Between Resource Nationalism and Resource Liberalism: A Qualitative Comparative Analysis of Different Approaches to Lithium Governance in the 'Lithium Triangle' Region

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Abstract

In the world's quest for a greener and more sustainable future, lithium has emerged as a critical metal. In fact, the majority of the world's lithium resources could be found in the so-called 'Lithium Triangle' region – comprising Argentina, Chile and Bolivia. Consequently, this region's role in facilitating global sustainable growth becomes increasingly pivotal, especially in the (near) future. It is therefore of crucial importance for all stakeholders involved in the global supply chain of lithium-ion batteries to understand what drives and shapes lithium governance in the 'Lithium Triangle' countries. To achieve the latter, this thesis argues that an explanation of a country's approach to lithium governance should go beyond a narrow focus on its relationship with commodity prices. Instead, it should engage with a wide range of ideological, cultural, social, historical and economic factors too. By taking such a holistic approach, this thesis seeks to explain differences in lithium governance and, subsequently, the attitude towards transnational lithium companies (TLCs) among the 'Lithium Triangle' countries observed over the past fifteen years. As a result, this thesis not only contributes to an increased understanding of lithium governance within the 'Lithium Triangle' region. More generally, it also sheds light on what factors influence a country's natural resource governance, placing it somewhere on the continuum between resource nationalism and resource liberalism.

Keywords

'Lithium Triangle', lithium governance, resource nationalism, resource liberalism, TLCs

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1. Introduction

In the world's quest for a greener and more sustainable future, lithium – by some referred to as the new 'white gold' or 'white oil' – has emerged as a critical metal. Its use in lithium-ion batteries, which are important components of renewable energy storage systems and electric vehicles, has caused the demand for lithium to surge to unprecedented heights over the past fifteen years. Moreover, as the green transition accelerates, the demand for lithium is even expected to increase by 500% by 2030 (Gomes, 2023). This rapid growth in demand is mainly driven by growing competition among all stakeholders involved in the global supply chain of lithium-ion batteries, seeking to secure their access to this 'white oil'.[1] In fact, while lithium resources are widely distributed and abundant around the world, supply is unlikely to keep up with this rapidly rising demand (Sanchez- Lopez, 2023).

According to estimates, 53% of the world's identified lithium resources are located in one geographical area: the so-called 'Lithium Triangle', comprised of Argentina, Bolivia and Chile (Figure 1) (USGS, 2023).[2] Within this region, lithium was first discovered in the 1960s. Shortly after its discovery, small-scale commercial extraction operations were launched in Argentina and Chile. Nevertheless, it was not until the 1990s that the first large-scale operations commenced, one in Argentina and two in Chile (Mejia-Muñoz & Babidge, 2023). In addition to the abundant presence of lithium, this geographical area has a comparative advantage over other lithium-producing countries, as the 'Lithium Triangle' only contains brine-based lithium deposits. Furthermore, in this geological formation, the mineral is present in a relatively high concentration and the extraction process is much cheaper compared to other geological formations in which lithium occurs, such as hard-rocks and clay (Desjardins, 2015). Therefore, this region has become a significant hub for the global lithium industry, attracting a variety of transnational lithium companies – hereinafter referred to as TLCs – that seek to extract the mineral. In fact, many of the TLCs that dominate the oligopolistic lithium industry have operations running in the 'Lithium Triangle' (MacDonald, 2023).[3]

However, despite the increasing foreign interest in their respective lithium resources, Argentina, Bolivia and Chile have exhibited contrasting attitudes towards TLCs over the past fifteen years. More generally, these countries have pursued different approaches regarding their lithium governance. While Argentina has been more open towards TLCs pursuing a strategy of resource liberalism, Bolivia's strategy has clearly been one of resource nationalism and could thus be characterized as protectionist. Moreover, in Bolivia, TLCs were generally kept out and state-owned companies and state-led

[1] These stakeholders include, among others, transnational lithium companies (TLCs), battery manufacturers, electric vehicle manufacturers, electronic manufacturers and governments.
[2] Bolivia holds 22%, Argentina 20% and Chile 11% of the world's identified lithium resources. Other countries that hold significant amounts are the United States (12%), Australia (7,9%) and China (6,8%) (USGS, 2023).
[3] These TLCs include Albemarle (US), SQM (Chile), Gangfeng (China), Tianqi (China) and Mineral Resources (Australia) (Barrera & Kelly, 2023).

industrialization were prioritized. Finally, Chile's lithium governance could be placed somewhere in the middle of this continuum between resource nationalism and resource liberalism. While TLCs were allowed to operate within the country, they could only do so under strict state control. An interesting question that follows from this problem statement and one this thesis aims to answer is the following:

Why do the three countries in the 'Lithium Triangle' – Argentina, Bolivia and Chile – have exhibited different approaches in terms of their lithium governance and, subsequently, their attitude towards TLCs over the past fifteen years?

To provide a thorough answer to the research question, this research is divided into several chapters. First of all, the next chapter elaborates on the debate surrounding natural resource governance. Moreover, it discusses the concepts of resource nationalism and resource liberalism – the two ends of the continuum underlying natural resource governance – both within a more general and Latin American context. The following chapter proceeds to provide the analytical foundation of this thesis. Within this chapter, an analytical framework that builds upon the literature review is presented. Furthermore, this framework guides the in-depth case analyses in the three empirical chapters thereafter. Moreover, these three chapters critically analyse factors that have shaped lithium governance within each 'Lithium Triangle' country over the past fifteen years. In conclusion, this thesis aims to provide a clear answer to the research question. Therefore, it highlights some of the possible explanations that could account for the different approaches in terms of lithium governance and their attitude towards TLCs witnessed among the 'Lithium Triangle' countries over the past fifteen years.

Figure 1: The 'Lithium Triangle' region (The Economist, 2017)

2. Literature review

In order to establish a thorough theoretical and conceptual basis for this thesis, the following chapter elaborates on the ongoing debate about natural resource governance. Moreover, it explores the concepts of resource nationalism and resource liberalism, which represent two opposing approaches on the 'continuum of natural resource governance'. In addition, these concepts are examined in the broader context of Latin America.

2.1 Natural resource governance: a continuum between resource nationalism and resource liberalism

Before elaborating on the natural resource governance debate, it is necessary to provide a definition of some important and related concepts. First of all, natural resources. According to Sanders et al. (2019, p.3), "natural resources are the raw materials or natural assets that occur in nature and that can be used for economic production or consumption". Moreover, due to its uneven distribution across the globe, natural resource endowments have historically been the foundation of power, conflict, and wealth as well as an important driver for trade between and among nations. Spurred by industrialization in the nineteenth century and further accelerated by the economic globalization of the end twentieth/start of the twenty-first century, commodity markets have become global in scale. In fact, this caused resource-rich states to face certain choices regarding the governance of their natural resources and their openness towards the international markets and/or actors (Koch & Perreault, 2019, p. 616).

