https://www.v-dem.net/en/>.

⁹¹ Rachel Sigman and Staffan Lindberg, “Regime Corruption Index” (Gothenburg, Sweden: Varieties of Democracy Institute), accessed April 30, 2020, <https://www.v-dem.net/en/>.

⁹²Source: Teorell, “Executive Corruption Index.”

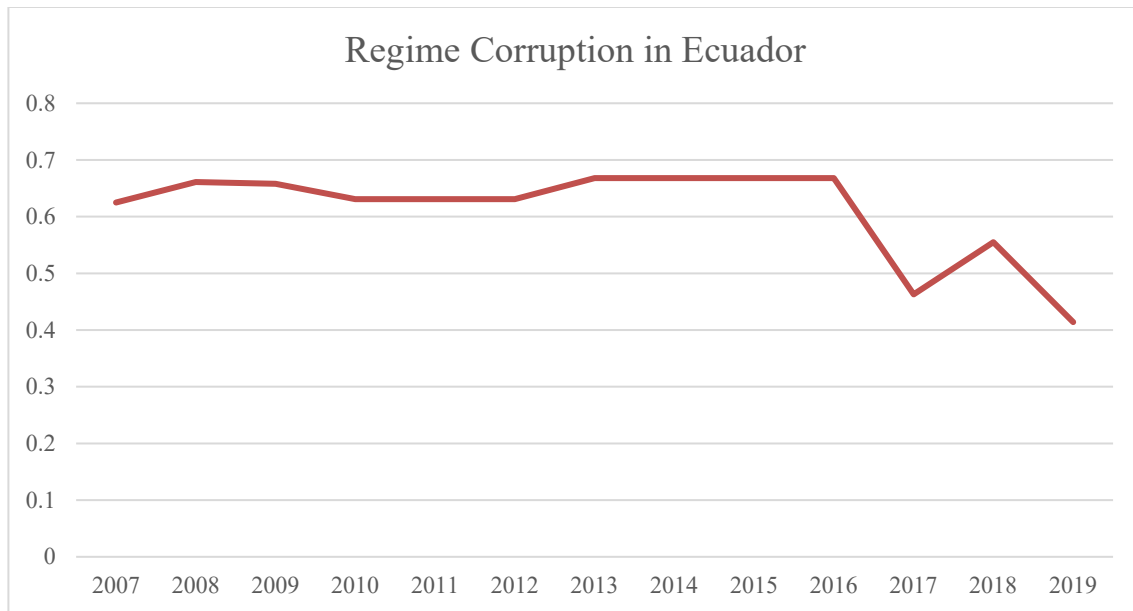


Figure 3. Regime Corruption in Ecuador from V-Dem Institute.⁹³

2. Characteristic 2: Authoritarian Tendencies

According to the theory explained in Chapter I, Chinese loans may act similarly to resource rents, and therefore the resource curse, by reducing accountability for authoritarian leaders and allowing said leaders to hinder democratization by oppressing dissent and opposition. Existing literature has found that, under Correa's government, Ecuador experienced a significant degree of autocratization. Figure 4 visualizes this autocratization process using the liberal democracy index calculated by the V-Dem Institute. While it is impossible to measure the direct relationship between Chinese loans and these autocratization tendencies, nonetheless, there are some indicators that point to the Correa administration's direct use of Chinese loans to strengthen Correa's hold on power both through increased corruption and through investments on intelligence technology. For instance, a Chinese loan of \$240 million was used to purchase and install

⁹³Source: Sigman and Lindberg, "Regime Corruption Index."

the ECU 911 surveillance system in 2011.⁹⁴ The new surveillance system feeds video from 4,300 cameras directly to 16 police monitoring centers and the National Intelligence Secretariat (SENAIN) headquarters.⁹⁵ Under Correa's leadership, the government installed the ECU 911 system with facial recognition capabilities, and the intelligence community was accused of planting cameras directly outside of political opponents' homes.⁹⁶ Ecuadorian and Chinese employees cooperate to run the ECU 911 headquarters in Quito, and around 20 Chinese engineers keep the system up and running.⁹⁷ Chinese media credits the ECU 911 for falling crime rates in Ecuador, but the success is controversial due to the system's features and questionable employment.⁹⁸

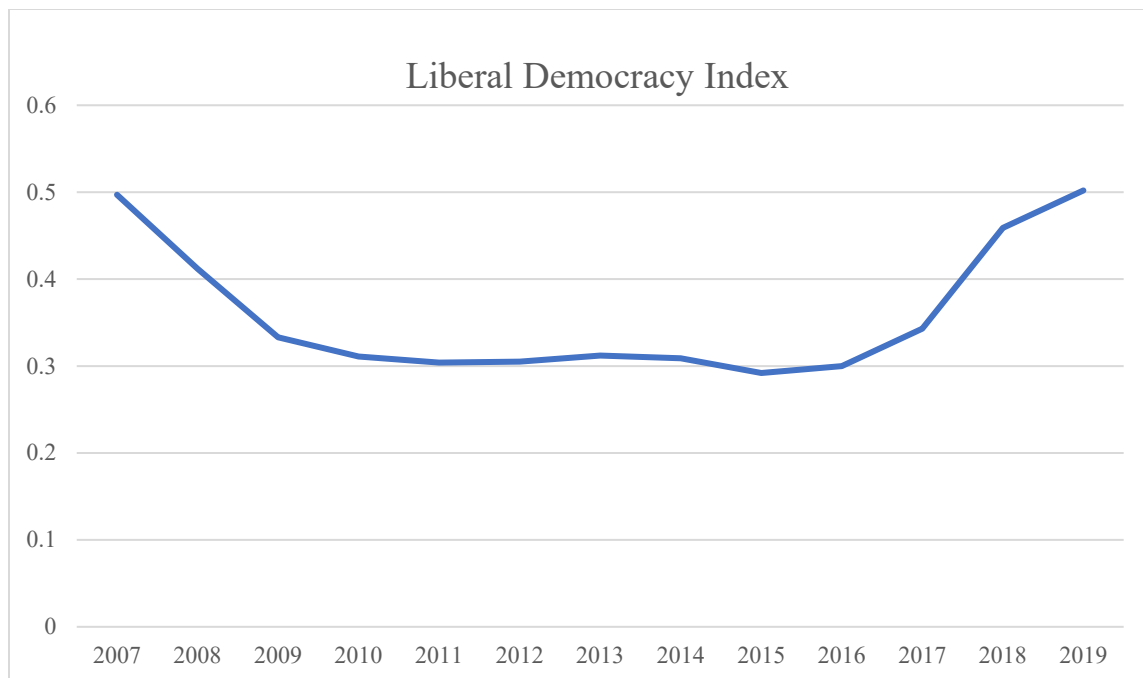
⁹⁴ Charles Rollet, "Ecuador's All-Seeing Eye Is Made in China," *Foreign Policy* (blog), accessed April 3, 2020, <https://foreignpolicy.com/2018/08/09/ecuadors-all-seeing-eye-is-made-in-china/>; Paul Mozur, Jonah M. Kessel, and Melissa Chan, "Made in China, Exported to the World: The Surveillance State," *The New York Times*, April 24, 2019, sec. Technology, <https://www.nytimes.com/2019/04/24/technology/ecuador-surveillance-cameras-police-government.html>.

⁹⁵ "How China Trains the World's Autocrats to Surveil Their People," *New York Times*, accessed April 3, 2020, <https://www.youtube.com/watch?v=p8WAlFatAqw>; Mozur, Kessel, and Chan, "Made in China, Exported to the World: The Surveillance State."

⁹⁶ Rollet, "Ecuador's All-Seeing Eye Is Made in China"; "How China Trains the World's Autocrats to Surveil Their People."

⁹⁷ Charles Rollet, "Chinese Government Builds Far-Reaching, Allegedly Corrupt, Surveillance System in Ecuador," *IPVM*, March 13, 2018, <https://ipvm.com/reports/china-ecuador>.

⁹⁸ "Feature: Chinese Technology Brings Falling Crime Rate to Ecuador - Xinhua | English.News.Cn," accessed April 6, 2020, http://www.xinhuanet.com/english/2018-01/19/c_136908255.htm.



The Liberal Democracy Index for Ecuador shows autocratization during the Correa administration and especially during Chinese loan years.

Figure 4. Ecuador: The Liberal Democracy Index ⁹⁹

Beyond this, the process of autocratization was further enabled by the conditions of the loan agreements. China offered grace periods for several of the loans that Ecuador took during the Correa government. This meant that the Correa administration could pay interest only and leave the bulk of the debt burden to Correa's successor, likely generating the conditions for economic crisis and setting the stage for eroding the legitimacy of any political actor that followed.

When President Moreno entered office in May of 2017, he found that he had inherited at least \$8 billion of Chinese debt in addition to a commitment to ship 90% of all crude oil to China through 2024 as a part of Correa's loan-for-oil deals.¹⁰⁰ Figure 5 shows

⁹⁹ Source: Jan Teorell, "Liberal Democracy Index" (Gothenburg, Sweden: Varieties of Democracy Institute), accessed April 30, 2020, <https://www.v-dem.net/en/>.

¹⁰⁰ Chris Kraul, "Ecuador Faces a Huge Budget Deficit Because of Loans It Received from China," *Los Angeles Times*, December 10, 2018, <https://www.latimes.com/world/la-fg-ecuador-loans-china-20181210-story.html>; Garzón and Castro, "China-Ecuador Relations and the Development of the Hydro Sector," 27.

the distribution of payment periods for all Chinese loans and shows that Correa was able to saddle Moreno with the biggest portion of the debt. Moreno, who was also Correa's vice president from 2007–2013, supposedly did not know how much oil Correa had committed to China.¹⁰¹ Vicente Albornoz, the dean of economics at the University of the Americas in Quito remarked, "Correa thought he was a genius and he has escaped accountability by giving the problem to someone else."¹⁰² When Chinese loans dried up, Moreno was forced into austerity measures to receive lending from the IMF. Unfortunately, a reduced tolerance for austerity in the civilian population is a characteristic of the resource curse, and Moreno's approval rating fell to less than 20%.¹⁰³ This leaves the door open for Correa if he can successfully appeal his recent conviction and prohibition from running for public office. In 2018, Ecuador passed a referendum under Moreno that brought back presidential term limits after Correa eliminated them in 2015.¹⁰⁴ However, the former president still expresses interest in returning to politics in Ecuador, possibly even as vice president, a feat fellow leftist President Cristina Fernández de Kirchner achieved in Argentina.¹⁰⁵ If Correa or his new political party the Movimiento Revolución Ciudadana are able to return to power in future elections, Ecuador's debts to China and the resulting austerity measures may be the cause.

¹⁰¹ June S. Beittel, "Ecuador: In Brief" (Washington, DC: Congressional Research Service, February 13, 2018), 8.

¹⁰² Christ Kraul, "Ecuador Faces a Huge Budget Deficit Because of Loans It Received from China."

¹⁰³ Terry Lynn Karl, "The Perils of the Petro-State: Reflections on the Paradox of Plenty," *Journal of International Affairs* 53, no. 1 (1999): 35; Correa, "Ecuador's Trial of the Century Opens."

¹⁰⁴ Maggy Ayala and Marcelo Rochabrún, "Ecuador Votes to Bring Back Presidential Term Limits," *The New York Times*, February 4, 2018, sec. World, <https://www.nytimes.com/2018/02/04/world/americas/ecuador-presidential-term-limits.html>.

¹⁰⁵ Javier Lafuente, "'Si es Necesario me Presentaré, Pero Pasará lo Mismo que con Lula,'" *El País*, November 9, 2019, sec. Internacional, https://elpais.com/internacional/2019/11/08/actualidad/1573233270_699125.html.

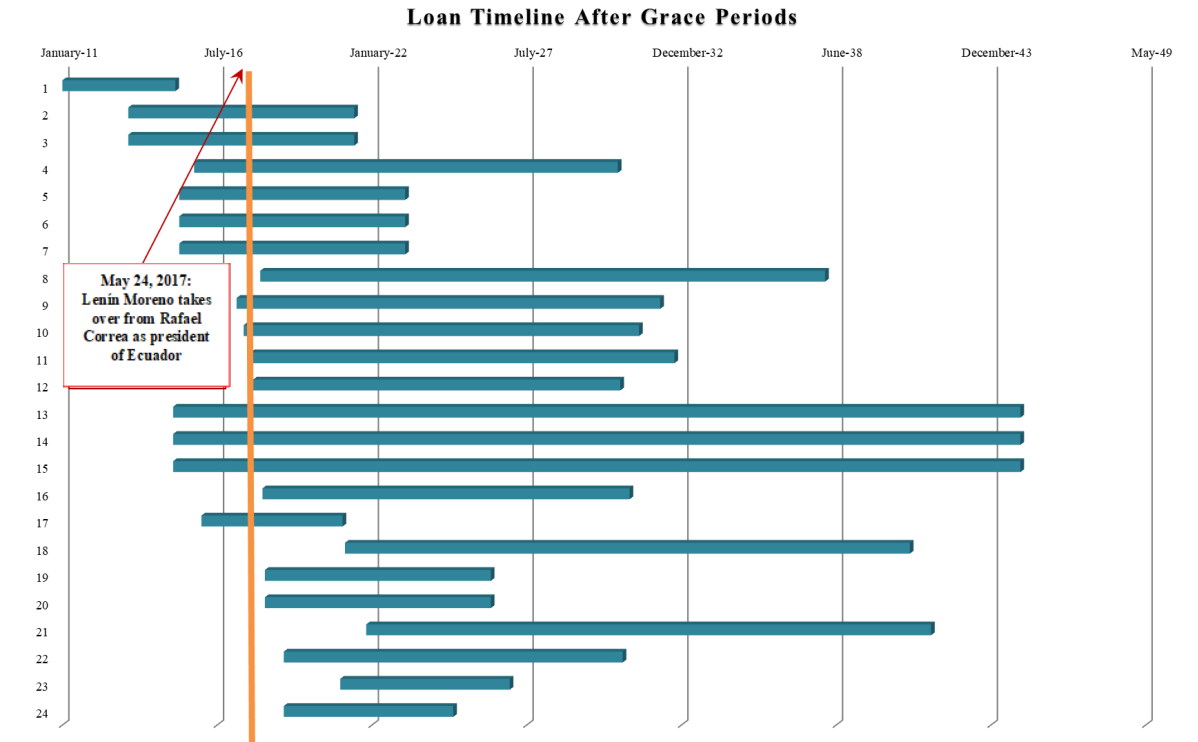


Figure 5. The Moreno Administration is Left With a Heavy Debt Burden.
Author's Elaboration.

Overall, Chinese loans funded a surveillance system and helped export China's authoritarian-like execution of the system. Additionally, the loans gave Correa a political advantage by saddling his political opponents with debt and unpopular austerity measures. Correa used the nontax revenue from China to suppress his political opponents and avoid accountability.

3. Characteristic 3: Dependence on Resource Wealth and Negative Trade Balance

If Chinese loans exacerbated the resource curse in Ecuador, the expectation is that Ecuador overinvested in its resource industry and neglected domestic value-added manufacturing. It is also expected that the loans produced dependence on China and an unbalanced trading relationship with China. Figures 6 and 7 show that Ecuador did indeed increase energy production for both petroleum and natural gas. Beginning in 2010 and coinciding with the Chinese loans, Ecuador ramped up its extraction of petroleum and

natural gas after a lull in the beginning of Correa's presidency. Figure 8 shows that the Correa administration relied less on tax income while government expenditures skyrocketed during the second hydrocarbon boom from 2011–2014. Direct taxes such as income tax were particularly stagnant throughout Correa's presidency. This indicates that the Correa administration became more dependent on resource rents to fund Ecuador's expanding budget.

Figure 8 also shows a continual rise in government spending through the first hydrocarbon price drop in 2009. This is particularly significant because Ecuador received \$11.5 billion in oil rents in 2009, but only \$6.1 billion in 2010 when the price drop took full effect. While profits fell in Ecuador, China's energy consumption soared and its construction capacity overflowed into several states with infrastructure needs. Over the next four years, Ecuador filled its investment gap with more than \$6 billion of Chinese loans that were invested directly into energy projects built mostly with Chinese construction.¹⁰⁶ Altogether, \$7 billion was designated for loan-for-oil contracts with China.¹⁰⁷ Due to these loans, Ecuador was still able to heavily invest in energy despite an economic lull and without the technological ability to execute many of the projects. Meanwhile, the government sold future resource production in the form of loan-for-oil deals, falling deeper into dependence on the future of the energy sector.

¹⁰⁶ Gallagher and Myers, "China-Latin America Finance Database," June 10, 2019.

¹⁰⁷ Gallagher and Myers; Eugene Gholz, Umul Awan, and Ehud Ronn, "Financial and Energy Security Analysis of China's Loan-for-Oil Deals," *Energy Research & Social Science* 24 (2017): 45, <https://doi.org/10.1016/j.erss.2016.12.021>. These amounts overlap by \$3 billion.