From this, the question of what really constitutes natural resource governance emerges. For Wilson (2011), a country's natural resource governance consists of a range of policies, regulations, norms, and institutions that together determine how natural resources are controlled and managed.[4] Moreover, he points out that, broadly speaking, two contrasting approaches to natural resource governance could be identified, namely resource nationalism and resource liberalism. Haslam (2010, p.211) provides a similar definition of natural resource governance, which according to him represents "the choice open to the governments along a continuum between an ideally liberal environment with few regulations and an ideally interventionist environment in which the state actively manages the contribution of foreign investments to development – including nationalizing it". In the following sub-sections, I will shortly elaborate on these two ends of the natural resource governance continuum, namely resource nationalism and resource liberalism. More specifically, as this is in line with this thesis' research, these

[4] This can involve the management of a varied range of natural resources. From renewable resources such as forests, water, fisheries and renewable energy (wind, solar and hydropower) to non-renewable resources like fossil fuels (coal, oil and natural gas) and minerals (gold, silver, copper and, of course, lithium).

sections focus on different explanations given by scholars to understand a government's choice between pursuing either a nationalist or liberal approach to natural resource governance.

2.1.1 Resource nationalism

Within the established academic literature on natural resource governance, scholars widely disagree on the factors that explain a government's choice to pursue a resource-nationalist approach (Ostrowski, 2023, p.1).

Joffé et al. (2009, p.4) describe the dominant economic explanation of resource nationalism. They understand this approach to natural resource governance as "the expression, by states, of their determination to gain the maximum national advantages from the exploitation of national resource." Moreover, the economic explanation argues that periods of resource nationalism are inextricably linked to 'boom' periods of commodity prices. That is, during times of high commodity prices, resource-rich nations have more bargaining power compared to (foreign) companies, and therefore, they are in a better position to negotiate favourable terms. In addition, high commodity prices increase the incentive for governments to take full economic advantage of their natural resource endowments. Hence, high commodity prices fuel a government's decision to adopt a resource-nationalist approach. From this market-based perspective, the relationship between resource-rich states and (foreign) extractive companies is portrayed as a zero-sum game. That is, when governments increase their control and/or benefits from their natural resources, this comes at the expense of (foreign) extractive companies. Therefore, as Vivoda (2009) emphasizes, periods of resource nationalism – or in the worst case, the act of full nationalization – threatens (foreign) extractive companies' operations in these countries and subsequently their long-term viability.[5]

Despite the fact that some academics seem to disagree on this causal link between resource nationalism and commodity prices (Kennedy and Tiede, 2011; Guriev et al., 2011), most academics agree on the connection between resource nationalism and high commodity prices. Nevertheless, some authors emphasize that this economic explanation of resource nationalism is rather narrow. Bremmer and Johnston (2009, p.150), for example, argue that this economic understanding offers "little nuance" when it comes to explaining different cases of resource nationalism. In fact, according to them, there are "at least four variants which differ in the factors motivating the [resource-nationalist] policy".

[5] It is important to note that a nationalist approach to natural resource governance does not always include the full nationalization – transfer of complete ownership to the state – of natural resources or extractive companies. This only represents the most extreme cases of resource nationalism.

The most interesting variants – apart from the economic variant – that they mention are 'revolutionary' and 'legacy' resource nationalism. In the former, resource-nationalist policies are the result of wider political and social disruptions that are not necessarily linked to extractive industries. More fundamentally, these revolutionary resource nationalisms are often fuelled by anti-imperial sentiments that have followed from a long history of suffering injustices. In addition, there is a variant of 'legacy' resource nationalism. In these cases, a government's choice to pursue resource-nationalist policies follows when a particular industry or resource is – or has historically been – "central to the national political and cultural identity". A final variant which Johnston and Bremmer mention is that of 'soft' resource nationalism. This variant explains why tendencies of resource nationalism could also be found in developed resource-rich countries like Canada and Australia and is not limited to developing countries.

Building on Bremmer and Johnston's explanation, Koch and Perreault (2019) note that each country has its own ideological, cultural and historical context. Therefore, all these factors should be taken into account when explaining resource nationalism. Similarly, Wilson (2015, p.402) adds that "the role of political factors is not systematically explored". Moreover, Wilson argues that resource nationalism is inherently linked to the political ideology of redistributive policies. Childs (2016, p.544) very much agrees with this ideological/political explanation as he emphazises that "resource nationalism symbolically and materially equated increased national control of extracted resources with the more equitable distribution of their benefits".

Nevertheless, despite disagreement on the exact explanation of resource nationalism among academics, there is considerable consensus on what tools or policies could be dubbed as resource nationalism. Ward (2009, p.8-9) offers a comprehensive list which, among other things, includes the termination or renegotiation of existing contracts, full or partial nationalization, increase in taxes and royalties, restrictions on natural resource exports, and the industrialization of domestic extractive industries – through which value-added products could be exported with higher revenues rather than raw materials.

2.1.2 Resource liberalism

On the opposite end of the natural resource governance continuum, there is resource liberalism. Contrary to the concept of resource nationalism, resource liberalism is oftentimes not explicitly mentioned or discussed in the academic literature. Nevertheless, much of the literature on resource nationalism contains implicit insights into the concept of resource liberalism.

In fact, Monaldi (2020, p.4) explains that, from a mere economic perspective, periods of low commodity prices oftentimes lead to fiscal deficits and declining investments. As a result, (foreign)

extractive companies have much more leverage in state-company negotiations, pushing governments to adopt resource-liberal policies. Ward (2009, p.6) describes this as "a situation in which the interests of private enterprises so dominate negotiations with host country governments over access to or management of natural resources that the public interest of the nation endowed with the resources is squeezed into a corner". Hence, from this merely negative understanding of resource liberalism, governments are not really left with an autonomous 'choice'. Instead, the choice of pursuing a resource-liberal agenda is forced through the exogenous and structural factor of low commodity prices and, subsequently, the dominant position of (foreign) extractive companies.

Beyond such a negative explanation, Hay (2009) adopts a more optimistic and political/ideological-economic viewpoint. Moreover, he emphasizes that the adoption of resource liberal agendas is the result of neoliberal ideologies embraced by the incumbent government. Moreover, neoliberalism – understood as a political-economic ideology – advocates for the effectiveness of 'free' markets, limited government intervention, deregulation, and privatization. From this point of view, prioritizing (foreign) companies in extractive industries generate the greatest benefits from natural resources because "firms are more productive than nationalized enterprises" (Sinnott et al., 2010, p.32). In fact, (foreign) extractive companies bring the capital, technology, and knowledge that resource-rich countries often lack to adequately develop their extractive industries.

Following this neoliberal thought, Wilson (2011, p.285) describes resource liberalism as an approach to resource governance that relies "on international market mechanisms for the development of its natural resources through relatively liberal trade and investment policies". In fact, this approach emphasizes that the greatest benefits from natural resources are experienced when openness to the international market is optimized, and state intervention is minimized (Haselip and Hilson, 2005). In addition, pointing to the 'comparative advantage' theory, which holds that countries maximize their economic gains if they specialize in products they can produce and export cheaply, it favours the export of raw materials over processes of domestic industrialization (Wikan, 2015).

Regardless of which explanation, resource-liberal policies include policies that attract foreign companies such as tax breaks (Kumar, 1990) or trade liberalization by reducing trade barriers, tariffs and export restrictions or other deregulating measures.

2.2 The "volatile history" of natural resource governance in Latin America

Not surprisingly, the established scholarship on natural resource governance oftentimes discusses the Latin America case to demonstrate the complex interplay between resource nationalism and resource liberalism. In fact, the region's natural resource governance – especially considering the last six decades – could be characterized by its "volatile history" (Monaldi, 2020, p.20). Moreover, resource

nationalism in Latin America surged in the 1960s and 1970s. Rosales (2017, p.104) explains how in Ecuador – aside from high oil prices – political ideological goals of industrialization and resource sovereignty caused resource-nationalist policies in the oil sector. By contrast, Monaldi (2020, p.4) explains that, starting in the 1990s, many countries in the region embraced resource-liberal policies due to low commodity prices and fiscal deficits. Moreover, structural adjustment measures imposed by international organisations such as the IMF and the World Bank deepened liberal policies within extractive industries (Liverman and Villas, 2006). Furthermore, the commodity boom after the mid-2000s initiated a phase of re-nationalization in which many governments re-established their interventionist role within their extractive industries (Haslam and Heidrich 2016, p.8).[6] Since 2014, the decline in commodity prices has sparked a new wave of resource liberalism (Monaldi, 2020).

However, as Rosales (2017) points out, we should understand a country's natural resource governance beyond a mere economic perspective. That is, when explaining a government's choice to pursue a particular approach to the governance of its resources, we should go beyond an explanation that primarily focuses on commodity prices. In fact, especially in the case of Latin America – a region with a long and controversial history of resource extraction – the debate on the 'best' approach to natural resource governance is much more fundamental and complex.

Moreover, taking a decolonial approach, Gudynas (2013, p.26) emphasises that Latin American countries have since their colonization consistently been – and are still – "subordinated to transnational companies and globalisation" with all its negative social and environmental consequences. Likewise, he argues that Latin American extractive industries continue to fuel global structures of capitalism, advancing countries in the global North while further marginalizing the position of resource-rich countries in the region. Although this would generally be an argument in favour of resource-nationalist policies, Gudynas' critique – and with him that of others like Svampa (2015) and Acosta (2013) – is more fundamental. In fact, they emphasize that resource-nationalist policies, employed by progressive governments from the mid-2000s, equally relied on extractivist practices, just as resource-liberal policies did in the 1990s.[7] The only thing that changed was that this time, these extractivist policies were 'justified' under the guise of a more social agenda focused on redistribution and poverty reduction. Hence, for these authors, the only 'best' approach to natural resource governance is one that leaves the natural resources in the ground.

[6] The commodity boom was a period – roughly between 2004 and 2014 – in which many resource-rich countries economically benefited from high commodity prices, which were driven by rising demand from upcoming markets like China and India (Balakrishnan & Toscani, 2018).

[7] This reliance on conventional extractivist policies used by progressive left-wing governments from the mid-2000s is called 'neo-extractivism' (Gudynas, 2013).

Nevertheless, the fact remains the economies of many Latin American countries are heavily dependent on their primary sector (Gorenstein & Ortiz, 2018). Advocates of both the resource-nationalist and resource-liberal sides of the natural resource governance continuum acknowledge this – something which Svampa (2015, p.65) refers to as 'the commodity consensus'. However, Castro et al. (2016, p.2) emphasize that despite this 'commodity consensus' there is a range of topics on which resource-liberals and resource-nationalists have differing views, including "the access to natural resources, the distribution and use of revenues, and the distribution, compensation and prevention of environmental and social costs". In Latin America, these questions have emerged – and continue to serve – as the foundation of the debate on what constitutes the 'best' approach to natural resource governance in the region.

2.3 Research gap

Building upon the aforementioned literature, the 'Lithium Triangle' functions as an illuminating case study to create a deeper understanding of what factors drive and shape a country's natural resource governance. Moreover, the significant increase in demand and price of lithium over the past fifteen years caused lithium governance to appear at the forefront of public discourse in Argentina, Bolivia, and Chile. In other words, the question that has emerged – and still dominates the debate – is what to do with this new 'white oil'. Interestingly, roughly three different outcomes could be observed when considering the lithium governance of the 'Lithium Triangle' countries over the past fifteen years. While Argentina opted for a resource-liberal approach, Bolivia by contrast pursued a resource-nationalist agenda. Chile's lithium governance can be placed somewhere in the middle of this continuum between resource nationalism and resource liberalism.

The question that now arises is what factors have influenced lithium governance within these three countries. Furthermore, what are the explanatory factors that could account for the different approaches to lithium observed over the past fifteen years? Moreover, given the fact that the rapidly increased lithium price applied to the entire 'Lithium Triangle' region, an explanation of differences in lithium governance should go beyond a narrow economic explanation that focuses on commodity prices. It is therefore that this thesis builds upon the work of Koch and Perrault (2019) and argues for a more holistic explanation of natural resource governance which engages – besides economic factors – with ideological, cultural, social, and historical factors too.

Despite its recent popularity, a significant amount of literature has already been written on the 'Lithium Triangle'. Nevertheless, there is not much literature that aims to provide such a holistic explanation of the differences in lithium governance in the 'Lithium Triangle' region. Moreover, while some authors give more extensive insights on one particular country – like Obaya (2021) on the Bolivian case – others *do* compare but focus on one particular explanatory factor as its unit of analysis.

Barandiarán (2019), for example, compares so-called 'development imaginaries' – which could be seen as an ideological/ political factor – within lithium governance in the region. In addition, Hernandez and Newell (2022) "explore the social and colonial dynamics" associated with lithium governance in the three countries. This research builds upon these – and other – studies as it aims to arrive at a more holistic explanation of the differences in lithium governance within the region.

3. Analytical framework

Drawing on the different explanations for resource nationalism and resource liberalism discussed in the previous chapter, this chapter lays down the analytical basis for this research. As stated, this thesis aims to arrive at a holistic explanation of the differences in lithium governance within the 'Lithium Triangle' region. Moreover, one that encompasses not only economic factors but also other relevant factors such as historical context, political ideologies, social considerations and other cultural aspects. By doing so, this thesis not only contributes to an increased understanding of lithium governance within the 'Lithium Triangle' region. More generally, it also sheds light on what factors influence a country's natural resource governance placing it somewhere on the continuum between resource liberalism and resource nationalism.