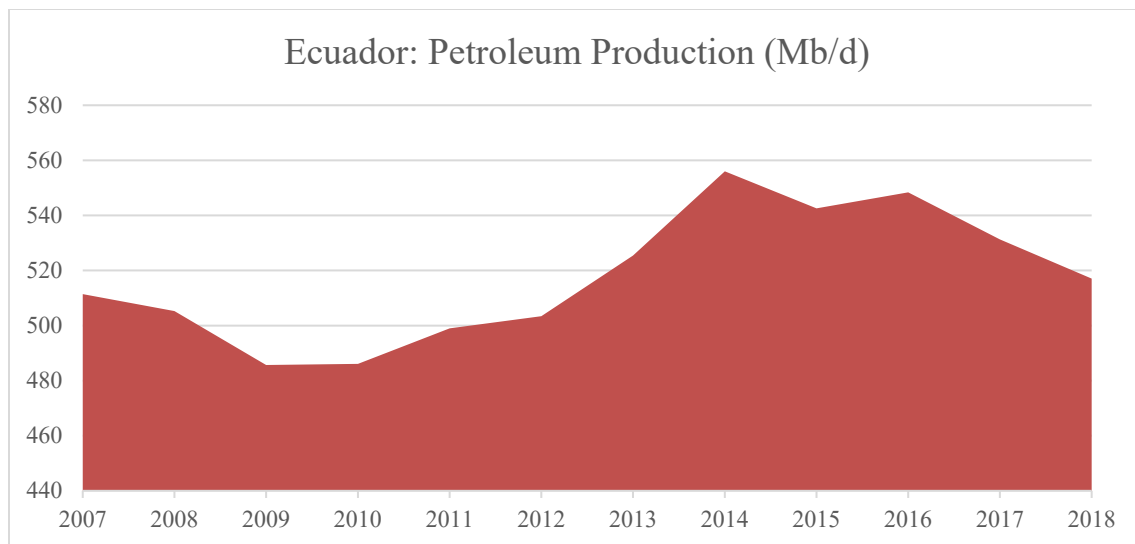


Figure 6. Ecuador's Production of Petroleum in Millions of barrels/day.¹⁰⁸

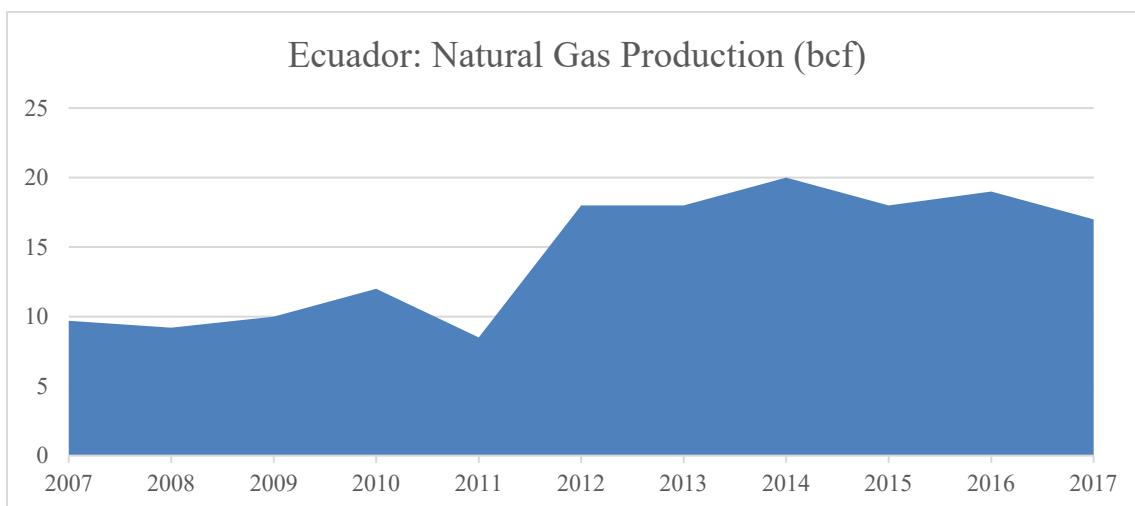


Figure 7. Ecuador's Production of Natural Gas in billions of cubic feet.¹⁰⁹

¹⁰⁸ Source: Ecuador. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

¹⁰⁹ Source: Ecuador. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

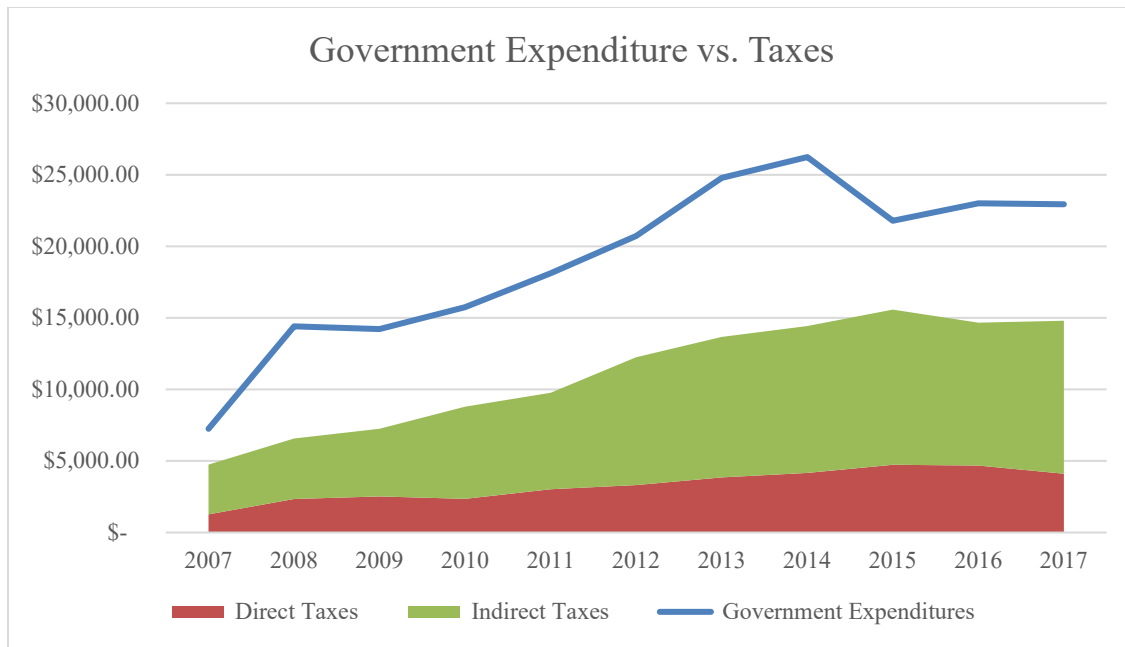


Figure 8. Ecuador's Government Expenditure Compared to Direct and Indirect Taxes.¹¹⁰

Since 2000, Ecuador has used the U.S. dollar, a currency that has continually increased in value relative to other world currencies. The IMF explains that formal dollarization is a trade-off. Ecuador is better protected against unstable inflation and interest rates, but the regime lacks flexibility and the ability to respond to shocks to the economy.¹¹¹ Due to Ecuador's strong currency, the country's exports are relatively more expensive and therefore less attractive than competing countries' exports. In addition to a strong dollar, demand for raw resources from China has caused export *primarization* in many Latin American countries.¹¹² *Primarization* occurs when a country relies on primary goods such as crude oil rather than manufacturing value-added products. To add to this unbalance, loans from China included obligations to use Chinese contractors, and therefore Ecuador did not receive a technology transfer that could have boosted its manufacturing.

¹¹⁰ Adapted from International Centre for Tax and Development. <https://www.ictd.ac/>. CEIC Data. Ceicdata.com.

¹¹¹ "Ecuador: Selected Issues," Country Report (Washington, DC: International Monetary Fund, March 2006), 4.

¹¹² "Congressional Testimony."

Partially due to these factors, Ecuador's manufacturing stagnated around 14% of GDP from 2005–2019.¹¹³ Moreover, Ecuador's agricultural shipments to China are typically undercut by China's neighbors that do not have heavy transportation costs to overcome.¹¹⁴ The result was a heavy trade deficit with China that pushed Ecuador into several years of overall trade deficits. This effect is seen in Figures 9 and 10. In Figure 9, China's exports destined for Ecuador tripled from 2009 to 2014 while Ecuador's exports to China did not significantly increase until Correa left office in 2017. The overall effect of primarization and unbalanced trade with China is seen in Figure 10. Even during the hydrocarbon boom from late 2010 to 2014, Ecuador's overall trade balance was a deficit.

In summary, traditional Chinese loans and loans for oil allowed Ecuador to heavily invest in the energy sector even when hydrocarbon prices were down, exacerbating dependence on resource wealth. Dependence on resource wealth combined with dependence on Chinese loans, Chinese construction, and Chinese manufacturing, stunted the growth of value-added manufacturing in Ecuador. The overall result was less competitive Ecuadorian exports and several years with overall trade deficits.

¹¹³ CEIC Data. Ceicdata.com.

¹¹⁴ Ellis, "Ecuador's Leveraging of China to Pursue an Alternative Political and Development Path," 90–91.

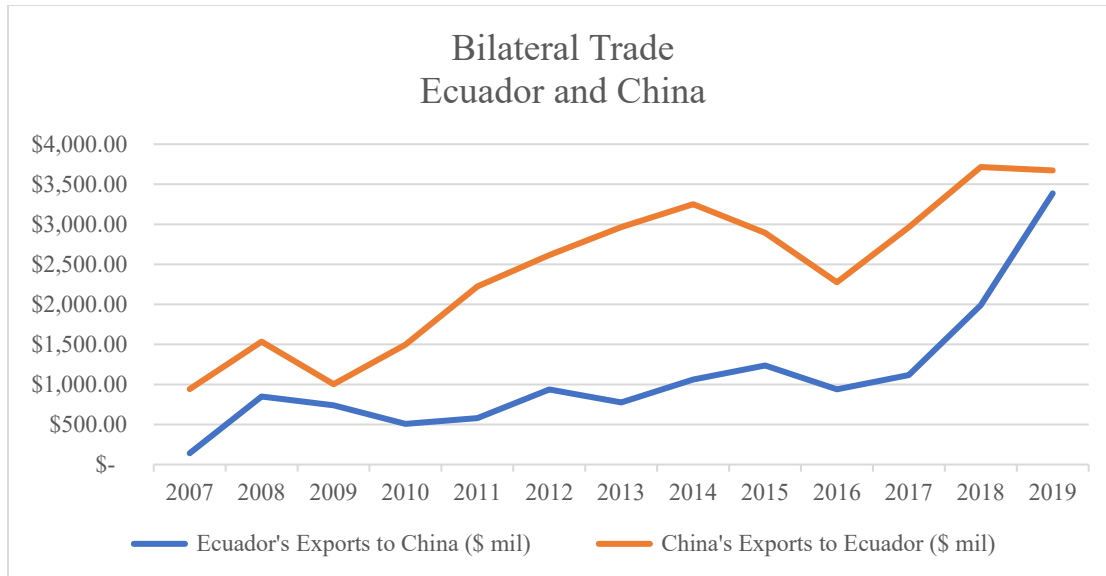
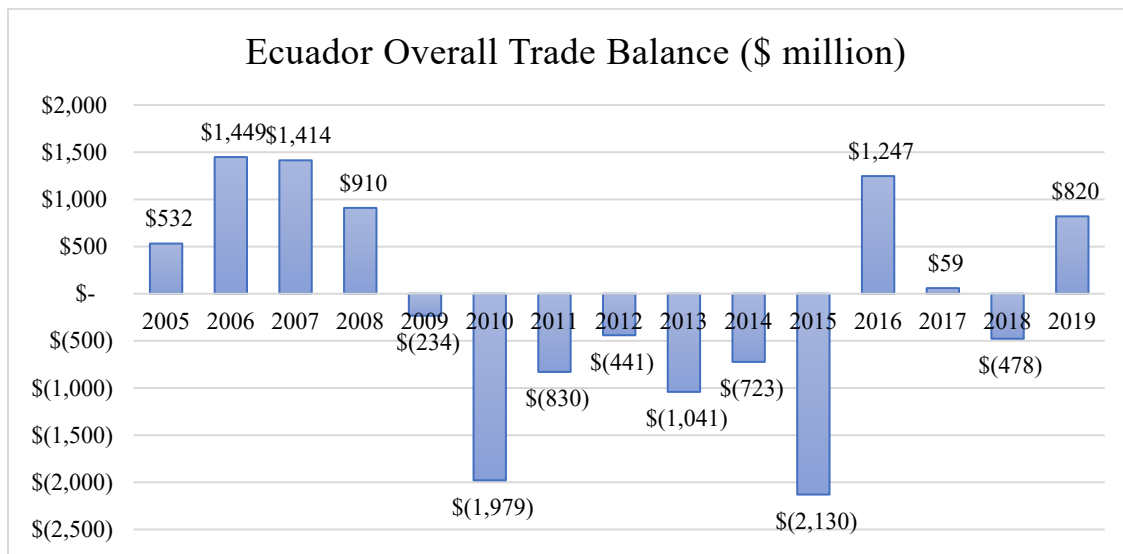


Figure 9. Bilateral Trade between Ecuador and China.¹¹⁵



Ecuador's trade balance suffered even with high oil prices from 2011–2014. Loans from China began in 2010

Figure 10. Ecuador's Overall Trade Deficit.¹¹⁶

¹¹⁵ Adapted from CEIC Data. Ceicdata.com.

¹¹⁶ Adapted from CEIC Data. Ceicdata.com.

4. Characteristic 4: High Government Spending

If Chinese loans exacerbate the resource curse, it is expected that Chinese lending reduces incentives to save and allows Ecuador to maintain high government expenditures through the boom-and-bust of the resource market. As seen previously in Figure 8, the trademark of the populist Correa administration was high government spending. In the beginning of Correa's presidency, social spending was sorely needed. In 2006, a year before Correa took office, social spending was 4.3% of GDP, far less than the 9 percent average in Latin America.¹¹⁷ However, Ecuador soon kept pace with the rest of Latin America. As the GDP rose steadily, the size of the public sector increased dramatically, jumping from 25 to 44% of GDP.¹¹⁸ Social spending quadrupled during Correa's presidency, and the former president maintained this budget through two hydrocarbon bust phases by borrowing \$12 billion in Chinese loans specifically earmarked to cover budget deficits.¹¹⁹ Meanwhile, poverty and inequality levels improved due to several years of high government spending.

Despite record low numbers for poverty and inequality, Ecuador's government did not build the economy to sustain commodity busts. Four years after the peak in 2014, Ecuador's GDP per capita had declined more than 4%. A report from the United Nations University claims that the improvements during the commodity boom are unsustainable and will be reversed unless there is a substantial increase in the price of oil.¹²⁰ Poverty has slightly risen since reaching a low in 2014.¹²¹ Likewise, Ecuador's GINI index and the

¹¹⁷ "Ecuador: Portal de Inversión Social," Text, CEPAL Desarrollo Social, May 8, 2017, <https://observatoriosocial.cepal.org/inversion/es/paises/bolivia>.

¹¹⁸ Sánchez and Pachano, *Assessing the Left Turn in Ecuador*, 165.

¹¹⁹ Calculated from Garzón and Castro, "China-Ecuador Relations and the Development of the Hydro Sector," 28–29; Gallagher and Myers, "China-Latin America Finance Database."

¹²⁰ Iván Gachet et al., "Vertical and Horizontal Inequality in Ecuador: The Lack of Sustainability," WIDER Working Paper (United Nations World Institute for Development Economics Research: Helsinki, Finland, 2016), 1–2.

¹²¹ World Bank, "Poverty Gap at \$5.50 a Day (2011 PPP) (%) - Ecuador," The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

wealth held by the poorest 10% of the population have both decreased since 2014.¹²² *The Economist* estimated in 2014 that Ecuador's government needed the price of oil to be more than \$120 a barrel to sustain its budget.¹²³ That same year oil prices were cut in half to less than \$60 a barrel, and the lower valuation became the trend for the rest of the decade. Thus, Chinese loans enabled Correa to maintain unsustainable populist spending in Ecuador despite two bust phases, jeopardizing Ecuador's socioeconomic gains from the boom phases and amplifying the effects of the resource curse.

The hollow center of Ecuador's artificially strong economy was the lack of liquid fiscal buffers. In other words, the Correa administration did not save money while oil prices were high. Figure 11 graphs Ecuador's total reserves as a percentage of total external debt. As seen in the figure, Ecuador's total reserves in relation to debt dropped considerably during Correa's presidency. Instead of saving for potential busts, the administration increased spending. In 2008, the administration dissolved the country's economic stabilization funds and transferred the money—about 2.3% GDP—to the spending accounts of the Treasury.¹²⁴ As oil prices fell less than two years later, Ecuador received its first loan from Chinese Development Banks. To begin operations on the Coca Codo Sinclair dam, Ecuador borrowed \$1.68 billion from the China Ex-Im Bank at 6.9%, an interest rate 2% higher than the U.S. Ex-Im rates for Ecuador at the time.¹²⁵ Although Ecuador's savings rate actually increased during Correa's presidency, the savings were mainly reinvested into energy and infrastructure, which are illiquid assets.¹²⁶ Instead of saving Ecuador's windfalls during the oil boom, the Correa administration relied on Chinese loans to bail out Ecuador's economy during shocks in the market.

¹²² World Bank, "GINI Index (World Bank Estimate) - Ecuador," The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>; World Bank, "Income Share Held by Lowest 10% - Ecuador," The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

¹²³ "Winners and Losers," *The Economist*, accessed May 3, 2020, <https://www.economist.com/international/2014/10/25/winners-and-losers>.

¹²⁴ Sánchez and Pachano, *Assessing the Left Turn in Ecuador*, 188.

¹²⁵ Gallagher, Irwin, and Koleski, "The New Banks in Town: Chinese Finance in Latin America," 13.

¹²⁶ Sánchez and Pachano, *Assessing the Left Turn in Ecuador*, 189.

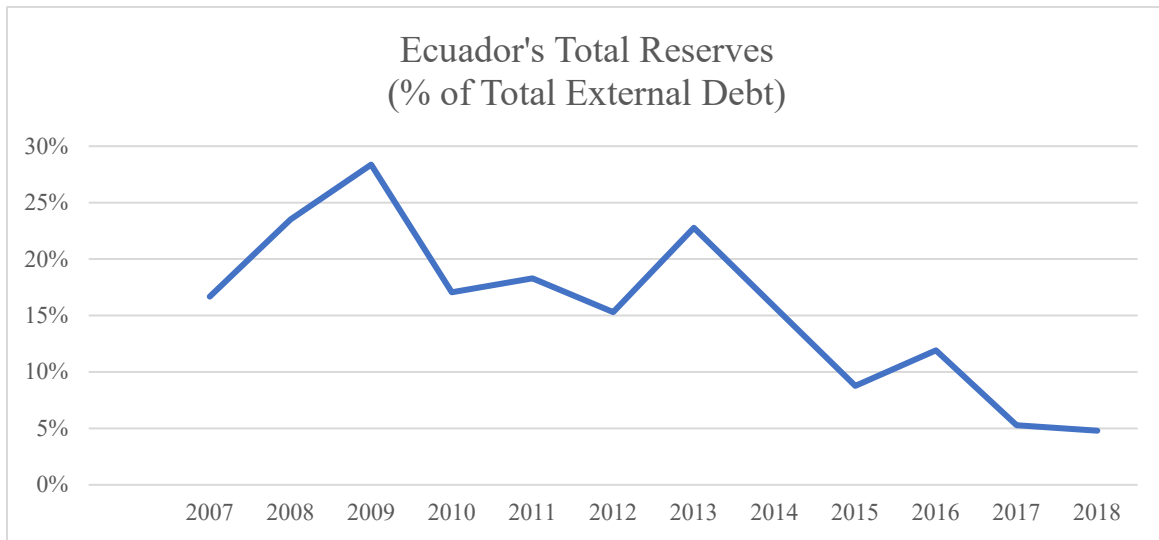


Figure 11. Ecuador's Reserves in Decline during Correa's Presidency.¹²⁷

In summary, the Correa administration benefited from a booming oil market and brought social spending to more normal levels. However, the Ecuadorian economy was fragile at the core because Correa neglected savings. The government increased savings too quickly and did not plan for a price drop in the oil market. Chinese loans allowed Ecuador to drastically increase its budget, and then maintain that budget without vital savings, intensifying the resource curse by removing the incentives of frugality.