3.1 Response and explanatory factors

Building on much of the literature presented in the last chapter, Haslam and Heidrich have made a noteworthy effort "to identify a series of factors, that depending on their values, can constitute either constraints or opportunities for resource nationalism" (2016, p.233). In other words, they have identified a set of factors which they use as a framework to explain a country's resource-nationalist behaviour. In fact, this thesis borrows from them this method of analysis but alters it slightly.

Moreover, within this thesis, a (different but partly overlapping) set of factors is identified that could explain a country's lithium governance (see Figure 2). Each factor, depending on its value, influences the place of a country's lithium governance on the continuum between resource liberalism to resource nationalism, and as a result, influences its attitude towards TLCs. In addition, these sets of factors, each of which constitutes a necessary yet insufficient explanation, are organized along three different categories: socio-historical factors, political factors and economic factors. Together, however, they form a comprehensive – yet not exhaustive – set of explanatory factors that allow us to understand why one country has exhibited a more nationalist or liberal approach to lithium governance. Subsequently, it allows us to understand why the three countries have differed in their attitude towards TLCs over the past fifteen years. The following sub-section first elaborates on the two response factors (lithium governance and attitude towards TLCs). Thereafter, each set of explanatory factors (socio-historical, political and economic) is shortly discussed.

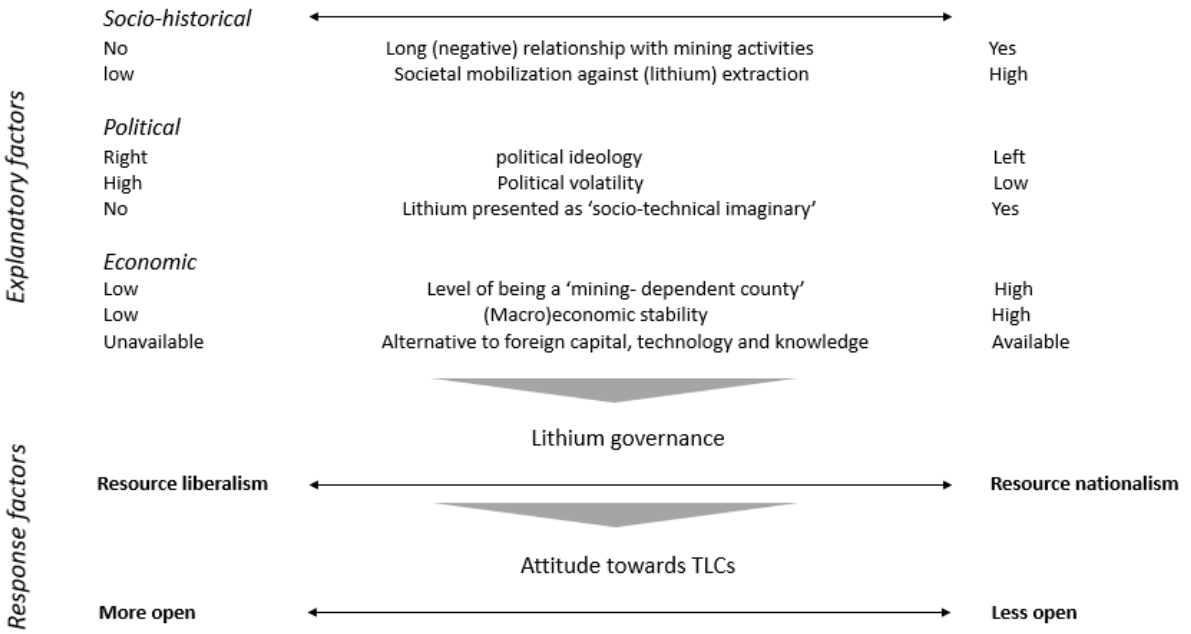

Figure 2: Analytical framework used in this thesis (inspired by Haslam & Heidrich, 2016; own elaboration).

3.1.1 Response factors: lithium governance and attitude towards TLCs

For the sake of this thesis' argument, it is important to first elaborate on the relationship between the two response factors: *lithium governance* and *attitude towards TLCs*. As indicated in the previous chapter, resource-rich countries are faced with certain choices regarding the governance of natural resources (Wilson, 2011; Haslam, 2010). Similarly, lithium-rich countries also must make choices regarding their lithium resources. In fact, in this thesis, lithium governance is understood – following Wilson's (2011) definition of natural resource governance – as the range of policies, regulations, norms and institutions that together determine how a country's lithium resources are controlled and managed. Most obviously, this includes a country's legal and regulatory framework with regard to lithium.[8] In addition, specific policy tools and measures on lithium implemented by governments are also part of a country's lithium governance.[9] More generally, it also encompasses political discourse on lithium, as it shapes the formulation of policies, decision-making processes, and the development of a country's lithium resources.

From this, a state can adopt a nationalist approach to lithium governance in which it increases state control/ownership and implements more stringent regulations regarding its lithium resources. On the other hand, a state can adopt a liberal approach in which it loosens its lithium regulations and

[8] This provides the legal foundation for lithium governance. It, among other things, sets the rules surrounding ownership, mining procedures, royalties and taxation, (community) rights and environmental and health protection.
[9] These are more general strategies that governments implement regarding lithium. Oftentimes this includes long-term 'national lithium strategies'.

decreases state control/ownership over resources. In fact, either way, private companies are directly affected by the approaches to lithium governance taken by states. Moreover, while a nationalist approach hinders the involvement of private companies in the domestic lithium industry, a liberal approach tends to be more open towards private companies.

In addition, since the oligopolist lithium industry consists of merely a few large transnational lithium companies (TLCs), a greater emphasis on private companies inherently means a more open attitude towards TLCs. Therefore, a country's lithium governance – expressed somewhere along the continuum between resource-liberal and resource-nationalist – to a great extent mirrors a country's attitude toward TLCs.

3.1.2 Socio-historical explanatory factors

The first set of explanatory factors that allows one to explain a country's lithium governance are socio-historical factors. First, when a country has experienced a *long (negative) relationship with mining activities* – often dating back to colonial times – it is more likely for this particular country to be more suspicious of TLCs. Moreover, viewed from this historical perspective, lithium governance can turn nationalist when used as a manifestation of "resentment toward powerful foreigners intending on appropriating national wealth" (Koch and Perreault, 2019, p. 621). By contrast, when a country has historically had fewer or less controversial experiences with mining, it will probably have a more open attitude towards TLCs.

Furthermore, this historical resentment toward foreign powers is often deeply ingrained into the culture of mining-dependent countries. Consequently, "resource nationalism is not limited to elite or state-scale actors" as foreign involvement in extractive industries are commonly challenged by local communities and other social movements that are concerned about social inclusion and environmental justice (Koch and Perreault, 2019, p. 612). This resistance is often aimed at either foreign extractive companies directly or at governments for not imposing strict rules on those foreign companies. Hence, *societal mobilization against lithium extraction* could constitute a push factor for a government to embrace an approach to lithium governance that is more resource-nationalist and therefore less open towards TLCs (Haslam and Heidrich, 2016, p.231).

3.1.3 Political explanatory factors

The first explanatory factor under the umbrella of 'political factors' is the *political ideology* (left/right divide) of the incumbent government. As Haslam and Heidrich (2016, p.230) emphasize, ideologically left governments bring with them "a different worldview that prioritizes social justice, economic inclusion, participatory democracy, and an enlarged role for the state, national ownership of resources and anti-imperialism". By contrast, more right-leaning governments tend to embrace (neo)liberal

political traditions that generally emphasize free-market capitalism and limited government intervention in the economy. As a result, right-wing governments would generally be more open to TLCs than left-wing governments.

A second factor, which although highly related to the first should be mentioned separately, is the degree of *political volatility* within a given country. Frequent changes in political power – and/or ideology – may cause changes in lithium governance strategies, which is particularly detrimental for governments seeking a resource-nationalist agenda. Moreover, as many resource-nationalist states want to decrease their dependency on foreign companies they strive for a process of state-led industrialization. However, the latter oftentimes is a lengthy process and therefore part of a government's multi-year (lithium) agenda. Hence, while a left-leaning government can be a push factor for resource nationalism and implement such a strategy of state-led industrialization, this strategy could be rejected/neglected by a new (right-wing) administration as soon as it enters its office. Therefore, over a longer period of time, a high degree of political volatility could explain why a country does not manage to pursue a nationalist approach to lithium governance.

Finally, another related political factor – one which particularly focuses on political discourse – is the frequency at which *lithium is presented as a 'socio-technical imaginary'* or as Barandiarán (2019, p.382) states "the subject of a socio-technical imaginary that reimagines how mining can serve development goals". Moreover, from this developmental viewpoint, large-scale investments in scientific and technological development enable the domestic industrialization of lithium which, in turn, provides a prosperous and sovereign future independent from – or at least with the minimal involvement of – TLCs. In fact, by frequently reiterating such *'socio-technical imaginaries'* – through presidential speeches or other media – (left-wing) governments aim to justify and legitimize a state-led and resource-based developing programme.

3.1.4 Economic explanatory factors

Finally, there is a set of economic factors that shape and drive a country's lithium governance.[10] The first economic factor that could explain a country's lithium governance is *the level of being a 'mining-dependent country'*. Moreover, Monaldi (2020, p.8) mentions that "countries that are significant net exporters and more fiscally dependent on resource revenues are more likely to be resource-nationalist". Consequently, countries that are – or have historically been – more dependent on mining

[10] As mentioned in the literature review, the price of commodities greatly affects a country's natural resource governance. However, since this thesis focuses on the resource governance of one particular resource, namely lithium, and considering that the price of lithium did not differ between the 'Lithium Triangle' countries, this cannot be an explanatory factor for the differences in lithium governance between Argentina, Bolivia and Chile.

will probably tend to maximize control over their lithium resources too. As a result, they will be less open to TLCs.

A second economic factor is *(macro)economic stability.* Moreover, (macro)economic stability – among other things characterized by low inflation rates, steady economic growth, and a stable currency – itself is not the sole driver of a country's natural resource governance. However, it *does* create favourable conditions for a country to implement a resource-nationalist approach to lithium governance. That is, (macro)economic stability can increase a government's (fiscal) capacity to pursue a strategy of state-led industrialization, while (macro)instability oftentimes creates a dependency on foreign investments. In a way, it is closely related to the final economic factor, which is the availability of an *alternative to foreign capital, technology, and knowledge.* McElwee (2018, p. 103) mentions that due to a lack of capital domestically, "foreign capital presents a means by which resource-rich countries can unlock the revenue potential of local endowments". In addition, resource-rich countries do often rely on foreign technology and knowledge due to a lack of it domestically. In fact, it would create more incentives for a government to alienate TLCs when "alternative sources of financing and technology necessary to develop and exploit natural resources" are available domestically (Haslam and Heidrich, 2016, p. 229).

Figure 3 summarizes the analytical framework that this thesis uses. Though these sets of factors do not represent an exhaustive list and should each be perceived as a necessary yet insufficient explanation, together they provide a thorough explanation for a country's approach to lithium governance, and, subsequently, its attitude towards TLCs. The following empirical chapters integrate all of these factors on a case-by-case basis, so a coherent explanation can be given for the different approaches to lithium governance exhibited by the 'Lithium Triangle' countries over the past fifteen years.

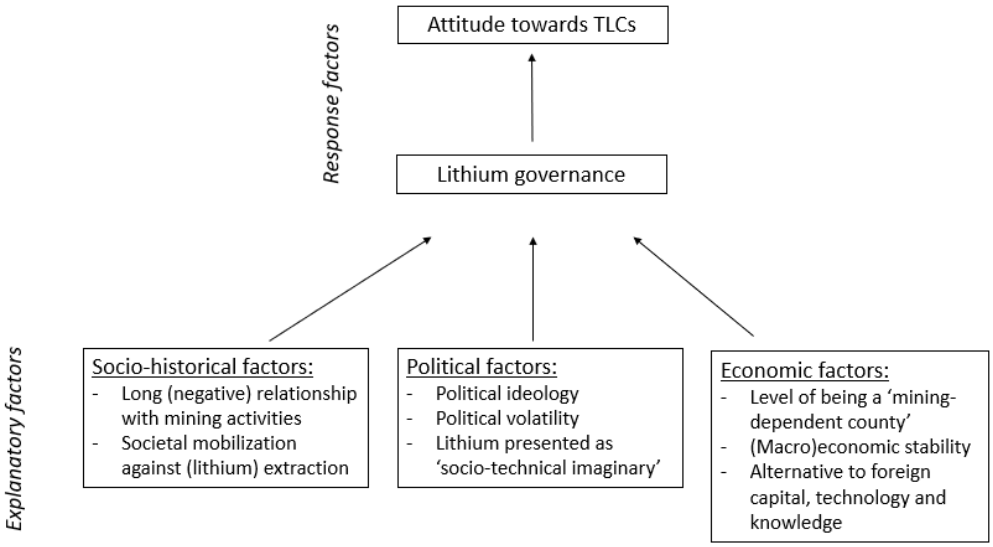

Figure 3: summary of the analytical framework used in this thesis (own elaboration)

3.2 Justification of case selection

So, why does this thesis engage with lithium governance in the 'lithium Triangle' countries? And why does it focus on the past fifteen-year period in particular?

First of all, as indicated earlier, lithium is a critical mineral in today's energy transition. Also, in the (near) future its demand will most likely continue to grow exponentially. Therefore, given the fact that the 'Lithium Triangle' region holds such a significant amount of the world's lithium resources, its role in facilitating global sustainable growth becomes increasingly pivotal. Moreover, lithium governance in the 'Lithium Triangle' countries affects the global availability and affordability of lithium. As such, changes in lithium governance within these countries have an effect on the global supply chain of lithium-ion batteries. It is therefore important for all stakeholders within this supply chain to understand what drives and shapes lithium governance in the 'Lithium Triangle' countries. Only by doing so, stakeholders could anticipate any future changes in the region's lithium governance, which will facilitate a smooth transition to green energy.