5. Characteristic 5: Misguided Public Works

In accordance with the hypothesis, it is expected that Chinese loans increase white elephant projects and incomplete projects because the loans provide large sums of money, but future Chinese investments are not guaranteed. This resource curse characteristic is detrimental to a country because political projects are chosen without discernment. The evidence shows that Ecuador initiated several controversial projects during the Correa administration, and China funded or built many of them.

¹²⁷ Adapted from CEIC Data. Ceicdata.com.

To become less dependent on imported refined oil, Correa began development on a \$12 billion, 300,000-barrel-a-day refinery named the Refinery of the Pacific.¹²⁸ Since Ecuador currently imports some refined hydrocarbon products, the new project would help Ecuador increase domestic refining. However, many criticized the chosen location of the refinery and the high price tag. Correa chose the region of Manabí—the third most populated in Ecuador—arguably for political purposes. The nearby port in Manta was not capable of handling the capacity at the time, and the nearest crude oil pipeline was over 250 kilometers away.¹²⁹ Additionally, critics and competitors balked at the size of the project, even at the original price tag of \$6 billion. The president of Peru’s state-owned oil company claimed that “getting \$1 billion in financing for [Peru’s refinery] Talara has been a heroic task. I really do not see where Ecuador will raise \$6 billion. This seems impossible today.”¹³⁰ The project began without Chinese involvement, but a CDB and Chinese petroleum company signed a contract to complete the project and gain operational control.¹³¹ China signed a financing agreement totaling \$7 billion, with the rest expected to come from Venezuela and Petroecuador.¹³² However, China later pulled out of the contract. President Moreno recently decided to scrap the project and liquidate the assets to regain some of the \$1.53 billion initially invested.¹³³

Another controversial Ecuadorian investment was the development of Ecuador’s hydroelectric sector. Seven of the eight major hydroelectric projects were built by Chinese contractors, and six were financed by Chinese banks.¹³⁴ Altogether the projects are

¹²⁸ “Ecuador’s Refinery Dream Seems More of a Fantasy: Fuel for Thought - Platts Insight,” accessed March 21, 2020, <https://blogs.platts.com/2016/02/15/ecuadors-refinery-dream-fuel-for-thought/>.

¹²⁹ “Ecuador’s Refinery Dream Seems More of a Fantasy: Fuel for Thought - Platts Insight.”

¹³⁰ Lucien Chauvin, “Manta Takes on Peru,” *LatinFinance*, 2008.

¹³¹ “Ecuador’s Refinery Dream Seems More of a Fantasy: Fuel for Thought - Platts Insight”; R. Evan Ellis, “China’s Role in Ecuador’s Oil Sector,” *The Dialogue*, January 23, 2014, <https://www.thedialogue.org/blogs/2014/01/chinas-role-in-ecuadors-oil-sector/>.

¹³² “Ecuador Infrastructure Report - Q4 2016” (London, United Kingdom: Business Monitor International Ltd, 2016), 25.

¹³³ “BNamericas - Spotlight: Ecuador’s Pacífico Refinery Proje..,” BNamericas.com, accessed March 21, 2020, <https://www.bnamericas.com/en/news/spotlight-ecuadors-pacifico-refinery-project-revisited>.

¹³⁴ Garzón and Castro, “China-Ecuador Relations and the Development of the Hydro Sector,” 36.

projected to cost over \$5.8 billion and be 15% over budget.¹³⁵ Critics say the hydroelectric plants will produce an excess amount of electricity with no export customers, and that the proposed hydroelectric plants harm the environment by altering the flow of rivers and contaminating the water for citizens downstream.¹³⁶ Additionally, critics contend that the funds could have been used to finance genuinely clean energy projects, such as wind or solar farms.

Ecuador's biggest hydroelectric project, the Coca Codo Sinclair dam, is perhaps the most controversial. The site chosen had been rejected by previous governments because it was near the base of a volcano and considered a risk for earthquake damage.¹³⁷ The hydroelectric project was built and financed by China and projected to finish in 2014, but actually completed in 2016. Since completion, dam operators have experienced major issues. The New York Times reported in 2018 that the dam was operating at only half capacity, saying "thousands of cracks are splintering the dam's machinery." Its reservoir is clogged with silt, sand and trees. And the only time engineers tried to throttle up the facility completely, it shook violently and shorted out the national electricity grid.¹³⁸ Some reports now say that the dam may have caused the disappearance of Ecuador's largest waterfall.¹³⁹ Overall, considering the Coca Codo Sinclair dam was "the largest investment in the country's history" according to the Ecuadorian government, the results have been disappointing.¹⁴⁰

¹³⁵ Garzón and Castro, 36–37.

¹³⁶ Garzón and Castro, 35–37.

¹³⁷ Clifford Krauss and Keith Bradsher, "China's Global Ambitions, Cash and Strings Attached," *The New York Times*, July 24, 2015, <https://www.nytimes.com/2015/07/26/business/international/chinas-global-ambitions-with-loans-and-strings-attached.html>

¹³⁸ Nicholas Casey and Clifford Krauss, "It Doesn't Matter If Ecuador Can Afford This Dam. China Still Gets Paid," *The New York Times*, December 24, 2018, <https://www.nytimes.com/2018/12/24/world/americas/ecuador-china-dam.html>.

¹³⁹ "The Disappearance of Ecuador's Tallest Waterfall," Text.Article, Nasa Earth Observatory (NASA Earth Observatory, March 27, 2020), <https://earthobservatory.nasa.gov/images/146502/the-disappearance-of-ecuadors-tallest-waterfall>.

¹⁴⁰ Garzón and Castro, "China-Ecuador Relations and the Development of the Hydro Sector," 39.

In summary, the scale and amount of the controversial energy projects would not have been possible without financing and expertise from China. Due to the availability of massive loans from China and the help of Chinese construction firms, the Correa administration did not have to conservatively plan public works. Therefore, the projects may have been well-meaning, albeit political, but the proposed scale and execution of the projects was misguided. Overall, the evidence indicates that China's involvement in Ecuador exacerbated the selection of misguided public works.

D. CONCLUSION

In summary, this chapter finds that loans from Chinese development banks exacerbated the resource curse in Ecuador. President Correa and his administration were responsible for the shortsighted economic and political missteps with Ecuador's oil wealth, but Chinese capital added fuel to the fire. This is not the first time Ecuador has suffered from the resource curse, but lending from China added an extra element. Chinese loans are unique because they are opaque, high interest, and lack the conditionality of multilateral loans. These factors permitted centralized decision-making, more corruption, and allowed Correa to oppress political opponents. The loans also helped build an Ecuadorian economy that became more dependent on energy and high social spending. Additionally, Ecuador became more dependent on China itself. Finally, Chinese lending allowed the Correa administration to incautiously spend on large public works because lending was consistently available. However, China's economy is slowing and the loans are drying up. President Moreno may have to look elsewhere for loans in the future while hoping that austerity measures do not bring back populism.

III. HOW BOLIVIA MITIGATED THE RESOURCE CURSE

A. INTRODUCTION

In November of 2019, President Evo Morales stepped down from power at the military's request after almost 14 years as president of Bolivia. Morales fled to Mexico and was eventually granted asylum in Argentina.¹⁴¹ When the interim government took over on November 12, they inherited one of the healthiest economies in the region. Under Evo Morales, Bolivia's poverty and inequality figures were slashed. Bolivia's poverty gap at \$5.50 a day fell from 27.5% in 2005 to 9.3 in 2018.¹⁴² Bolivia's GDP per capita more than tripled in 14 years.¹⁴³ The poorest 10% of the Bolivian population tripled their share of income, while the top 10% relinquished a third of their share.¹⁴⁴ Bolivia's GINI index—a measure of inequality based on distribution of income—fell 15% during the same period.¹⁴⁵ During this time frame, Bolivia outpaced its neighbors in the region. Bolivia's real per capita GDP grew at twice the rate of the LAC region.¹⁴⁶ Furthermore, even after the commodity prices dipped in the last five years of Morales's presidency, Bolivia achieved the highest per capita growth in South America.¹⁴⁷ Bolivia was especially outperforming its ALBA allies, who became highly indebted to China. Politically, Bolivia

¹⁴¹ “Evo Morales Llegó a la Argentina y el Gobierno lo Aceptará como ‘Refugiado,’” *La Prensa*, December 12, 2019, <http://www.laprensa.com.ar/483853-Evo-Morales-llego-a-la-Argentina-y-el-Gobierno-lo-aceptara-como-refugiado.note.aspx>.

¹⁴² World Bank, “Poverty Gap at \$5.50 a Day (2011 PPP) (%) - Ecuador.”

¹⁴³ World Bank, “GDP per Capita, PPP (Current International \$) - Bolivia,” The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

¹⁴⁴ World Bank, “Income Share Held by Lowest 10% - Ecuador”; World Bank, “Income Share Held by Lowest 10% - Bolivia,” The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

¹⁴⁵ World Bank, “GINI Index (World Bank Estimate) - Ecuador.”

¹⁴⁶ Andrew Bunker et al., “Bolivia's Economic Transformation: Macroeconomic Policies, Institutional Changes and Results,” Center for Economic and Policy Research (blog), October 17, 2019, 1, <https://cepr.net/report/bolivia-s-economic-transformation-macroeconomic-policies-institutional-changes-and-results/>.

¹⁴⁷ Bunker et al., 1.

was reeling, but economically, it was experiencing a steady, sustainable growth. How did Bolivia maintain economic growth while other countries stagnated or crashed?

Overall, Bolivia was able to mitigate the resource curse with conservative macroeconomic policies. Bolivia rode out the commodity bust due to economic decentralization, high savings, a high performing energy sector, relatively low spending, and low foreign debt. Bolivia benefited greatly from the nationalization of its hydrocarbon sector and the boom that followed. However, the government of Bolivia capitalized on the windfall with strong policy decisions and cautious investing.

B. THE HISTORY OF THE RESOURCE CURSE IN BOLIVIA

Beginning with the Spanish mining of silver in Potosí, single commodities have dominated the history of Bolivia's economy. The Spanish crown mined the region during colonial times and shipped silver back to the Iberian Peninsula. Tin replaced silver as the major extractive resource, and the new Bolivian government was eventually dominated by three tin-mining families.¹⁴⁸ After the collapse of the international tin market in the 1980s, natural gas took over as Bolivia's top export and became the centerpiece of the Bolivian economy.¹⁴⁹ Each one of these natural resources plagued Bolivia with the resource curse. Profits were siphoned off by political elites, the public sector swelled to unsustainable budgets, and the Bolivian economy crashed each time a commodity tanked.

Bolivia alternated between periods of privatization and nationalization of its natural resources. During the revolution of 1952, the Nationalist Revolutionary Movement (MNR) overthrew the established elites and nationalized Bolivian tin.¹⁵⁰ However, over the next decade, the MNR slowly rolled back resource nationalism and partially privatized both the hydrocarbon and mining industries.¹⁵¹ The MNR intended to diversify and industrialize

¹⁴⁸ Rex A Hudson et al., *Bolivia: A Country Study* (Washington, DC: Federal Research Division, Library of Congress, 1991), 101, <https://www.loc.gov/item/90026427/>.

¹⁴⁹ Hudson et al., 101.

¹⁵⁰ Hudson et al., 101.

¹⁵¹ Kevin A. Young, *Blood of the Earth: Resource Nationalism, Revolution, and Empire in Bolivia* (University of Texas Press, 2017), 69.

the economy, but by 1970, minerals still formed 91% of the Bolivian economy.¹⁵² The Bolivian military took over in the 1970s and used external development financing for Bolivia's natural resource industries, producing unsustainable debt servicing in the 1980s.¹⁵³ Eventually, Bolivia returned to democratic rule and resorted to an IMF-backed stabilization plan while fully privatizing its mining industry.¹⁵⁴

Bolivia privatized much of the hydrocarbon industry held by the state-owned company Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) in 1996, and lowered royalties to increase new discovery.¹⁵⁵ Several major discoveries followed, and gas reserves jumped 350% from 2000 to 2005 and propelled Bolivia to the second-highest level of reserves behind Venezuela.¹⁵⁶ Additionally, Brazil became a major consumer of gas in the late 1990s, and Bolivia's geographic location bordering both Brazil and Argentina favored the Bolivian gas market.¹⁵⁷ The result was an 820% increase in exports from 2000 to 2006.¹⁵⁸

The historical significance of natural resources culminated in a series of mass mobilizations against local and national governments from 2000 to 2005. First, a period of violence occurred in Bolivia over the government-backed eradication of coca. In 2000, the citizens of Cochabamba successfully protested against the privatization of water in their city. In October 2003, protests broke out over the central government's proposal to export unrefined natural gas to the United States at reduced prices.¹⁵⁹ Evo Morales and his political party, Movement to Socialism (MAS), were at the head of the protests demanding nationalization of Bolivia's natural resources. The president of Bolivia at the time,

¹⁵² Young, 186.

¹⁵³ Hudson et al., *Bolivia: A Country Study*, 101.

¹⁵⁴ Young, *Blood of the Earth*, 98.

¹⁵⁵ Eugenio Cerutti et al., "Bolivia: Selected Issues," IMF Country Report (International Monetary Fund, July 2007), 5.

¹⁵⁶ Cerutti et al., 5.

¹⁵⁷ Cerutti et al., 5.

¹⁵⁸ Cerutti et al., 5.

¹⁵⁹ Young, *Blood of the Earth*, 188.

President Sánchez de Lozada, subsequently resigned due to the violent protests and Carlos Mesa took over. President Mesa tried to alleviate the conflict by organizing a referendum to vote on the nationalization of natural gas, but eventually resigned in 2005 after declaring that he “cannot continue to govern with threats that strangle the country.”¹⁶⁰

After the resignation of Mesa, Evo Morales won a landslide election and was inaugurated as president of Bolivia in early 2006. Although Morales was not new to politics, he rode a grassroots movement as a political outsider and became the first indigenous president of Bolivia. By winning the election, Morales united a wide variety of groups that were against the status quo in Bolivia.¹⁶¹ Morales was a coca farmer who demanded the nationalization of the hydrocarbon industry, claimed to be against neoliberal policies, and supported decentralization of the government. However, despite his anti-neoliberal rhetoric, Morales’s incoming administration was given \$1.7 billion in debt reduction as an early boost.¹⁶² When Morales took charge in January 2006, the Bolivian gas conflict ended, and the Bolivian population and economy were poised for a more complete nationalization of the hydrocarbon industry.

C. HOW BOLIVIA MITIGATED THE RESOURCE CURSE

The result of the Bolivian gas conflict was a new hydrocarbon law in 2005 that set the foundation for the nationalization of the hydrocarbon sector. The new law had three key elements:

- (i) taxes on production (royalties and a direct hydrocarbons tax), were raised to 50 percent; (ii) the role of the state energy company, YPFB, was restored into that of a more active market participant that would also intermediate all contracts to export natural gas and become the only importer and wholesale distributor of fuel products; and (iii) existing contracts for hydrocarbons production would be renegotiated for compliance with the new law.¹⁶³

¹⁶⁰ “Congress Gets President’s Resignation Letter,” *Chicago Tribune*, March 8, 2005, <https://www.chicagotribune.com/news/ct-xpm-2005-03-08-0503080192-story.html>.

¹⁶¹ Sven Harten, *The Rise of Evo Morales and the MAS* (London: Zed, 2010), 179.

¹⁶² Antonio Furtado et al., “Bolivia: Selected Issues,” IMF Country Report (International Monetary Fund, July 2006), 81.

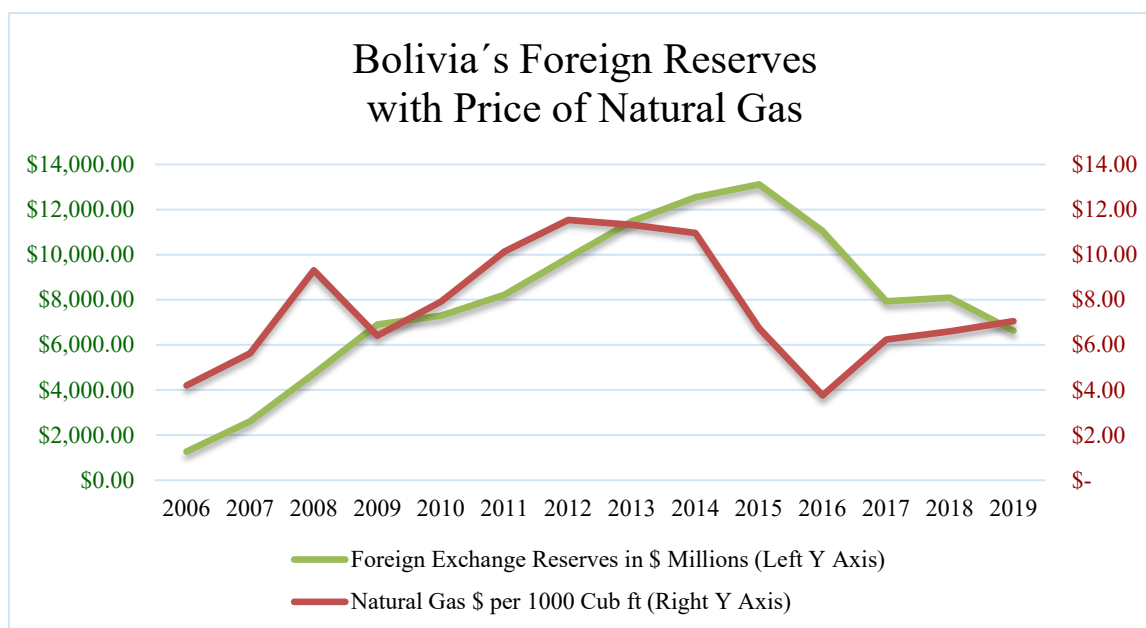
¹⁶³ Furtado et al., 36.