Second, even though the rapidly increasing lithium price applied to the entire region, Argentina, Bolivia and Chile have each pursued a different approach to lithium governance over the past fifteen years. Therefore, analysing lithium governance in the 'Lithium Triangle' region allows for an understanding of natural resource governance that goes beyond its relationship with commodity prices. In fact, this contributes to the current academic literature on natural resource governance.

Finally, in terms of the temporal scope of the case studies, this thesis focuses on the preceding fifteen-year period – 2008 till the present. Moreover, it is during this period that the demand for lithium has risen very rapidly, which in the 'Lithium Triangle' countries fuelled the public debate about how to 'best' manage this 'white oil'. In addition, in 2008 the former Bolivian President Evo Morales declared the industrialization of the country's lithium resources a 'national priority' – which could be considered the first step to his nationalist lithium agenda. Hence, this year functions as an interesting starting point for this analysis. However, although the focus lies on the past fifteen years, some historical data prior to this period will also be considered to strengthen the argument.

3.3 Methods of gathering data

Regarding the data, this thesis makes use of both primary and secondary sources. Primary data is mainly derived from authoritative sources such as policy documents, including national constitutions, mining laws and various other governmental records. These documents serve as the foundation for obtaining first-hand information about the legal and regulatory frameworks regarding lithium in the 'Lithium Triangle' countries. Additionally, a wide range of secondary sources are used to provide additional information about the socio-historical, political and economic context in the 'Lithium

Triangle' countries. Moreover, these secondary sources include book chapters, academic articles, newspaper articles and country reports.

4. Case study one: Bolivia

The mobilizing strength of the Bolivian population, which could be attributed to the fact that it has been a victim of an imperial model of extraction for the past 500 years, should be considered a push factor for the election of the first indigenous President Evo Morales. Subsequently, it could be considered an explanation for Bolivia's nationalist lithium governance starting from the second half of the zeroes. Moreover, the election of the left-wing Morales government in 2006 was seen by many Bolivians as a way to break with this (historical) pattern of exploitation and dependency. In addition, Morales' long tenure in power brought relative political stability to Bolivia, allowing him to push through his nationalist lithium strategy, which he legitimized through the frequent use of 'socio-technical imaginaries'. Furthermore, a fast-growing Bolivian economy – mainly due to a global commodity boom – led Morales to finance his nationalist plan of industrializing Bolivian lithium. Nevertheless, a lack of domestic expertise and an economic slowdown – as the commodity boom ended – forced him to moderate his radical lithium strategy and be – more than willing – open to TLCs. In sum, when considering lithium governance in Bolivia over the past fifteen years, it is evident that different socio-historical, political, and economic factors have shaped it.

4.1 Socio-historical factors

Bolivia's long exploitative history is vital for explaining the country's nationalist lithium governance over the past fifteen years. Moreover, throughout the years, this negative past has fuelled an anti-imperial sentiment among many Bolivians who feel their land was – and often still is – unjustifiably taken and exploited by strangers. In fact, this has led to a "high degree of popular mobilization, which made it exceptionally difficult for governments to implement unpopular reforms" (Brienen, 2016, p.83). Major societal mobilization against foreign interference in Bolivia's extractive industries – also in the infant lithium industry – illustrates this. Eventually, this mobilization opened doors for Morales' radical lithium strategy.

In fact, although the first lithium project in Bolivia was initiated only in 1989 (Valenzuela, 2019), Bolivia's relationship with resource extractivism dates back to colonial times, when the Spanish exploited the country's vast silver deposits. Symbolic of this exploitative past is the Cerro Rico – or 'rich hill' – in the Potosi region, which is famous for its rich deposits of silver, tin, lead and zinc. Moreover, the Spanish greatly exploited the hill leaving none of the profits to the local community. Furthermore, the indigenous population was forced to work in the mines, often under brutal conditions which led to the deaths of millions of indigenous people (Morales, 2010, p.12). Despite gaining independence from the Spanish at the beginning of the 19th century, Bolivia's economy remained based on resource extraction, with transnational companies reaping most of the profits from the nation's natural resources. Throughout all these years, this happened at the expense of the Bolivian people.

In the 1980s and 1990s, resource-liberal policies caused many of the state-owned mining, oil, and gas companies to be sold to transnational companies. For many Bolivians, this was yet another example of the country's marginal position vis-à-vis the "transnational capitalist class" (Postero, 2013, p.29). In fact, this long and controversial relationship with mining activities led much of the Bolivian population to oppose foreign – mainly 'Western' – involvement in its extractive industries.

Hence, when, in 1989, the Bolivian government – under President Pac Zamora's neoliberal control – authorized the Lithium Corporation of America (Lithco) to extract lithium from the Uyuni salt flat, huge protests erupted in the Potosi region.[11] As a result, the Bolivian government cancelled the project (Obaya, 2019). Moreover, this resistance of the Potosi people was part of a broader societal mobilization during the 1990s and early 2000s against foreign involvement in Bolivia's extractive industries. In fact, these societal uprisings played a key role in the rise of Morales' socialist Movimiento al Socialismo (MAS) and were, subsequently, used by Morales to legitimize its nationalist approach to natural resource governance. Similarly, Morales used this fierce resistance against lithium projects in the 1990s to justify its nationalist lithium governance (Arce & Rice, 2009).

When considering a more recent large-scale protest in Potosi, it becomes once again clear how much of an impact Bolivian society has on pushing Bolivian lithium governance to the nationalist end of the continuum. In October 2019, a deal between the Bolivian government and the German company ACI to establish a joint venture with Bolivia's state-owned lithium company Yacimientos de Litios Bolivianos (YLB) sparked huge protests among the local people of Potosi. They demanded the cancellation of the joint venture as they believed they were not adequately consulted and that the three per cent royalty payments – agreed upon in the partnership – were not enough (Walsche, 2020). The entire city of Potosi came to a full stop as protesters blocked the streets, and schools and shops were closed. A protester said: "They made a law for the benefit of the government itself, not for Bolivia. And they're giving it away to a private company, to a foreign company. And they're giving it away for 70 years!" (Lithium Worlds, 2021).

In fact, the Potosi people opposed Morales' lithium governance which had become much more moderate – or liberal – since 2017. At first, President Morales tried to minimize the mobilization of the protesters as he was determined to move forward with the deal. Nevertheless, continuing strikes and increasing public pressure forced Morales to revoke the agreement with the German company. Hence, once again, like after the uprising in the 1990s, the Bolivian government annulled an agreement with

[11] Bolivia's lithium resources are located in the Uyuni salt flat, which is part of the Potosi region.

a TLC as the direct result of societal mobilization. This time, it pushed the Morales government back to a more radical nationalist lithium governance.