The direct tax on hydrocarbons—IDH for the Spanish acronym—was instituted one year before the nationalization of the hydrocarbon industry.¹⁶⁴ One hundred days into Morales’s presidency, the Bolivian leader sent troops into the gas fields to take over production and complete the nationalization according to the new hydrocarbon law. However, the nationalization of the hydrocarbon industry in Bolivia essentially became a tax hike. Morales and the Bolivian government forced private firms to renegotiate royalties and terms after Bolivia did not have the capital to buy ownership and take over production.¹⁶⁵ Nevertheless, due to the new contracts and previous exploration, hydrocarbon revenue skyrocketed from \$338 million in 2004 to \$2.7 billion in 2008.¹⁶⁶ During this time frame, Bolivia began to invest in foreign reserves at an unprecedented level. Foreign reserves are held in part to ensure countries can maintain budgets during bust markets and attract investors. Figure 12 plots Bolivia’s foreign reserves in comparison to the market price of natural gas, Bolivia’s most important export. As seen in Figure 12, as natural gas prices rose, the Morales administration set aside more and more savings in the form of foreign reserves. When the market dipped in 2009, investments began to flatten, but picked up again when the market rebounded. After the second bust at the end of 2014, Bolivia started to tap into its foreign reserves as designed to balance payments and protect the economy.

¹⁶⁴ María Lasa Aresti, “Oil and Gas Revenue Sharing in Bolivia,” Revenue Sharing Case Study (Natural Resource Governance Institute, April 2016), 3.

¹⁶⁵ Ruben Berrios, Andrae Marak, and Scott Morgenstern, “Explaining Hydrocarbon Nationalization in Latin America: Economics and Political Ideology,” *Review of International Political Economy* 18, no. 5 (2011): 8.

¹⁶⁶ Lasa Aresti, “Oil and Gas Revenue Sharing in Bolivia,” 3.



Bolivia's foreign reserves increased as the price of natural gas rose. Bolivia dipped into those savings when prices fell.

Figure 12. Bolivia's Foreign Reserves and the Price of Natural Gas.¹⁶⁷

These foreign reserves enabled Bolivia to maintain its financial independence during the bust phases of natural gas. The Morales administration did receive \$2.4 billion in development loans from Chinese banks between 2009 and 2016. Yet, as Figure 13 illustrates by comparing Chinese loans and foreign reserves during Morales's presidency, such loans were dwarfed by foreign reserve totals. China held \$916.6 million, or approximately 9% of Bolivia's \$10.5 billion foreign debt, as of 2019, and is the most significant bilateral lender by a distance. However, the availability of significant foreign reserves demonstrates that Bolivia has the ability to pay down the loans.¹⁶⁸ While Bolivia's extensive economic reliance on natural resources made the country vulnerable to the resource curse, the country's vast foreign reserves nonetheless enabled it to avoid having to resort to foreign loans to weather the downturns from the commodities market.

¹⁶⁷ Adapted from CEIC Data. Ceicdata.com.

¹⁶⁸ "Informe de La Deuda Externa Pública" (Banco Central de Bolivia, Gerencia de Operaciones Internacionales, June 30, 2019), 2.

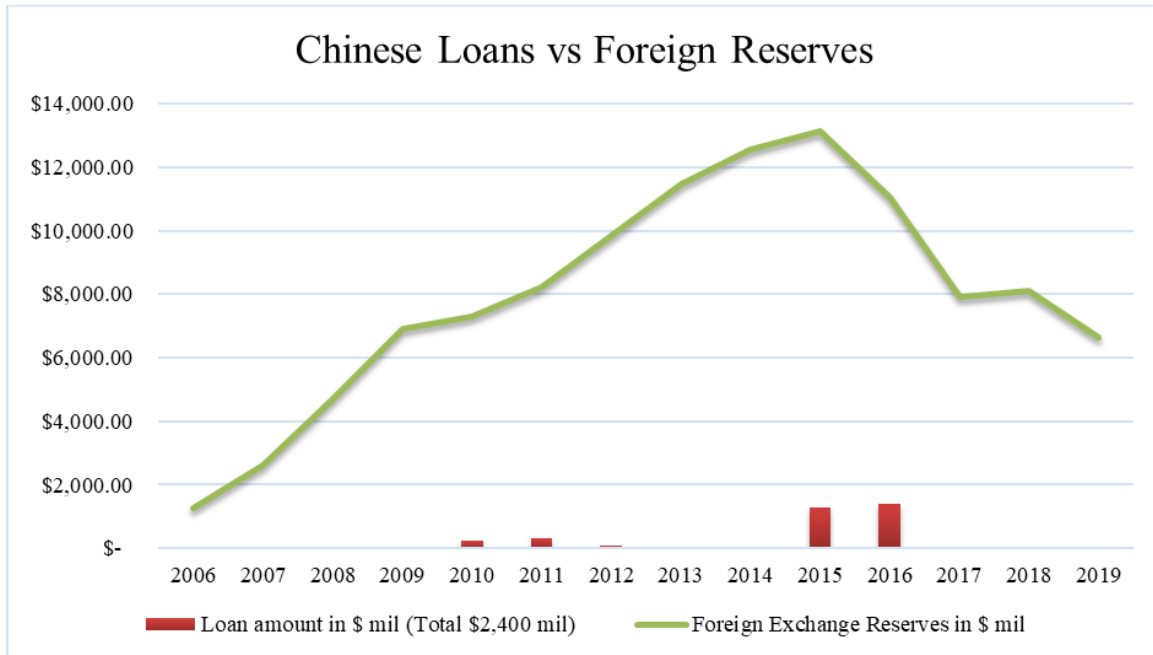


Figure 13. Chinese Loans to Bolivia and Bolivia's Foreign Reserves.¹⁶⁹

Deriving from the literature discussed in Chapter I on how the resource curse affects politics and socioeconomics, this chapter will assess how Bolivia was affected during the years of Morales's presidency. The expectation is that Bolivia will still experience the effects of the resource curse, but that policy decisions by the Bolivian government and limited usage of Chinese loans protected the economy from an aggravated curse.

1. Characteristic 1: Ineffective Institutions

In Chapter I, the literature established that a state that suffers from the resource curse will often experience centralized decision-making because IOCs and foreign capital need a bargaining partner. Over-centralization with a few decision makers decreases transparency and leads to corruption. In Chapter II, Ecuador first centralized to become a bargaining partner while renegotiating with the IOCs, continued centralizing to cut deals bilaterally with China, and finally experienced exacerbated corruption due to centralized

¹⁶⁹ Adapted from Kevin P. Gallagher and Margaret Myers, "China-Latin America Finance Database," Inter-American Dialogue, accessed June 10, 2019, https://www.thedialogue.org/map_list/. CEIC Data. Ceicdata.com.

decision-making and opaque Chinese loans. In this section, evidence concerning decision making and corruption in Bolivia will be examined to determine if conservative macroeconomic policies mitigated this characteristic of the resource curse. The evidence suggests that the government experienced decentralization before and during the beginning of Morales's administration. Decentralization may have prevented Morales from having the funds to fully nationalize and the authority to execute large Chinese loans—two opportunities that could have potentially increased corruption.

In 1994, Bolivia passed the Law of Popular Participation, which shifted 20% of the national budget to Bolivia's 311 municipalities, and 5% to universities.¹⁷⁰ Subsequent laws further decentralized the government, including the IDH and the new national constitution passed during Morales's presidency in 2009.¹⁷¹ After the IDH was implemented, "55 percent of hydrocarbon revenue and 20% of other tax revenue" was distributed to subnational governments and universities.¹⁷² In 2010 the IMF declared that Bolivia showed "a strong commitment to decentralization and regional autonomy," especially concerning the distribution of hydrocarbon revenue.¹⁷³ To the IMF, decentralization was encouraging, but for China, the trend was troubling. Author R. Evan Ellis claims China viewed the dispersion of power as unstable, and that China proceeded cautiously with loans because it was wary of "regional demands for autonomy."¹⁷⁴ Therefore, the Morales administration did not present itself as a reliable centralized decision maker for the Chinese.

¹⁷⁰ Benjamin Kohl, "Democratizing Decentralization in Bolivia: The Law of Popular Participation," *Journal of Planning Education and Research* 23, no. 2 (2003): 153, <https://doi.org/10.1177/0739456X03258639>; Lasa Aresti, "Oil and Gas Revenue Sharing in Bolivia," 9. There are currently 337 municipalities in Bolivia in 2020.

¹⁷¹ For more information on decentralization, see Kohl, "Democratizing Decentralization in Bolivia: The Law of Popular Participation"; Miguel Centellas, "Bolivia's Radical Decentralization," *Americas Quarterly*, July 21, 2010, <https://www.americasquarterly.org/fulltextarticle/bolivias-radical-decentralization/>; Lasa Aresti, "Oil and Gas Revenue Sharing in Bolivia."

¹⁷² Fabian Valencia and Fabian Bornhorst, "Bolivia: Selected Issues," IMF Country Report (Washington, DC: International Monetary Fund, January 2010), 9.

¹⁷³ Valencia and Bornhorst, 9.

¹⁷⁴ R. Evan Ellis, *China in Latin America: The Whats and Wherefores* (Boulder, Colorado: Lynne Rienner Publishers, 2009), 137.

As is expected in a resource-rich country, corruption still occurred in Bolivia's central government. During Morales's presidency, the largest threat to corruption was the state capitalist model, and specifically the power of the state-owned hydrocarbon entity, YPFB. Overall, YPFB was not trusted by Bolivians, with 74% of the population believing there was corruption in the organization.¹⁷⁵ Two incidents involving the energy sector threatened to encompass Morales himself, but criticism was deflected to those directly implicated. In 2009, Santo Ramírez, president of YPFB and political ally of Morales, was embroiled in a bribery scandal. The courier of a \$450,000 bribe destined for Ramírez was robbed and murdered, and Ramírez was sentenced to 12 years in prison when it was found he was accepting bribes.¹⁷⁶ After initially defending Ramírez, Morales fired his political ally the next day. In 2016, Morales's former girlfriend Gabriela Zapata was convicted of embezzlement and accused of using her influence to win state contracts valued at \$576 million for the Chinese construction firm where she worked.¹⁷⁷ Morales denied any involvement and called on the Bolivian congress to investigate.¹⁷⁸ Morales eventually escaped any direct responsibility in the case.

¹⁷⁵ "El 74% de la Población Cree Que Hay Corrupción en YPFB," *Diario Pagina Siete*, June 5, 2017, <https://www.paginasiete.bo/economia/2017/6/5/poblacion-cree-corrupcion-ypfb-140020.html>.

¹⁷⁶ Sofia Wickberg, "Overview of Corruption and Anti-Corruption in Bolivia," U4 Expert Answer (Transparency International, September 27, 2012), 3–4.

¹⁷⁷ "Bolivian President Fends off Corruption Claims: 'We Have Nothing to Hide,'" *The Guardian*, February 11, 2016, <https://www.theguardian.com/world/2016/feb/11/bolivia-president-evo-morales-corruption-investigation>.

¹⁷⁸ "Bolivian President Fends off Corruption Claims: 'We Have Nothing to Hide.'"

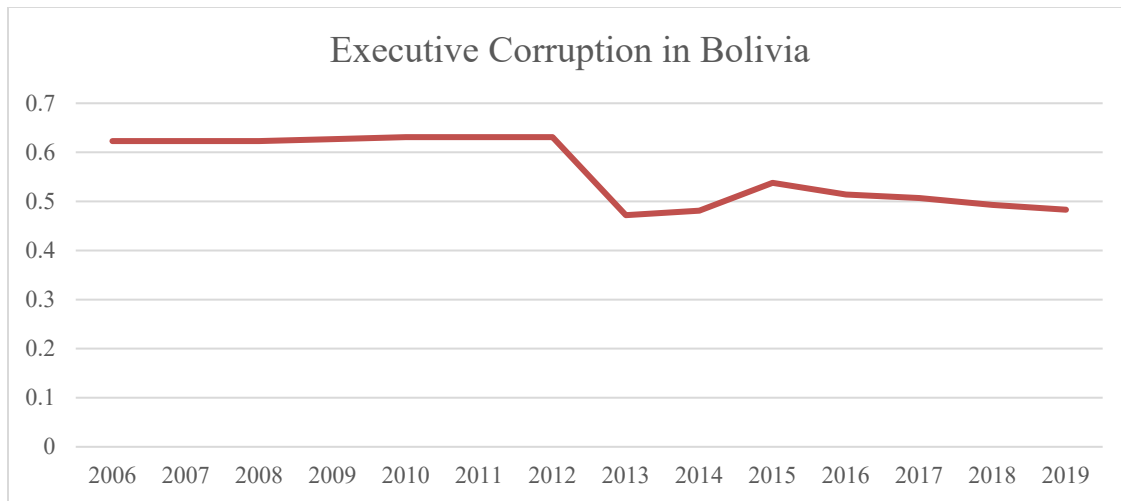


Figure 14. Executive Corruption in Bolivia from V-Dem Institute.¹⁷⁹

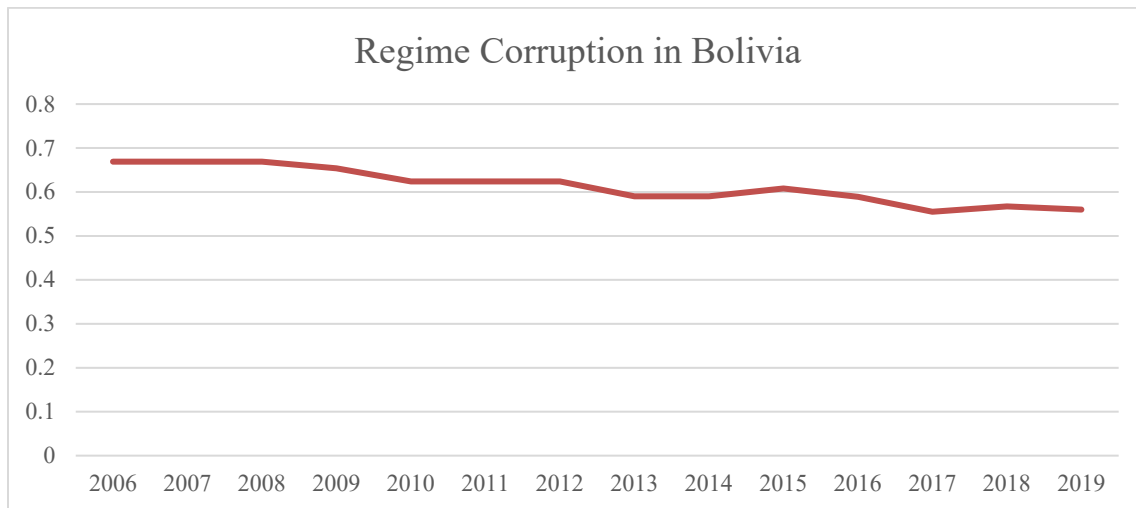


Figure 15. Regime Corruption in Bolivia from V-Dem Institute.¹⁸⁰

Although consolidating the hydrocarbon sector into the state-owned YPFB created an opportunity for corruption, decentralized profit-sharing reduced corruption in the central government of Bolivia. Figure 14 indicates that executive corruption fell sharply in the middle years of Morales's presidency, and Figure 15 shows a gradual decline in regime corruption. Figures 14 and 15 demonstrate that, overall, the Morales administration

¹⁷⁹ Source:Teorell, "Executive Corruption Index."

¹⁸⁰ Source:Sigman and Lindberg, "Regime Corruption Index."

reduced central government corruption throughout their nearly 14 years in office. Author Benjamin Kohl explains that instead of high-level corruption, the issue may have been spread to the department and municipal levels in Bolivia, in what he calls a “decentralization of corruption.” However, Fisman and Gatti discovered an overall negative correlation between corruption and decentralization in 1999, and many multilateral organizations such as the World Bank agree that decentralization improves accountability by placing governmental control closer to the population.¹⁸¹ Therefore, it appears Bolivia’s decentralization offset some of the dangers of the state-capitalist model.

Overall, decentralization in Bolivia appears to have reduced corruption in the central government by dispersing resource revenue and reducing economic decision-making power for Morales. Therefore, China did not view Morales as a stable centralized bargaining partner and only provided limited lending to Bolivia. Bolivia still experienced corruption from resource revenue, but the central government did not receive substantial nontax revenue in the form of opaque loans from China. Instead of significant funds in the hands of a few leaders, decentralization in Bolivia brought decision-making closer to the level of the population, producing more accountability and less corruption.

2. Characteristic 2: Authoritarian Tendencies

According to the resource curse literature, resource-rich nations tend to produce leaders with authoritarian tendencies. In Ecuador’s case, resource rents provided Correa with the funds to consolidate power and burden political opponents, and loans with few restrictions from China magnified Correa’s ability to do it. Since Bolivia accepted fewer loans from China and set aside foreign reserves, it is expected that Morales’s authoritarian tendencies were constrained due to a lack of funds. As discussed in Chapter I, author Michael Ross claims that one reason resource-rich authoritarians stay in power is because they can buy public support and the loyalty of the military.¹⁸² There is no question that

¹⁸¹ Kohl, “Democratizing Decentralization in Bolivia: The Law of Popular Participation,” 155; Kajsa Karlström, “Decentralization, Corruption and the Role of Democracy,” Working Paper Series 2015 (Gothenburg, Sweden: The Quality of Government Institute, August 2015), 1, https://qog.pol.gu.se/digitalAssets/1538/1538165_2015_14_karlstr--m.pdf.

¹⁸² Ross, “Will Oil Drown the Arab Spring? Democracy and the Resource Curse,” 3–4.

Morales displayed authoritarian tendencies during his presidency, but evidence in this section suggests that Morales possessed limited ability to concentrate power because he lacked funds to buy public support and the military's loyalty. Overall, Morales eroded Bolivia's democracy and China eventually increased financial support, but the support was delayed and inadequate, and did not sustain Morales's presidency.

Morales became increasingly more authoritarian during his presidency. *The New York Times* stated that Morales "steadily tightened his grip on power, prosecuting opposition figures, packing the courts and electoral boards with allies and unleashing bands of his supporters to intimidate opponents."¹⁸³ Figure 4 displays the liberal democracy index in Bolivia during Morales's presidency. Although Morales was democratically albeit controversially elected four times, Figure 16 indicates that he chipped away at Bolivia's democracy. In fact, Morales was able to run for a fourth term when the stacked judicial system ruled that his "human rights would have been violated were he not on the ballot."¹⁸⁴ Morales resorted to the courts after waning support from the public resulted in the rejection of a constitutional amendment that included scrapping term limits.¹⁸⁵ The referendum occurred during a downturn in commodity prices, and as the narrative in characteristic 4 will later demonstrate, social spending by the Morales administration was not as clientelistic as advertised by political opponents. Therefore, Morales was able to consolidate power within the central government, but he was not able to buy off citizens as is typical of resource-rich authoritarians.

¹⁸³ Anatoly Kurmanaev, "Evo Morales and Bolivia: What We Know About the President's Resignation," *The New York Times*, November 12, 2019, sec. World, <https://www.nytimes.com/2019/11/12/world/americas/evo-morales-resignation-bolivia-facts.html>.

¹⁸⁴ John Otis, "How Bolivia's Evo Morales Could Win A 4th Term As President," NPR.org, October 14, 2019, <https://www.npr.org/2019/10/14/767967304/how-bolivias-evo-morales-could-win-a-4th-term-as-president>.

¹⁸⁵ Otis.

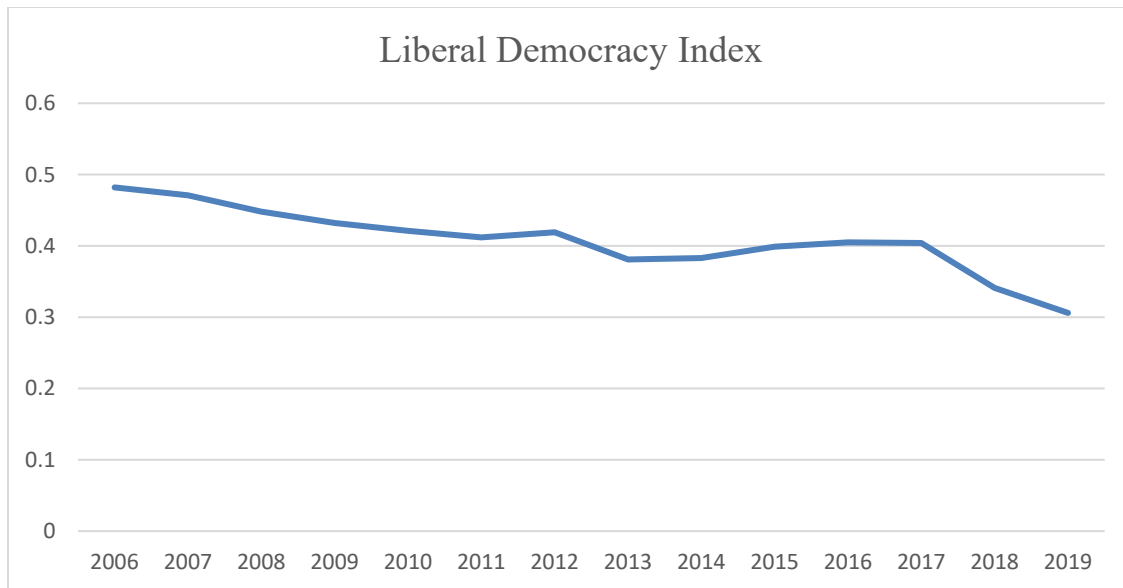


Figure 16. The Liberal Democracy Index During Morales's Presidency Shows an Erosion of Democracy.¹⁸⁶

In addition to diminishing public support, Morales was not able to buy off the Bolivian military and police forces. China did provide the Morales administration with military and security gifts and loans, but the support was not enough to secure Morales's fourth term in office and continued autocratization. China donated equipment and provided loans to Bolivia for security reasons, including a gift of 120 motorcycles, 43 military transport vehicles, and a \$38.3 million loan in order to lease military aircraft.¹⁸⁷ However, outfitting the military and police and purging military leadership that cooperated with the United States in the transfer of obsolete Chinese munitions was not enough.¹⁸⁸ Author John Otis contends that even though Morales gained early favor with the military and police because of his background as a veteran, his ideology and refusal to meet pension and salary demands reduced his influence, and contributed to his removal in 2019.¹⁸⁹ After

¹⁸⁶ Source: Teorell, "Liberal Democracy Index."

¹⁸⁷ Ellis, *China in Latin America: The Whats and Wherefores*, 146–47.

¹⁸⁸ Ellis, 147.

¹⁸⁹ John Otis, "Veteran President's Rift With Bolivian Military Helped Drive His Early Exit," *The Wall Street Journal*, December 2019, <https://www.wsj.com/articles/veteran-presidents-rift-with-bolivian-military-helped-drive-his-early-exit-11575541801>.

the military disobeyed Morales's orders to squash protests, and the police abandoned guard of the presidential palace in La Paz, the head of the Armed Forces—a Morales loyalist—asked the controversially elected president to step down.¹⁹⁰

Although Morales was ultimately not able to hold onto power, China's confidence in his authority grew as his presidency continued and as Morales consolidated power. During the first ten years of the Morales administration, China only lent \$1.5 billion to Bolivia.¹⁹¹ However, in late 2015, China created a \$7 billion line of credit for Bolivia and then increased that total to \$10 billion in 2016.¹⁹² The line of credit was sparingly used, with only \$835 million executed during that time frame according to the China-Latin America Finance database. Despite minimal funding in the end, at least one of the implemented projects had shades of authoritarianism. The BOL-110 surveillance system was ordered in 2016, and financed and built by China. The system is limited in scope compared to Ecuador's ECU 911 system, but the Bolivian system does have facial recognition technology.¹⁹³ Since the first phase of installation in 2019, there does not appear to be any evidence that the \$105 million system has been used to oppress political opponents.¹⁹⁴

Overall, the Morales administration eroded Bolivia's democracy, but it does not appear that resource rents or Chinese loans played a significant role in autocratization because Morales had limited access to the funds. Resource rents were partially dispersed due to the IDH, or invested into foreign reserves. Additionally, Morales had limited access to Chinese loans initially. Morales did not completely buy off citizens, as indicated by the referendum results and extensive protests in November 2019. Furthermore, Morales was not able to buy the loyalty of the military, a factor that has prolonged authoritarian rule in

¹⁹⁰ Otis.

¹⁹¹ Gallagher and Myers, "China-Latin America Finance Database."

¹⁹² Margaret Myers and Kevin Gallagher, "Chinese Finance to LAC in 2016," China-Latin America Report (The Dialogue, Boston University, February 2017), 2.

¹⁹³ Chris Burt, "Chinese Biometric Surveillance Technology Deployed Internationally amid Criticism," *Biometric Update*, October 23, 2019, <https://www.biometricupdate.com/201910/chinese-biometric-surveillance-technology-deployed-internationally-amid-criticism>.

¹⁹⁴ Burt.

neighboring countries. If Morales had secured more financing from China, it is possible the autocratization could have been expanded or prolonged.

3. Characteristic 3: Dependence on Resource Wealth and Negative Trade Balance

Resource-rich countries have natural incentives to continually invest in the resource industry; however, this usually results in the neglect of other industries and negative trade balances. According to the hypothesis in Chapter I, China's lending is similar to resource wealth because both will increase an economy's investments in resource extraction and unbalance trading relationships. In Chapter II, Ecuador became increasingly dependent on resource wealth and Chinese loans, and as a result, its trade balances suffered. This section will examine Bolivia's hydrocarbon production and trade balances with China and the world to determine if Bolivia experienced a normal or mitigated resource curse in terms of dependency. In general, this thesis finds that Bolivia suffered from the resource curse as is expected of a resource-rich nation without significant Chinese lending. Bolivia was not able to avoid dependence on its resource wealth, which produced negative trade balances after the dip in commodity prices. However, Bolivia did not become dependent on foreign capital to fund resource investment.

Bolivia relied heavily on resource extraction during the presidency of Morales. Figure 17 demonstrates that during the Morales administration, Bolivia increased production of petroleum. However, petroleum is insignificant in Bolivia compared to the Bolivian natural gas market. Figure 18 shows a heavy increase in natural gas production in Bolivia. Due to massive natural gas discoveries in the early 2000s, Bolivia began the nationalization process under Morales with huge reserves of natural gas. Reserves were estimated at 24 trillion cubic feet (tcf) in 2006 when Bolivian troops marched into the gas fields.¹⁹⁵ However, after massive extraction, reserves dropped to 9.9 tcf in 2014 when commodity prices plunged and production tailed off.¹⁹⁶ Álvaro Ríos, the former Minister

¹⁹⁵ Bolivia. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

¹⁹⁶ Bolivia. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

of Hydrocarbons, explains that there is an uncertain future for the hydrocarbon market due to the upcoming 2020 elections in Bolivia and the changing natural gas market in surrounding countries.¹⁹⁷ Ríos acquiesces that the nationalization of the hydrocarbon industry was popular, but that a major reform of the oil and gas sector is vital to Bolivia's future. The government claims that only 10% of Bolivia has been explored for hydrocarbons.¹⁹⁸ However, Ríos contends exploration is not likely under the current circumstances: "there is no way we can continue looking for oil and gas with a 50% minimum royalty at the wellhead."¹⁹⁹ Under Bolivia's constitution, YPFB is the only company allowed to undertake hydrocarbon exploration.²⁰⁰ Any company wishing to undergo exploration must create a joint stock company with YPFB or create a service contract with the state-owned company.²⁰¹ Overall, Bolivia became dependent specifically on the extraction of natural gas, and while nationalization allowed immense levels of production, the model hindered Bolivia from investing in exploration.

¹⁹⁷ "Petroleum & Politics - South America's Smaller and Emerging Oil & Gas Producers," YouTube, March 20, 2020, https://www.youtube.com/watch?v=rRz-Etr_2Q8. Ríos was the Minister of Hydrocarbons in 2003 and 2004.

¹⁹⁸ Bolivia. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

¹⁹⁹ "Petroleum & Politics - South America's Smaller and Emerging Oil & Gas Producers."

²⁰⁰ Lasa Aresti, "Oil and Gas Revenue Sharing in Bolivia," 6.

²⁰¹ Daniel Mariaca Alvarez, "Bolivia: Oil and Gas Regulation 2020," Text, *International Comparative Legal Guides International Business Reports* (Global Legal Group, March 1, 2020), United Kingdom, <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/bolivia>.

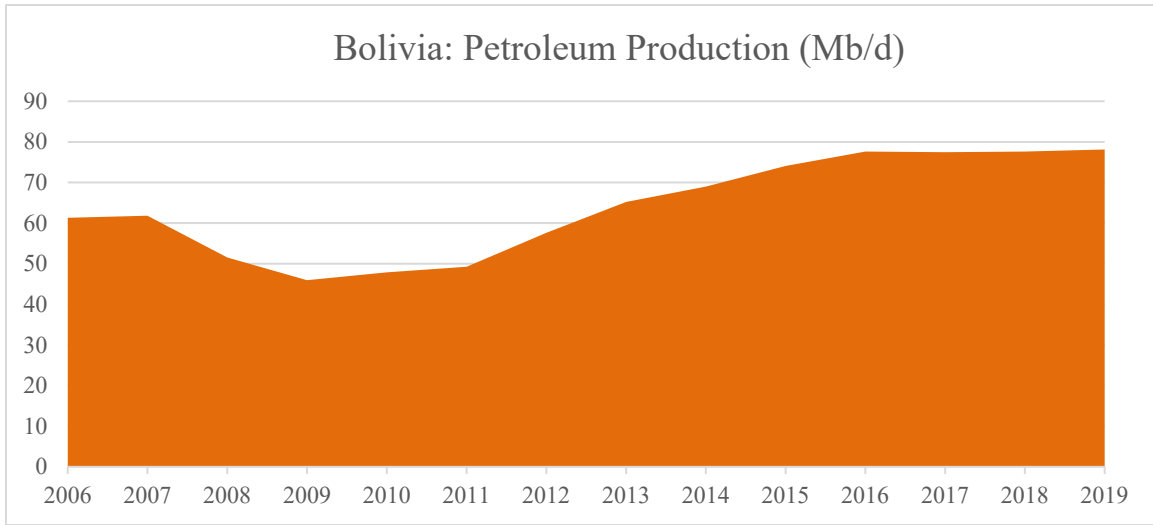


Figure 17. Bolivia's Production of Petroleum in Millions of barrels/day.²⁰²

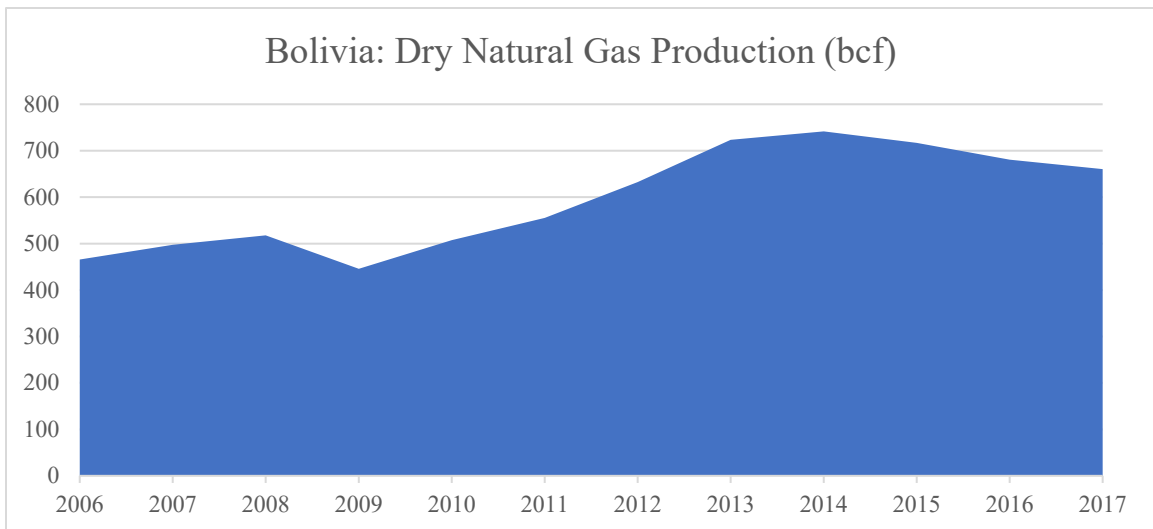


Figure 18. Ecuador's Production of Natural Gas in billions of cubic feet.²⁰³

Until the drop in commodity prices in 2014, taxes in Bolivia kept pace with government expenditures. In Figure 19, direct and indirect taxes are graphed as a

²⁰² Source: Bolivia. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

²⁰³ Source: Bolivia. U.S. Energy Information Administration. <https://www.eia.gov/international/overview/world>.

percentage of expenses. Direct taxes in Bolivia are specifically income tax. Although Bolivia's informal sector is relatively large compared to other countries in South America, Bolivia still ranked third in South America behind Brazil and Argentina in terms of tax revenues as a percentage of GDP.²⁰⁴ Consequently, relatively high direct taxes indicates greater social accountability from taxpayers that want control over government expenditures. Social accountability plays a large factor in reducing misguided public works, a concept that will be discussed in characteristic 5. For Bolivia's indirect taxes, the figures include the IDH and royalties, which are not normally represented as taxes. Both figures kept pace with government expenditures until the 2014 price drop, but tax data was not available in the following years. As explained later in characteristic 4, Bolivia possessed sufficient savings to draw from after the price drop, but it is unclear how Bolivia will respond with a period of sustained low hydrocarbon prices.

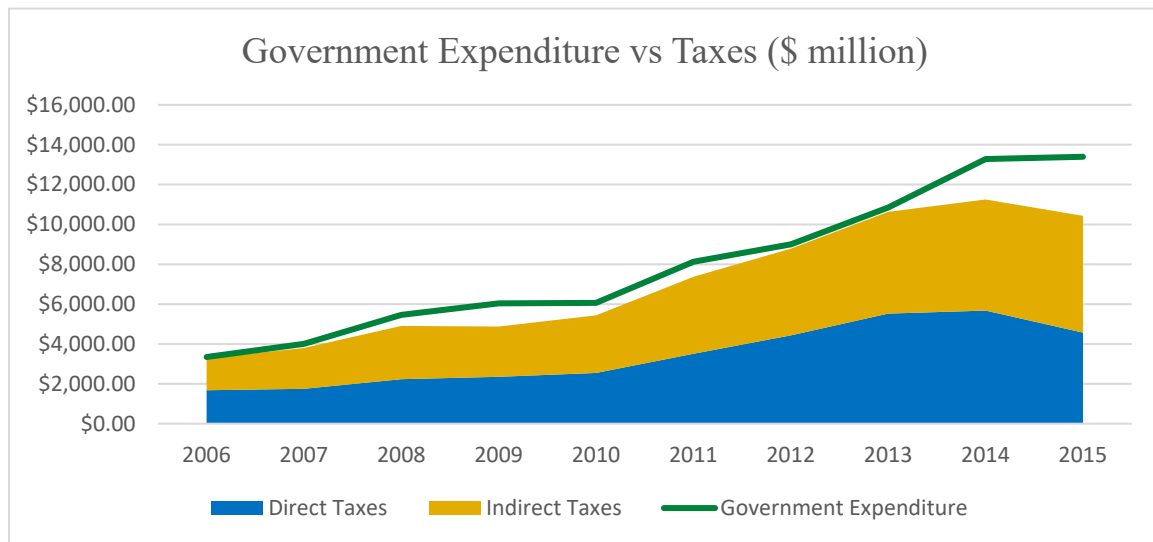


Figure 19. Bolivia's Government Expenditure Compared to Direct and Indirect Taxes.²⁰⁵

²⁰⁴ "Taxing Wages in Latin America and the Caribbean 2016" (OECD Publishing, Paris: OECD/IDB/CIAT, 2016), <https://doi.org/10.1787/9789264262607-en>.

²⁰⁵ Adapted from International Centre for Tax and Development. <https://www.ictd.ac/>. CEIC Data. Ceicdata.com.