4.2 Political factors

Although largely enabled and driven by the aforementioned socio-historical context, the election of left-wing socialist Evo Morales in 2006 provides the most important explanation for Bolivia's lithium governance over the past fifteen years. Being the first-ever elected indigenous President and former trade unionist, Morales placed 'the Bolivian people' at the top of his political agenda. To reinforce this, a new Constitution was adopted in 2009 that included the concept of *Buen Vivir* – or living well (Schilling-Vacaflor, 2011). According to Morales, the former Constitution came "at the expenses of the other, exploiting of the other, plundering natural resources, violating Mother Earth, privatizing basic services; while *Vivir Bien* is to live in solidarity, equality, harmony, complementarity, reciprocity" (Nunes, 2017, p.2).

Hence, to break with its exploitative past and for 'the Bolivian people' to benefit from the abundant natural resources, Morales' government declared the industrialization of the Salar de Uyuni a "national priority" in 2008 (Decree No. 29496, 2008). Since then, lithium was considered a 'strategic resource' critical to the country's economy, security, and national interest. One year later, this was officially enshrined in the newly drafted Constitution by which all 'strategic resources' in Bolivia were nationalized (Bolivian Constitution, 2009, art. 348 & 349). Moreover, the Constitution states that "the state shall assume control and direction of the exploration, exploitation, industrialization, transport and sale of strategic natural resources through public, cooperative or community entities, which may in turn contract private enterprises and form mixed enterprises" (Bolivian Constitution, 2009, art. 351). In fact, by nationalizing Bolivia's lithium industry and designating lithium as a 'strategic resource, Morales used the mineral to materialize his 'Bolivian people first' ideology. Hence, this ideological factor should be perceived as a pushing factor towards a more nationalist lithium governance.

Regarding this lithium governance, Morales' initial – radical – nationalist goal was to industrialize the mineral completely without the interference of TLCs and thus "*100% estatal*" (Hulsebosch, 2021). Moreover, instead of just exporting raw materials, on which the previous imperialist model of exploitation relied, the emphasis this time shifted towards the development of a 'value-adding' industry that would bring the entire lithium battery value chain within the borders of Bolivian territory. According to Morales, this industrialization would not only serve as a path to prosperity for all Bolivians but simultaneously be a path to sovereignty – independent from Western capital, technology and knowledge (Obaya, 2021). For example, Morales said that "as the export of raw materials is over, we seek not only lithium carbonate but to produce cars made in Bolivia" (Sanchez-Lopez, 2019a, p.1326).

In addition, the then Vice-President, Alvaro García-Linera, mentioned: "all Bolivians will benefit, taking them out of poverty, guaranteeing their stability in the middle class, and training them in scientific and technological fields so that they become part of the intelligentsia of the global economy" (Draper, 2019). By often reiterating such 'socio-technical imaginaries' the MAS government both legitimized and strengthened its nationalist lithium governance.

Another factor that enabled Bolivia's nationalist lithium governance over the past fifteen years is its (relative) political stability. In fact, as Brienen (2016, p.77) mentions, "it cannot be denied that in the decade since Morales' inauguration in 2006, Bolivia has gone through an uninterrupted period of relative political stability". Moreover, Morales, who took office after several years of great political turmoil, gained much popular support especially during his first decade in office. This could largely be attributed to the economic growth and falling poverty Bolivia experienced under Morales' rule. In fact, this support allowed him some time to implement and exercise his radical National Strategy on lithium. However, when Morales was ousted in late 2019 this resulted in a period of political instability. Moreover, lithium governance promoted by Jeanine Áñez, leader of the right-wing interim government between November 2019 and November 2020, stood in stark contrast to that of her predecessor, as plans for privatization were made (Walsche, 2020). Nevertheless, in November 2020, Luis Arce, former Minister of Economy in Morales' government, was elected as Bolivia's president, restoring the power of the MAS party. Arce revitalized Morales' state-led lithium industrialization albeit with significant openness towards TLCs due to a lack of domestic capital, technology and knowledge. Something with which Morales was already struggling during his final years in office.

4.3 Economic factors

In two ways, the commodity boom between 2004 and 2014 created favourable conditions for Morales to pursue his nationalist approach to lithium governance. First, impressive macroeconomic growth allowed Morales' nationalist lithium plans to be financially viable during his first year in office. In addition, due to the country's rapidly improving socio-economic condition, the majority of the population supported Morals' political-economic goals, including those involving lithium. Moreover, even though a "*100% estatal"* industrialization project had never been an option due to a lack of technology and knowledge, these favourable economic factors allowed Morales to largely fend off TLCs from interfering with the country's lithium project. Nevertheless, when the country's economy stagnated after the end of the commodity boom in 2014 and, in 2017, the lithium industry was still not showing any progression, Morales was forced to moderate – or slightly liberalize – his nationalist lithium strategy and be more open to TLCs.

In 2008, when Morales designated lithium as a 'strategic resource', Bolivia was "thought to possess 50% of global lithium reserves" (Ritter, 2009). In addition, during this time – between 2007 and 2010 – the price of lithium saw a first surge. As a result, the narrative that Bolivia could become the "Saudi-Arabia of lithium" prevailed during this period (Romero, 2009: Wright, 2020). Hence, realising both this potential and the fact that Bolivia's economy was heavily reliant on the mining industry, Morales wanted to protect his 'white gold' from any TLC interference. [12]

However, to accomplish this, Bolivia needed an alternative to foreign capital and knowledge. Hence, Morales announced a $995 million investment – over a period between 2008 and 2019 (McNeish, 2021, p. 186). The MAS government was able to pay for this as the fiscal income of the government increased both due to its renegotiation of the gas and oil contracts and the emergence of a global commodity boom. Both factors led to a fast-growing Bolivian economy between 2005 and 2014, when the average GDP growth was 5% and the poverty rate dropped from 60,6% to 39,9% (Webber, 2016; Keitaanranta, 2015). More generally, the fact that Bolivia was doing socio-economically well during the beginning of the Morales era earned him a lot of public support, which was also reflected in the support for his nationalist National Strategy (Valenzuela, 2019, p.84).

Backed by these favourable (socio)economic conditions, the 'National Strategy for the Industrialization of Evaporative Resources' (DNRE) was implemented in 2010 (Obaya, 2021). This strategy was divided into three consecutive but overlapping phases 'from the salt flat to the battery': the development/pilot phase, the industrial-scale extraction and lithium production phase, and the phase of lithium-ion batteries production (Sanchez-Lopez, 2019b). In line with Morales' "*100% estatal*" rhetoric, the first two phases of this plan would be completely controlled by the state and no TLCs were allowed. However, TLCs were welcome in the final phase of the 'National Strategy' "for the provision of state-of-the-art technology, necessary in the manufacture of lithium-ion batteries and other industrialization ventures" (Bravo, 2018, p.75). In fact, despite his radical nationalist rhetoric, Morales acknowledged right from the implementation of the National Strategy that there was not yet sufficient knowledge and 'state-of-the-art' technology available domestically to develop a 'value-added' industry. Hence, this lack of knowledge and technology was a constraining factor in Morales' nationalist lithium governance from the start (Barandiarán, 2019).