Bilateral trade between Bolivia and China skyrocketed during Morales's presidency, but the relationship soon began to favor the Chinese. Figure 20 graphs bilateral trade between Bolivia and China. The figure reveals that China increased its exports to Bolivia by a factor of 14 over 14 years. Meanwhile, Bolivia's exports to China dipped during the commodity bust phase. Bolivia ships an insignificant level of natural gas to China because of the high costs of transport. Instead, most of Bolivia's natural gas travels by pipeline to Brazil and Argentina.²⁰⁶ In 2017, Bolivia's main exports to China were zinc, precious metal ore, lead, and copper.²⁰⁷ Meanwhile, China exported clothing, machinery, broadcasting equipment, buses, pesticides, and many other value-added products.²⁰⁸

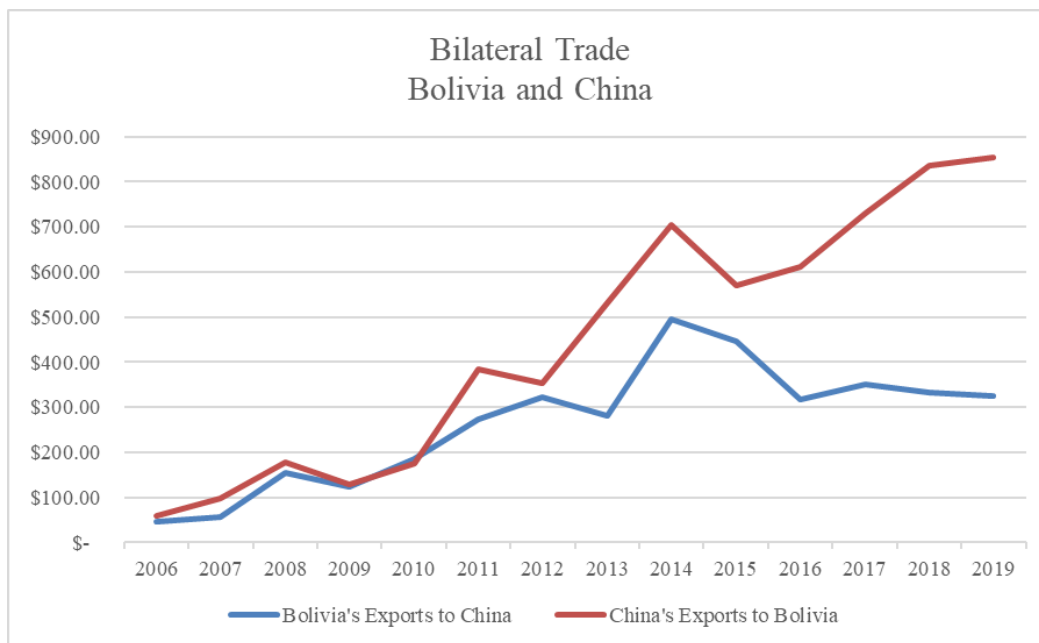


Figure 20. Bilateral Trade between Bolivia and China.²⁰⁹

²⁰⁶ AJG Simoes and CA Hidalgo, "The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development." Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence. (2011). Bolivia exported \$1.35 billion and \$1.18 billion of natural gas to Brazil and Argentina respectively in 2017.

²⁰⁷ Simoes and Hidalgo.

²⁰⁸ Simoes and Hidalgo.

²⁰⁹ CEIC Data. Ceicdata.com.

Bolivia relied on China and other countries for value-added manufacturing during the Morales administration, considering manufacturing dropped from 11.3% of GDP in 2006 to 10.3% in 2018. The World Bank acknowledged in 2015 that Bolivia’s growth was encouraging, but “uneven, with extractive industries, construction, and financial services showing rapid expansion, while agriculture and manufacturing fell behind.”²¹⁰ Figure 21 charts Bolivia’s overall trade balance during the Morales administration. The figure illustrates the why the World Bank was concerned about uneven growth. Bolivia’s overall trade balance dipped negative five years straight after the drop in commodity prices. The data indicates that while Bolivia’s GDP per capita increased, Bolivians increased their consumption of higher value goods, and many of those goods were imported from manufacturers like China instead of being produced in-country.

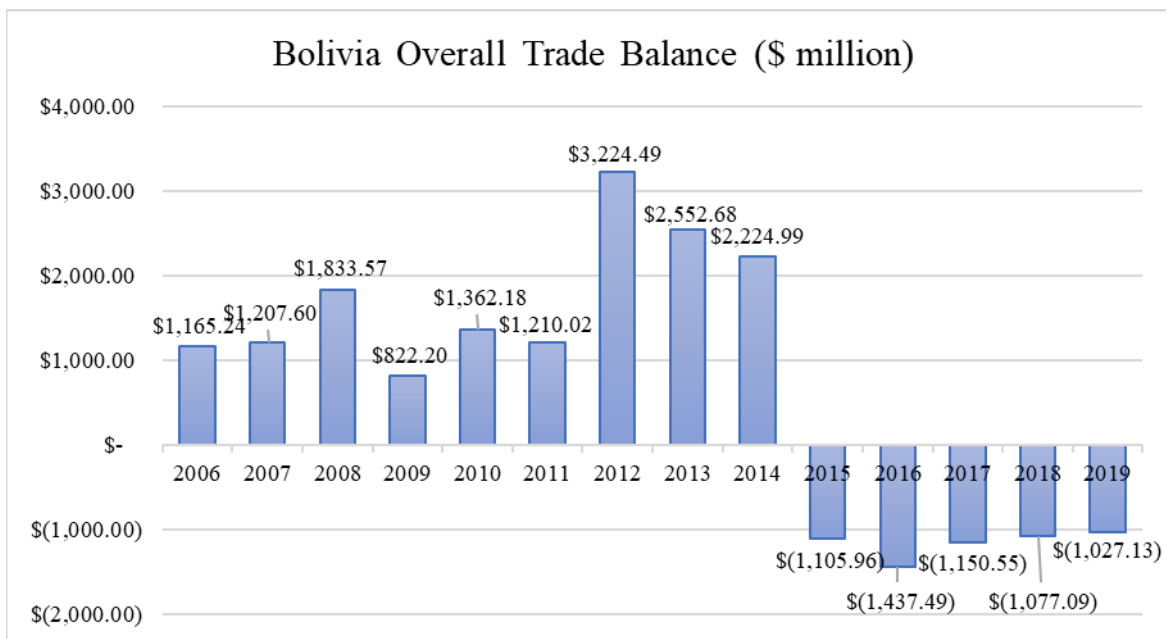


Figure 21. Bolivia’s Overall Trade Deficit Suffered After a Drop in Hydrocarbon Prices in Late 2014.²¹¹

²¹⁰ “The Plurinational State of Bolivia Country Program Evaluation, FY05-13: An Independent Evaluation” (Washington, DC: World Bank Group, 2015), 1.

²¹¹ Adapted from CEIC Data. Ceicdata.com.

In summary, Bolivia's policies did not mitigate the resource curse in terms of its dependence on natural resources and the resulting negative trade balance. Instead, Bolivia experienced uneven growth as is expected from a resource-rich nation. Heavy extraction after nationalizing hydrocarbons played the biggest role in increasing dependence. However, Bolivia did not invest heavily in the future production of natural gas by neglecting exploration. Dependence on production prevented the advancement of value-added processes, which in turn created negative trade balances. Nevertheless, the Bolivian government did not become dependent on foreign capital, and the government was prepared for the bust phase in the cycle because of cautious spending.

4. Characteristic 4: High Government Spending

States that suffer from the resource curse overspend because leaders do not have incentives to be frugal. In Chapter II, Ecuador's heavy government expenditures became unsustainable, and the government depended on Chinese loans to maintain spending. When resource profits and Chinese loans diminished, the socioeconomic gains of Correa's presidency appeared to be in danger of reversing. Due to reduced lending from China in Bolivia, it is expected that Bolivia will spend and save at a normal rate for countries experiencing the resource curse. If Chinese loans exacerbate the curse, limited lending normalizes the curse. Evidence shows that despite populist rhetoric, the Morales administration spent and saved resource rents at a conservative level.

Despite booming profits from natural gas as previously discussed, the Bolivian government increased social spending judiciously. Morales famously added several social spending programs that boosted his popularity. Three programs in particular stood out: Juancito Pinto provided grants to incentivize families to keep children in school, the Juana Azurduy Voucher Program gave uninsured mothers funds to seek care during and after pregnancies, and Renta Dignidad provided funds for citizens over the age of 60.²¹² Even with increased social spending of 80% in real terms during Morales's presidency, social spending matched the economic growth of the country.²¹³ Before Morales came to power,

²¹² Bunker et al., "Bolivia's Economic Transformation," 13.

²¹³ Bunker et al., 13.

Bolivia spent an average of 12.86% of GDP on social spending from 2001–2005.²¹⁴ From 2006 until the most recent data in 2017, social spending dropped to 11.9% of GDP, which was very near the Latin American average of 11.5 in 2017.²¹⁵ However, in 2019 Bolivia still ranks last in the continent in per capita social spending at \$310 per person, almost three times less than the regional average of \$894 per person.²¹⁶ Additionally, as shown previously in Figure 19, taxes matched overall government spending until 2014 when Bolivia utilized its abundance of foreign reserves.

Not only did Bolivia spend more conservatively than widely believed, but the Morales administration saved funds for a rainy day. Instead of relying on foreign debt, Bolivia invested heavily in foreign reserves during the booms in natural gas prices. In fact, the IMF stated in 2010 that “even under fairly conservative parameter values, Bolivia would be at worst at the optimal [level of foreign reserves].”²¹⁷ Figure 22 shows Bolivia’s foreign reserves as a percentage of total external debt. As Figure 22 indicates, Bolivia increased foreign reserves during Morales’s presidency and depended on those reserves to help balance the budget when profits fell in late 2014.

²¹⁴ “Bolivia: Portal de Inversión Social,” CEPAL Desarrollo Social, May 8, 2017, <https://observatoriosocial.cepal.org/inversion/es/paises/bolivia>.

²¹⁵ “Bolivia: Portal de Inversión Social.”

²¹⁶ “El Estado Destina al Gasto Social Casi 3 Veces Menos Que la Región,” *Diario Pagina Siete*, January 17, 2019, <https://www.paginasiete.bo/economia/2019/1/17/el-estado-destina-al-gasto-social-casi-veces-menos-que-la-region-206297.html>.

²¹⁷ Valencia and Bornhorst, “Bolivia: Selected Issues,” 2.

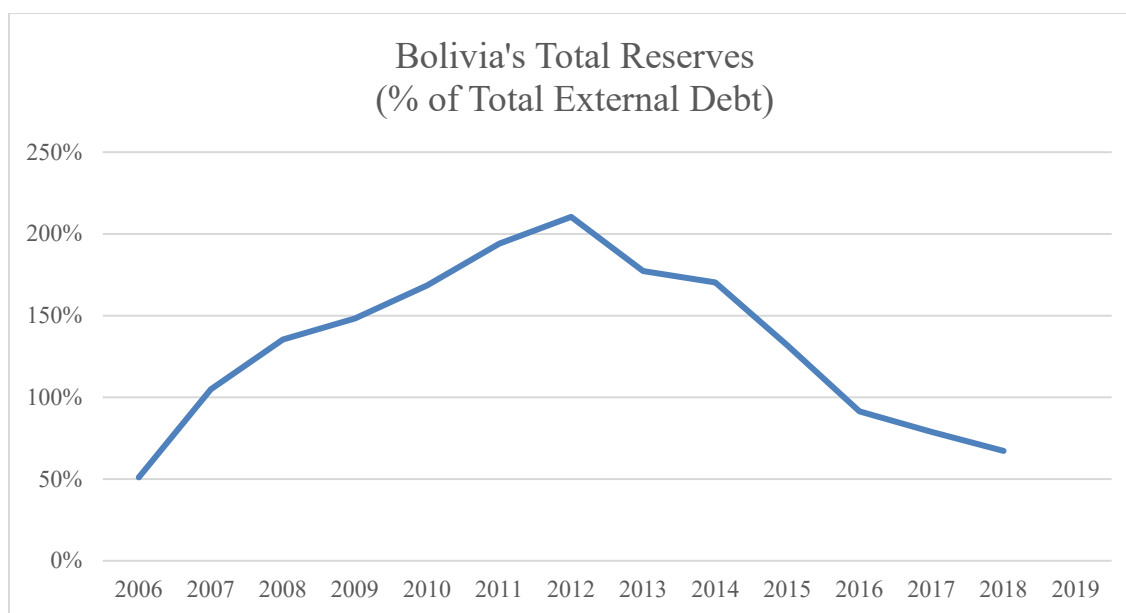


Figure 22. Bolivia's Foreign Reserves as a % of Total External Debt Peaked During the Commodity Boom.²¹⁸

Overall, Bolivia was able to mitigate this characteristic of the resource curse with conservative spending and heavy savings. Although the Morales administration slashed poverty and inequality figures, they did not break the bank or rely on foreign capital to accomplish their goals. Instead, Bolivia relied on heavy extraction to take advantage of high commodity prices and saved foreign reserves at a conservative level to smooth future budgets. As a result, Bolivia's socioeconomic gains during Morales's presidency are sustainable for the near future.

5. Characteristic 5: Misguided Public Works

In Chapter I, misguided public works was identified as a characteristic of the resource curse because leaders have incentives to invest in projects that benefit them politically, but may not be economically sound. Evidence from Chapter II demonstrated that nontax revenue in the form of Chinese loans increased Ecuador's ability to invest in white elephant projects that were not economically sound. With less lending from China—and therefore less nontax revenue—it is expected that Bolivia did not have as many

²¹⁸ Adapted from CEIC Data. Ceicdata.com.

opportunities to fund and execute white elephant projects. Overall, evidence shows that Bolivia's central government experienced a high level of pushback from taxpayers for several energy mega-projects, in part due to the higher taxes discussed in characteristic 3.

Throughout Morales's presidency, Bolivia expressed interest in building several controversial hydroelectric plants. However, four mega-projects presented early in Morales's presidency never broke ground. Two of the dams were destined to be a part of a hydroelectric power complex in the northeast border region with Brazil; however, the Brazilian-Bolivian binational Ribeirao dam and the Bolivian Cachuela Esperanza dam were never built. The estimated capacity of the Ribeirao dam was 3,000 megawatts (MW), and the Cachuela Esperanza projected 600 MW.²¹⁹ The cost of the two dams was estimated at \$2 billion and \$1.2 billion, respectively.²²⁰ At the time of the initial projection in 2008, author Glenn Switkes warned that, if built, the dams could flood the surrounding areas near a city called Guayaramerín. In 2012, the two dams of the power complex on the Brazilian side were completed, and two years later, one of the worst floods in the history of the region occurred. Flooding and severe landslides affected 44,000 households in 113 municipalities in and surrounding Guayaramerín, with an estimated damage of \$450 million.²²¹ Both Brazil and Bolivia vowed to investigate the claim by scientists that "the dams contributed to the problem by holding back water until the rivers began to crest."²²² The Bolivian government received significant pushback from the local municipalities, and the two dams that were expected to be built on the Bolivian side never received funding.

²¹⁹ Glenn Switkes, "Muddy Waters: Consequences of Damming the Amazon's Principal Tributary" (Oakland, CA: International Rivers, June 25, 2008), 15, <https://www.internationalrivers.org/resources/muddy-waters-impacts-of-damming-the-amazon-s-principal-tributary-3967>.

²²⁰ Switkes, 15.

²²¹ "Bolivia , GFDRR," accessed May 10, 2020, <https://www.gfdr.org/en/bolivia>.

²²² Michael Snyder, "As the Dams Rose in Brazil, so Did the Floodwaters in Bolivia. Now, Life Here Has Changed," *Los Angeles Times*, August 20, 2018, <https://pulitzercenter.org/reporting/dams-rose-brazil-so-did-floodwaters-bolivia-now-life-here-has-changed>.

The Bala Project, another hydroelectric complex consisting of two dams, was also shelved after being put forward during the Morales administration.²²³ The government chose an Italian firm called Geodata Engineering to complete the pre-investment work in 2016, a task estimated at \$15 million for the \$6 billion project.²²⁴ In the subsequent assessment, Geodata recommended that the project be delayed 20 years until more convenient conditions existed in Bolivia's energy sector.²²⁵ The project was not cost-effective at the current energy prices. The government announced that they would be continuing with the project, but after resistance from citizens, talks of the plan evaporated.²²⁶

Finally, another mega-dam named Rositas was proposed and financing was secured, but the project never broke ground due to the accountability that Morales's administration faced. In 2016, Bolivia secured a \$1 billion loan from the Chinese Ex-Im bank for the estimated \$1.5 billion project, but the loan was never carried out.²²⁷ The local communities feared the environmental hazards the dam could produce, and opposing activists cited extreme costs. Pablo Solón, a specialist in climate change and an activist who played a part in delaying the mega-projects, claimed Rositas "would generate electricity at a cost of \$74.33 per megawatt hour (MWh) when the average purchase price is \$41 MWh."²²⁸ Solón, who was also the Bolivian ambassador to the UN under Morales, additionally contended that Bolivia produces twice the amount of MW needed for domestic

²²³ Kate Horner, "El Bala Hydroelectric Project: On the Table Again," *International Rivers*, accessed May 10, 2020, <https://www.internationalrivers.org/blogs/734/el-bala-hydroelectric-project-on-the-table-again>.

²²⁴ Elizabeth Ingram, "Bolivia to Carry out Final Design Studies for 3,251-MW El Chepete, 425-MW El Bala Hydro Projects," *Hydro Review*, July 14, 2016, <https://www.hydroreview.com/2016/07/14/bolivia-to-carry-out-final-design-studies-for-3-251-mw-el-chepete-425-mw-el-bala-hydro-projects/>.

²²⁵ Admin, "Geodata no Asegura Rentabilidad del Chepete y El Bala," *Fundación Solón* (blog), June 8, 2017, <https://fundacionsolon.org/2017/06/08/geodata-no-asegura-rentabilidad-del-chepete-y-el-bala/>.

²²⁶ Horner, "El Bala Hydroelectric Project."

²²⁷ "China's Global Energy Finance," accessed March 11, 2020, <http://www.bu.edu/gdp/>; Margaret Myers and Kevin P. Gallagher, "Cautious Capital: Chinese Development Finance in LAC, 2018" (The Dialogue and Boston University Global Development Policy Center, February 2019), 3.

²²⁸ "Reconsidered: Rositas, the Controversial 'Death Dam,'" *The Hidden Crisis in Bolivia*, January 5, 2020, <https://www.hiddencrisisbolivia.org/news/they-reconsider-work-rositas-the-controversial-death-dam>.

supply and does not have any guaranteed export contracts that would necessitate excess hydroelectricity.²²⁹

Outside of the energy sector, the Morales administration was not immune from criticism for other community projects. Two governmental projects in particular sparked a debate over the spending habits of the Morales administration: the South American Parliament building in San Benito, and a new presidential palace in La Paz. The South American Parliament building was constructed for UNASUR, a regional organization that began to implode when several countries pulled out of the organization in 2018 and 2019. The building cost \$60 million and was built in a city with a poverty rate of 45%.²³⁰ The palace was constructed for \$34 million, but the government claimed the new building consolidated several agencies into one building and saved \$20 million in rent per year.²³¹ Critics say that the money for both structures should have been used for hospitals; however, Morales's history of medical infrastructure is strong. As of 2018, the administration had built 1,032 hospitals to bring Bolivia's total to 3,902.²³² Therefore, even when the Morales administration built controversial projects, the government had a strong public works record, and the costs of the projects in question were relatively low.

In general, despite a few controversial project completions, the Bolivian public held the Morales administration accountable and prevented the government from starting construction on several projects that were considered high-cost and high-risk. The government even secured a loan from China for the Rositas mega-dam, but public pressure forced Morales to suspend operations before breaking ground. The Bolivian government relied on taxes and therefore invited accountability from the Bolivian people that prevented large-scale white elephant projects.

²²⁹ "Reconsidered."

²³⁰ Jhon González Lindarte, "Bolivia: Why People Reject the New Headquarters of UNASUR? - *LatinAmerican Post*," September 20, 2018, <https://latinamericanpost.com/23412-bolivia-why-people-reject-the-new-headquarters-of-unasur>.

²³¹ Dan Collins, "Bolivian President's New Residence Is as Imposing as It Is Divisive," *The Guardian*, August 16, 2018, sec. World news, <https://www.theguardian.com/world/2018/aug/16/bolivian-president-evo-morales-new-residence-is-as-imposing-as-it-is-divisive-la-paz>.

²³² "Gobierno Edificó 1.032 Nuevos Hospitales y Están En Marcha Otros 27 de Segundo y Tercer Nivel," *Comunica Bolivia: Construyendo Democracia* (La Paz, Bolivia, April 2018).

D. CONCLUSION

In summary, Bolivia mitigated several characteristics of the resource curse due to its conservative economic policies and lack of Chinese loans. The decentralization of Bolivia reduced corruption in the central government partially because there was less money in the national budget, and therefore fewer opportunities for centralized decision-making. Less funding also reduced Morales's opportunities to buy off the population, obtain the loyalty of the military, or suppress political opponents. On the other hand, the Morales administration depended heavily on the extraction of natural gas at the expense of manufacturing, and consequently the economy experienced uneven growth. However, whether from internal pressure or Chinese uncertainty, Bolivia did not become dependent on Chinese lending to deepen natural resource dependency. Reduced lending and high savings paved the way for moderate spending from the Morales administration despite the populist and anti-neoliberal rhetoric. Finally, Bolivia experienced a relatively high degree of social accountability due to a reduced amount of nontax revenue. Perhaps Morales benefited from the timing of his rise to power. The natural gas industry was poised for a boom market, and the country possessed enormous reserves. However, the Morales administration capitalized on its fortunate timing and executed a sound financial plan that resulted in unprecedented socioeconomic gains. Bolivia must adjust its approach to continue growth, but for now, Bolivia has beaten the resource curse.

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IV. CONCLUSION

A. ECUADOR AND BOLIVIA'S PATHS DIVERGE

Ecuador, Bolivia, and the rest of Latin American enjoyed what is known as the *China Boom* from 2003 until 2013.²³³ China experienced unprecedented domestic growth during the China Boom, and partially due to China's increasing demand for commodities, Latin American economies grew 3.6% per year.²³⁴ For Ecuador and Bolivia, two resource-rich countries that depend on hydrocarbon sales, the GDP gains were even higher. Both countries posted a GDP growth averaging 4.7% per year during the 11-year period.²³⁵ A few years into the China Boom, two populist presidents took over the Andean nations—Rafael Correa in Ecuador in 2007, and Evo Morales in Bolivia in 2006. Each president campaigned and won on a platform of resource nationalism and anti-neoliberalism, and each used the increase in resource rents to drastically improve poverty and equality numbers in their respective economies during the commodity boom. Starting in 2014, the *China Boom* tapered, and a bust cycle followed due to falling commodity prices. The prices for Ecuador and Bolivia's main exports—petroleum and natural gas respectively—were cut in half. The two Andean countries had experienced the ups and downs of commodity markets before. Both nations previously struggled to take advantage of their resource wealth. Many others say this is due to the *resource curse*—a theory that describes the paradoxical struggle resource-rich nations face politically and economically. However, despite the similarities between the two countries and their respective leaders, the paths of Ecuador and Bolivia began to diverge in 2014, especially economically. Ecuador's economy slowed and then stagnated, but Bolivia's steady economic growth continued. In other words, Ecuador was again suffering from issues identified by the resource curse, while Bolivia appeared to have partially mitigated the same issues.

²³³ Kevin P. Gallagher, "The China Triangle: Latin America's China Boom and the Fate of the Washington Consensus," *China Review International* 23, no. 3 (2016): 2, <https://doi.org/10.1353/cri.2016.0121>.

²³⁴ Gallagher, 2.

²³⁵ World Bank, "GDP Growth (Annual %)," The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

This thesis examined how the resource curse interacted with heavy Chinese lending to Ecuador and conservative economic policies in Bolivia. The thesis argues that after the hard-left turn in both nations, Chinese loans exacerbated the resource curse in Ecuador, while Bolivia partially mitigated the resource curse by decentralizing, saving foreign reserves, and resisting heavy lending from China. Despite similar reputations as far-left populist presidents of resource-rich countries, Rafael Correa and Evo Morales led their respective countries to distinct economic outcomes. Additionally, both countries experienced corruption and autocratization, but Ecuador's troubles seemed to be aggravated and more connected to nontax revenue such as resource rents and Chinese loans. Overall, the key difference was the action that each government took during the economic boom to prepare for the bust: Ecuador became dependent on China and Chinese loans for growth, and Bolivia created self-sufficient growth. Ecuador's socioeconomic growth became unsustainable, while Bolivia's economic model proved to be mostly viable—and perhaps a blueprint for other resource-cursed countries.

This chapter will be a summary of the central findings of the case studies of Ecuador and Bolivia. The first section will describe how Chinese loans exacerbate the resource curse. The next section will compare the situations and actions of the two countries according to the five characteristics of the resource curse, and theoretical takeaways will be discussed. Finally, the chapter will provide recommendations, and suggest areas for further research.

B. CHINESE LOANS AND THE RESOURCE CURSE

The resource curse generates political and economic challenges along five key dimensions: institutions, democracy, economic dependence, government spending, and public works. Resource-rich countries tend to have ineffective institutions because governments put forward a single decision-maker, or small team, to bargain with international companies over resource rents. Therefore, a large portion of the country's income passes through only a few hands, making centralized decision-making more susceptible to corruption. Leaders of resource-rich countries are also more likely to demonstrate autocratic tendencies because they have additional nontax revenue to buy the

loyalty of their population and military while oppressing their political opponents. Additionally, resource-rich countries tend to suffer from the *Dutch Disease*. They pump investments into the resource industry while neglecting other industries, eventually creating trade deficits when the country's exports turn into low value-added commodities and uncompetitive products. Furthermore, leaders of resource-rich countries do not have incentives to be frugal, and therefore they spend exorbitantly. These leaders want to take advantage of the resource rents before they are exhausted, and nontax revenue inherently provokes less accountability than tax revenue. Finally, they are more likely to pursue misguided public works that may benefit them politically, but are not economically viable. Countries that demonstrate these characteristics suffer from the resource curse.

Broadly, this thesis has hypothesized that Chinese loans have similar traits to resource rents, and may therefore may exacerbate the resource curse in resource-rich nations. More specifically, the thesis has examined hypotheses pertaining to each of the characteristics. First, I hypothesized that Chinese loans are likely to further decrease the effectiveness of institutions in resource-cursed countries because decision-making is prone to become over-centralized when international companies need a bargaining partner. This, in turn, facilitates corruption. Chinese loans create the same effect as resource rents because China prefers to deal with a few key leaders from borrowing nations, and details of the loans are not widely released. The loans lack transparency, and corruption is more easily hidden.

Second, this thesis hypothesizes that leaders of resource-rich countries pursuing Chinese loans are more likely to display authoritarian tendencies. So-called strongmen have access to nontax revenue that permits them to buy loyalty and longevity, while they oppress opponents with reduced accountability from citizens. Bilateral Chinese loans have less conditionality in comparison to traditional Western capital and multilateral banks, and the extra funds are not coming out of citizens' pockets. Therefore, Chinese loans create less accountability for borrowing governments from above *and* below.

Additionally, this thesis posits that Chinese loans create even more dependence on resource wealth and negative trade balances. China is particularly interested in primary commodities because it has an enormous population to supply and is the world leader in

manufacturing. Therefore, Chinese loans typically target energy or natural resource sectors in borrowing countries, and cheap Chinese high value-added imports further tip the scales to produce trade deficits for the borrower.

The thesis also suggests that countries borrowing heavily from China exhibit further intensified spending. As previously discussed, less accountability is attached to nontax revenue, and natural resources are extinguishable. Chinese loans are also extinguishable. When China's domestic growth slows, Chinese lending slows or disappears and can create an economic vacuum. Leaders of borrowing nations want to borrow from China while they can, and consequently enjoy reduced accountability.

Finally, leaders have heightened incentives to build mega-projects. Leaders of resource-cursed countries have funds available to spend on projects that may be politically rather than economically motivated. China's involvement supersedes white elephant projects because of the enormous injection of capital and construction expertise. Overall, it was expected that a country that borrowed heavily from China would suffer an exacerbated resource curse and become more dependent on China.

C. COUNTRY COMPARISON

This thesis argues that, despite their similarities at the beginning of the hard-left turn, Ecuador and Bolivia's paths diverged both politically and economically. The main policy difference between the two countries is visualized in Figure 23. Figure 23 shows the dollar amount of foreign reserves in comparison to Chinese loans received in both countries. In green, Bolivia's savings in the form of foreign reserves are far superior to Ecuador's foreign reserves. Ecuador—represented in blue—relied on external debt, and especially on Chinese loans.

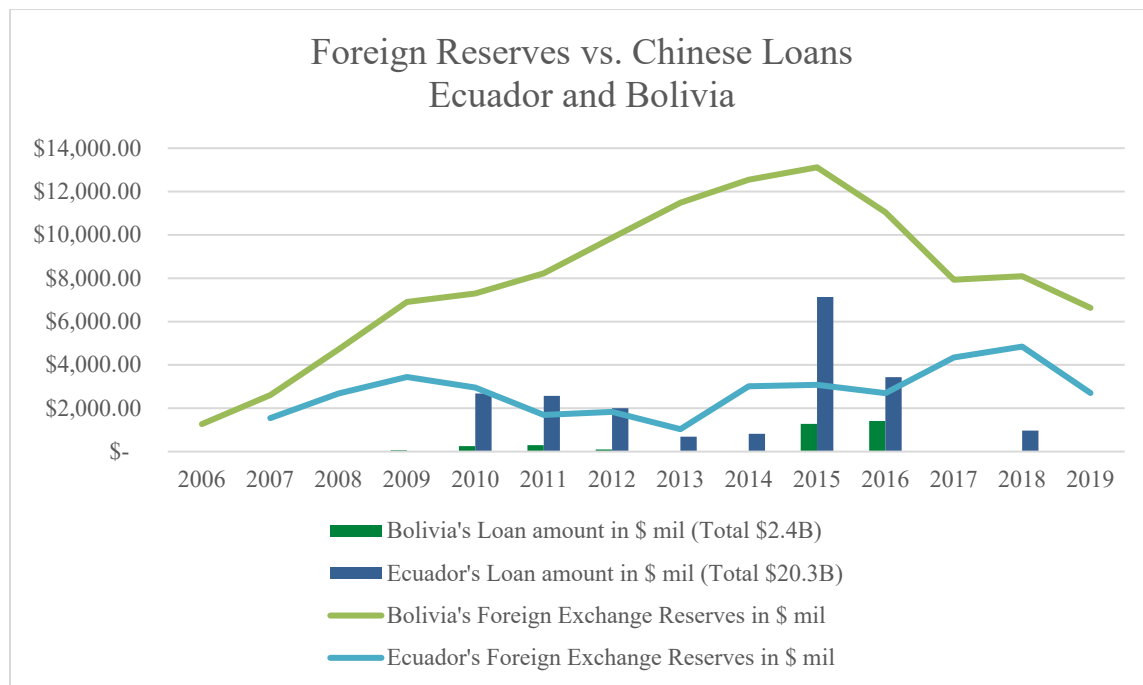


Figure 23. Foreign Reserves and Chinese Loans in Ecuador and Bolivia.²³⁶

The different methods of Ecuador and Bolivia produced diverging economic results. Figure 24 displays the GDP per capita annual % growth. Figure 25 illustrates the GINI index. The figures indicate that Ecuador and Bolivia diverged in terms of wealth and equality after the commodity bust in late 2014. Ecuador's GDP per capita growth began to reverse, while Bolivia's growth steadily continued. Likewise, economic equality stagnated in Ecuador, but continues to improve in Bolivia where the government is cashing in foreign reserves to maintain growth.

²³⁶ Adapted from CEIC Data. Ceicdata.com.

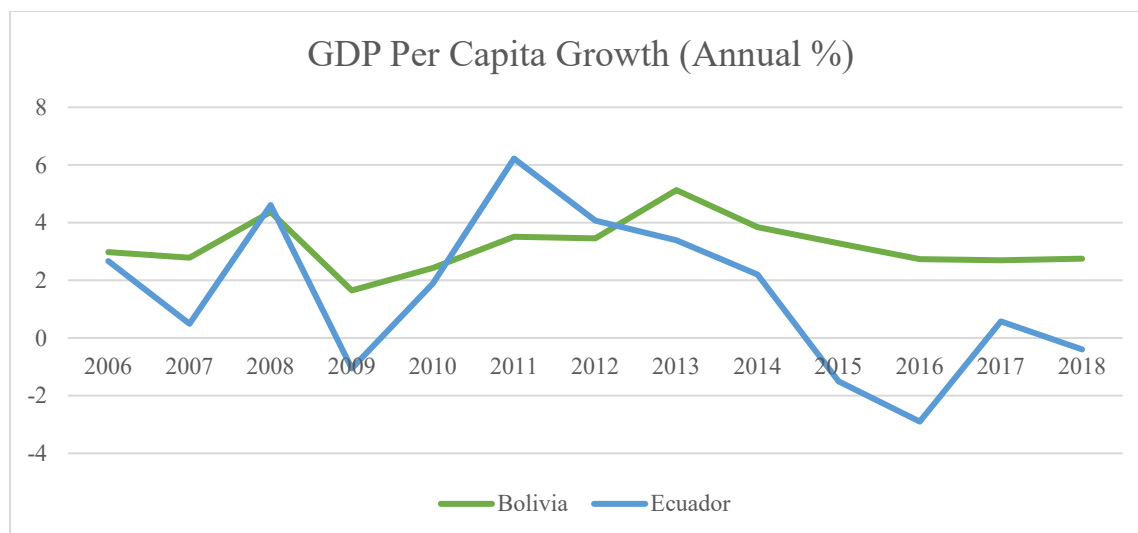


Figure 24. GDP Per Capita Growth (Annual %), Bolivia and Ecuador²³⁷

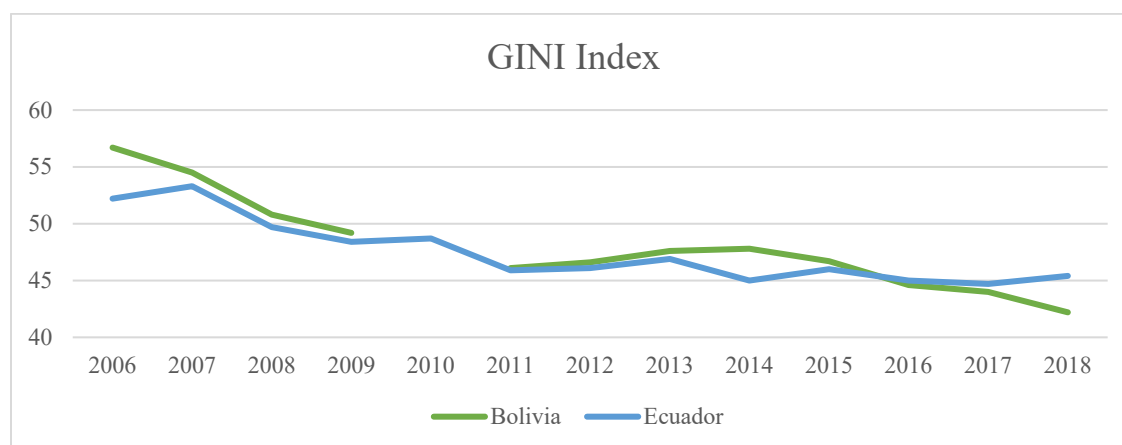


Figure 25. GINI Index, World Bank Estimate for Bolivia and Ecuador²³⁸

²³⁷ Source: World Bank, “GDP per Capita, PPP (Current International \$) - Bolivia,” The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>; World Bank, “GDP per Capita, PPP (Current International \$) - Ecuador,” The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

²³⁸ Source: World Bank, “GINI Index (World Bank Estimate) - Bolivia,” The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>; World Bank, “GINI Index (World Bank Estimate) - Ecuador,” The World Bank Group, accessed April 10, 2020, <https://data.worldbank.org/indicator/SI.POV.UMIC.GP?end=2018&locations=BO&start=2005>.

In the remainder of this section, I will compare the two countries along each of the dimensions of the resource curse explored in this thesis. The different characteristics of the resource curse help expound the argument to determine how the different policy measures executed in Ecuador and Bolivia affected the countries politically and economically. As a whole, the characteristics demonstrate that Chinese loans exacerbated the resource curse in Ecuador, while foreign reserves and other conservative economic policies partially mitigated the resource curse in Bolivia.

1. Characteristic 1: Ineffective Institutions

In Chapter II, Ecuador centralized its decision-making under the administration of Correa to become a bargaining partner with the IOCs during the nationalization process. Later, the trend continued as the Chinese loans were negotiated by a select team headed by Correa and a few government officials. Several of these leaders—including Correa and one of his vice presidents—demonstrated institutionalized corruption and were eventually charged with corruption and sentenced to prison. As described above, Chinese loans lacked transparency, and this characteristic seemed to abet the Correa administration in institutionalized corruption.

China's reluctance initially to invest in Bolivia was due to Bolivia's decentralization—a trait that developed both before and after Morales came to power. There were a few signs of corruption involving resource rents, but nothing on the scale of Ecuador's troubles with Operation Car Wash or the Arroz Verde case. Morales was able to keep his distance from the few resource-related incidents that did occur during his time in office, and overall, corruption decreased during Morales's presidency.

Figure 26 shows the regime corruption as measured by the V-Dem Institute in both Ecuador and Bolivia starting at the beginning of each leader's presidency. As seen in the figure, corruption rose in Ecuador during the oil boom, and the sharp drop occurred when Correa left office and Chinese loans tapered in 2017. The V-Dem Institute's assessment seems to confirm that the Correa administration was characterized by institutionalized corruption while handling increased nontax revenue. An analysis of Bolivia's corruption levels suggests that rather than experiencing increased corruption during the Morales

administration and commodity boom-and-bust cycles, Bolivia actually experienced a decline in corruption. Based on evidence from Chapters II and III, Ecuador's extra funding from China in the hands of executive members could be a key factor in the divergence.

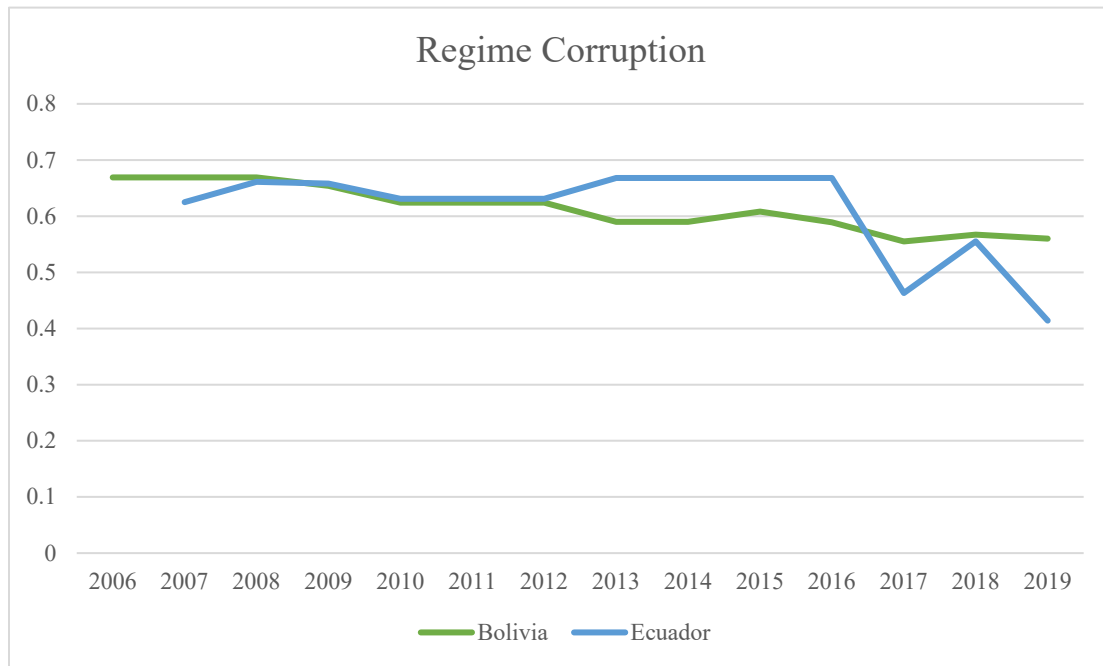


Figure 26. Regime Corruption from V-Dem Institute.²³⁹

2. Characteristic 2: Authoritarian Tendencies

Ecuador's experience using Chinese loans demonstrates how leaders can use the extra funding to enhance their authoritarian tendencies. Correa was able to use resource rents and Chinese loans to oppress political opponents through surveillance and by burdening his successors with heavy debt. China built and financed the ECU 911 system, a police surveillance system that was allegedly used to keep track of political opponents. Additionally, current Ecuadorian President Lenín Moreno has few financial options because he inherited more than \$8 billion of Chinese debt and a commitment to ship 90 %

²³⁹ Rachel Sigman and Staffan Lindberg, "Regime Corruption Index" (Gothenburg, Sweden: Varieties of Democracy Institute), accessed April 30, 2020, <https://www.v-dem.net/en/>.

of all crude oil to China through 2024. Consequently, opaque Chinese loans may have uniquely assisted autocratization under the Correa administration.

In Bolivia's case study, Morales did demonstrate authoritarian tendencies, but they were not amplified by Chinese loans. Morales expressed his authoritarian tendencies by stacking allies and power in the central government, but evidence suggests that Morales was not able to use nontax revenue to buy off the public, obtain military loyalty, or oppress political opponents.

Figure 27 maps the autocratization in both countries according to the V-Dem Institute. Ecuador's autocratization is more sudden and dramatic, while Bolivia's descent appears to be a gradual erosion. Bolivia's slow autocratization appears to mirror the argument of authors Steven Levitsky and Daniel Ziblatt, who claim that democracies no longer die suddenly with a coup, but instead suffer gradually from weakening institutions.²⁴⁰ However, Ecuador's autocratization was arguably precipitated using funds from the nationalization of hydrocarbons, and then further exacerbated by Chinese lending starting in 2010. Based on evidence from Chapter II, Correa used these funds to quickly increase social spending to gain public support and later oppress political opponents. On the other hand, Morales was more conservative with resource rents from the beginning, doubling foreign reserves in his first year in office. Therefore, it seems that Chinese loans may have sped up and sustained Correa's democratic erosion, while Bolivia's autocratization under Morales followed the expected path of a democratically elected leader slowly chipping away at democracy.

²⁴⁰ Steven Levitsky and Daniel Ziblatt, *How Democracies Die*, First edition. (New York: Crown, 2018).

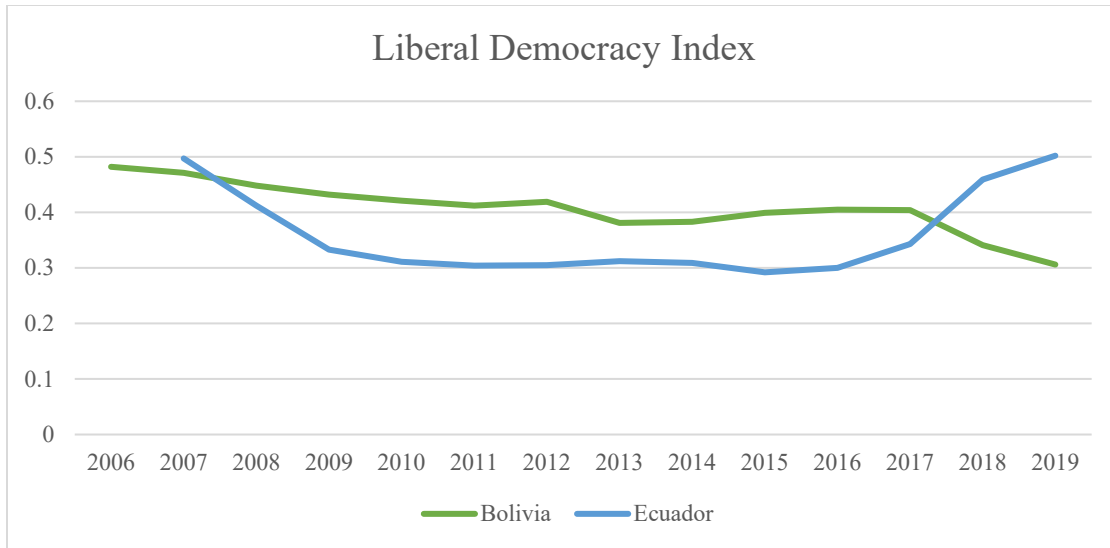


Figure 27. The Liberal Democracy Index from the V-Dem Institute.²⁴¹

3. Characteristic 3: Dependence on Resource Wealth and Negative Trade Balance

Evidence from Chapter II suggests that Ecuador used Chinese loans to become even more dependent on its resource wealth. After nationalizing, the Correa administration ramped up hydrocarbon extraction, while at the same time manufacturing stagnated—a process called primarization. The large injection of capital in the form of Chinese loans was mostly directed towards the energy sector because China requires an immense supply of energy and also has expertise and excess capacity in construction. These factors amplified Ecuador’s dependence on the energy sector. Meanwhile, imports from China increased as Ecuador purchased more value-added consumer goods. Due to these factors, Ecuador’s trade balance suffered. Overall, Ecuador became increasingly dependent on petroleum and Chinese loans to maintain socioeconomic growth.

Bolivia also struggled to diversify its economy, but the government did not exacerbate its dependence in the same manner as Ecuador. Nationalization induced Bolivia to heavily extract natural gas, but the government did not have additional funds to reinvest in the hydrocarbon industry. Therefore, Bolivia did not substantially invest in the

²⁴¹ Source: Jan Teorell, “Liberal Democracy Index” (Gothenburg, Sweden: Varieties of Democracy Institute), accessed April 30, 2020, <https://www.v-dem.net/en/>.

exploration of natural gas while its reserves dwindled. Bolivia's trade balance fell to a deficit as natural gas reserves fell, and commodity prices dropped. Overall, this characteristic of the resource curse was the hardest for Bolivia to overcome.

In comparison, both countries ramped up hydrocarbon extraction and production as manufacturing stagnated. Both Andean nations also relied on foreign manufacturers like China to supply their emerging consumer markets. However, Ecuador's tax revenue did not keep up with spending, and the government filled the gaps with Chinese loans. Bolivia did not use much external lending, but as a result, exploration may have been underfunded.

4. Characteristic 4: High Government Spending

The availability of Chinese loans reduced Ecuador's incentives to save during the Correa administration. Ecuador's social spending was below Latin American averages when Correa took office, and he increased spending perhaps too quickly without any safeguards in the form of foreign reserves. The reported high savings that Ecuador accumulated were in reality used to build much-needed infrastructure, but overall Ecuador overspent and did not save enough for falling oil prices.

Bolivia increased foreign reserves and spent more shrewdly than Ecuador during the Morales administration. Despite his populist reputation, Morales did not heavily increase spending, but instead saved at a conservative rate. In fact, his administration's foreign reserves were considered optimal by the IMF. Moreover, Bolivia did not use Chinese loans to balance the budget. In general, Morales's economic plan freed Bolivia from this particular resource curse characteristic.

On the economic side, spending versus savings was the main difference between the two countries. Both countries experienced socioeconomic growth during the populist regimes of Correa and Morales, but only Bolivia has maintained that growth. Both economies were built to take advantage of the commodity boom, but only Bolivia's economy was constructed to withstand the bust by saving resource rents during the commodity boom to prepare for the bust. Figure 24 displays total reserves as a % of total external debt for both countries. The figure demonstrates that Bolivia dipped into its

foreign reserves while hydrocarbon prices dropped, but Ecuador never built in a safeguard for the bust because it relied on Chinese lending.

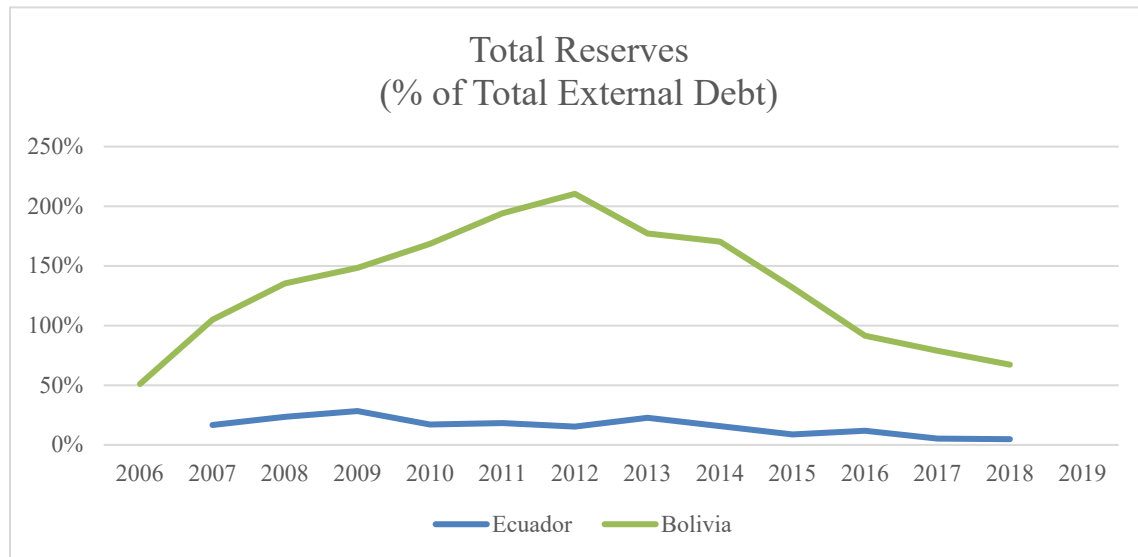


Figure 28. Total Reserves as a % of Total External Debt.²⁴²

5. Characteristic 5: Misguided Public Works

Chinese loans exacerbated white elephant projects in Ecuador because they garnered less accountability, added surplus funds to invest, and required Chinese construction. Evidence from Chapter II suggests that Chinese loans prompted less accountability from Ecuadorian taxpayers, and therefore more freedom for the Correa administration to spend on political projects. As previously discussed, Ecuador needed to invest in infrastructure. However, Ecuador's public works became misguided mega-projects when Chinese capital was introduced. A large portion of the loans included conditions to use Chinese construction, which meant higher levels of expertise and technology, but Ecuadorians did not receive a technology transfer. Additionally, many of the projects—including the Coca Codo Sinclair dam—encountered major issues.

²⁴² Adapted from CEIC Data, Ceicdata.com.

The Morales administration had plans to build several mega-hydroelectric projects in Bolivia, but the plans were thwarted because of pushback from the Bolivian population. The controversial projects that Morales did build were relatively small, and his administration's strong record in building hospitals suggests that Bolivia's public works were mostly successful.

When comparing the two countries, the evidence demonstrates that Bolivia would have built similar mega-projects if it had secured Chinese lending and gained the acceptance of the population. Early on during Morales's presidency, China was reluctant to loan to Bolivia. However, even when Morales secured a loan for a mega-project towards the end of his presidency, he received pushback from the population. For these reasons, Chinese loans appeared to be the key factor responsible for the augmented projects in Ecuador.

D. THEORETICAL TAKEAWAYS AND ALTERNATIVE EXPLANATIONS

In line with the central findings from the case studies, several theoretical takeaways emerge and can possibly be applied to other developing resource-rich countries in Latin America and the rest of the world.

First, Chinese loans, while seemingly granting countries significant independence in the use of the funds in the short-term, nonetheless seem to exacerbate poor policy choices on the part of borrowing governments. Chinese loans are considered a form of patient capital because they do not place many conditions on borrowers. This could give responsible governments the economic freedom they need to accelerate growth, but the lack of oversight may instead stunt long-term economic growth in exchange for short-term political gains, as it did in Ecuador.

Second, although political leaders need not automatically fall into corruption and authoritarianism by merely accepting the loans, the particular structure and the opaqueness of these loans do seem to incentivize particular institutional and economic dynamics, similar to the fashion in which natural resource wealth operates. While not inescapable, these pitfalls become more probable.

Third, enacting policies that ensure economic sustainability and independence, on the other hand, seems to be a much more effective solution. While allowing the country to weather the storm of a bust, it also seems to generate incentives to increase institutional effectiveness. When a country becomes less dependent on external debt, it is not economically exposed to problems such as capital flight or a reduction in Chinese lending. Bolivia's choice to save foreign reserves made it less dependent on China and other foreign lenders such as the United States, the IMF, or private capital.

Finally, Chinese loans may not have the conditionality of traditional lending from the west, but the loans do have conditions and are not altruistic. China secures future resources with loan-for-oil deals. Additionally, the loans help build new supply chains that funnel primary resources to China's large population and put excess labor to work overseas.

Altogether, the findings of this research point to a significant association between Chinese lending and the resource curse in Latin American economies. This conclusion is supported by analysis of the key dimensions of the resource curse. However, other factors that this thesis is unable to account for may have also heightened this association. In particular, while Correa and Morales represented similar cases of far-left politics, there may nonetheless be key differences between the two leaders that contributed to exacerbating the resource curse in Ecuador and ameliorating it in Bolivia. Such differences may stem either from their leadership qualities or from their ties to civil society, both or either of which may have constrained Morales's behavior in distinct ways. Additionally, Correa may have had his hands tied politically and economically. Ecuador's social spending and infrastructure quality was below average in Latin America before his time in office. After defaulting on Western loans, Correa may not have had many creditors available to solve Ecuador's deficiencies.

E. RECOMMENDATIONS AND FURTHER RESEARCH

This study's findings suggest that, for resource-rich countries, establishing savings mechanisms during periods of boom may better enable Latin American economies to weather moments of economic crisis. When resource-rich countries reduce foreign

influence and avoid unsustainable debt, they can more easily sustain growth and avoid the pitfalls of the resource curse. Savings mechanisms that are recommended by the IMF such as foreign reserves and sovereign wealth funds can smooth budget deficits during commodity bust cycles. These funds also encourage sustainable social spending that reduces poverty and inequality, and decreases the likelihood of tough austerity measures. Additionally, resource-rich countries must find the right balance between nationalization and privatization that works for their specific situation. Nationalized companies can be more profitable, but countries must have effective institutions to oversee operations, prevent corruption, and encourage environmentally friendly exploration.

This thesis also acknowledges that the United States and other lenders must provide an alternative to Chinese lending that fosters economic independence, diversification, and industrialization. In 2018, the Better Utilization of Investment Leading to Development Act—or BUILD Act—was passed in order to fund the United States International Development Finance Corporation (USIDFC). The USIDFC is a partial response to China’s bilateral loans; however, instead of prioritizing state-led development, it “offers a private sector, market-based solution” to developing countries.²⁴³ Nonetheless, the \$60 billion funding for USIDFC cannot compete with China on its own. To curtail increasing Chinese economic influence, the United States can consider reinforcing the United States Export-Import Bank and increasing leadership in multilateral development banks.²⁴⁴ In addition, the United States and other lenders may also consider moving away from the requirement of harsh austerity measures that could backfire in resource-rich countries, and may push away governments aiming to implement redistributive policies. Overall, instead of asking leaders from developing countries to choose between the United States and China, United States policymakers must find solutions that are attractive to both the private sector and the state capitalist model.

²⁴³ Daniel F. Runde and Romina Bandura, “The BUILD Act Has Passed: What’s Next?,” Center for Strategic and International Studies, accessed June 1, 2020, <https://www.csis.org/analysis/build-act-has-passed-whats-next>.

²⁴⁴ Runde and Bandura.

Finally, the continuation of Chinese lending in contexts such as China's Belt and Road Initiative provides many opportunities for further research into issues discussed in this thesis. The motivations of countries who accept loans are not fully examined in this thesis, and neither is the competitiveness of other lending options. Further research could also be focused on specific natural resources other than hydrocarbons, and how they relate to the resource curse and Chinese loans. In the end, Chinese loans by themselves are mostly innocuous; but combined with poor policies of borrowers and traps like the resource curse, Chinese loans have the potential to derail once promising economies.

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