Regarding the battery production phase, TLCs could participate in joint ventures with state-owned businesses with up to a 49% equity share, which made these foreign companies "partners, not bosses" (Bravo, 2018; Garcia, 2010). While initially, the Bolivian government rejected proposals from

[12] Between 2008 and 2022, mining exports accounted for about 30 per cent of total exports (World Bank, 2023).

companies including Mitsubishi and Sumitomo (Japan), LG (Korea) and Bolloré (France) – these companies were solely interested in lithium's extraction phase – in 2013 a preliminary agreement was reached for the establishment of a joint venture between COMIBOL and the South Korean consortium Kores-Posco (Strobele-Gregor, 2013). They agreed on a US$1.5 million investment – each party contributing half – for the building of a plant that would produce lithium cathodes, a crucial component of the lithium-ion battery (Bnamericas, 2013). Nevertheless, the deal was never implemented (Zuleta, 2016).

Despite its high investments and implementation of the 'National Strategy', Morales' government failed to get the lithium industry off the ground. In 2017, Bolivia counted as many as one pilot plant in Uyuni, which in total accounted for a production that equalled less than two per cent of the total lithium production in Chile that same year (Proaño, 2019). Not only appeared the first two phases of the National Strategy technologically more difficult to develop than thought. In addition, his government's capacity to finance the lithium project also became unfeasible after the end of the commodity boom (Valenzuela, 2019, p.280). Hence, Morales had to acknowledge that for Bolivia to become a significant player in the global lithium market, he had to welcome TLCs' capital, technology, and knowledge also in the first two phases of the National Strategy rather than just in the final 'value-adding' or battery production phase. In other words, he had to moderate – or liberalize – his radical nationalist approach to lithium governance.

To accelerate industrialization, in 2017, the state-owned company Yacimientos de Litios Bolivianos (YLB) was created with which TLCs could seek strategic partnerships (Obaya, 2021). In April 2018, the Bolivian government established a joint venture between the German TLC ACI Systems – investing US$ 1.3 billion – and YLB aiming to kick-start the industrial production of lithium (Supreme Decree No. 3738, 2018). Although formally within the lines of Morales' nationalist resource policy – YLB remained the largest shareholder with 51 per cent against 49 per cent of ACI Systems – this joint venture was a break with Morales' radical 'National Strategy' implemented back in 2010 in which foreign involvement was only allowed in the downstream battery production phase. In addition, in February 2019, YLB and the Chinese consortium Xinjiang TBEA Group Co Ltd agreed upon the establishment of another joint venture – again 51 per cent owned by the Bolivian state – aimed to develop fourteen industrialized plants with a total worth of US$ 2.3 billion (Ramos, 2019; Bos & Forget, 2021). However, although this joint venture has not been officially cancelled, its success has been limited (Seefeldt, 2020). By contrast, the agreement with the German ACI Systems was annulled in November 2019 due to societal uprisings in the Potosi region.

5. Case study two: Argentina

Contrary to other Andean countries, Argentina does not suffer from a long history of resource extraction by foreign actors. In fact, large-scale mining projects started to develop significantly only since the 1990s. The lack of such a negative/exploitative history might have caused indigenous social movements in some lithium-rich provinces to be relatively weak which, in turn, made them refrain from any resistance against lithium projects. Two of the three lithium-rich provinces – Salta and Catamarca – have consistently pursued a liberal approach to lithium governance because of this lack of opposition. Moreover, the Argentinian Constitution grants the provinces ownership over their lithium reserves, which makes that the central government cannot directly influence lithium governance in the provinces. Nevertheless, the central government has indirectly impacted the lithium trajectory over the past fifteen years as political-ideological shifts caused changes in the country's investment climate. Furthermore, as (macro)economic instability could be seen as an important driver of these political-ideological shifts, this factor has indirectly influenced Argentina's lithium governance too. Something that *did* directly influence lithium governance in the provinces was the lack of capital, technology, and knowledge. Moreover, this could be seen, together with Macri's 'rain of investment' policy, as an important push factor for Argentina's openness towards TLCs.

5.1 Socio-historical factors

Despite its abundant natural resources, mining has historically not been a significant industry in Argentina, especially compared to other countries within the Andean sub-region like Chile, Bolivia and Peru.[13] While the latter countries had been the subject of exploitation since the Spanish conquest, at that time no deposits of any precious metal such as gold or silver were yet discovered in present-day Argentina. Consequently, this left Argentina with fewer comparative advantages and thus a peripheral status within the Spanish empire. In the centuries following the Spanish colonization, Argentina remained free from any large-scale mining activities (Forget, 2015).

Nevertheless, during the 1990s, Argentina's President Carlos Menem implemented a series of neoliberal policies aimed at attracting foreign investment and promoting the development of the country's mining sector. His government provided private mining companies with multiple benefits, such as significant tax breaks, fiscal stability for a period of 30 years, and duty-free imports of equipment (Law No. 24,196, 1993). As a result, "metal mining became relevant in Argentina in the 1990s" for the first time in history (Ministerio de Economía Argentina, 2022, p.18). In 1998, following

[13] Instead of mining, the focus of Argentina's economy has historically been on agriculture and livestock (Ferrer, 1967, p.22).

these neoliberal policy changes, Argentina's first lithium operation started when Minera del Altiplano – a subsidiary of US-based company FMC – began its first project called Fernix.[14]

As large-scale mining activities are relatively new to the country, "Argentina does not have a violent history associated with mining protests" (Taylor & Bonner, 2017, p. 7). However, when considering local resistance against lithium mining activities at a local level, a connection could be drawn between the presence/absence of local mobilization and the approach of lithium governance adopted by the provinces. Moreover, in Jujuy, the only province that has designated lithium a 'strategic resource' and exhibited a protectionist lithium governance, resistance against lithium investments from TLCs was really strong.[15] For example, when Orocobre – an Australian TLC – entered the Salinas Grandes salt flat in 2010, local indigenous communities demanded the TLC to abide by Convention 169 of the International Labour Organization.[16] Eventually, their '*no al Litio, si al agua y la vida*' – or 'no against lithium, yes to water and life' – attitude caused the cancellation of the project (González & Snyder, 2021, p.222).[17]

Interestingly enough, in the province of Salta and Catamarca – which both adopted a liberal approach to lithium governance – societal mobilization against lithium has been marginal. González and Snyder (2021, p.225) mention that in the case of Salta, this could be explained by "the weakness of indigenous social movements". Also in Catamarca, where Argentina's first lithium project Fernix commenced in 1998, no organised resistance hindered the project "for more than twenty years" (González and Snyder, 2021, p.227). Hence, this lack of societal mobilization enabled the latter two provinces to pursue a liberal approach to lithium governance without significant hindrance. Instead, strong resistance in the province of Jujuy could be considered an explanation for the provincial government to be more protectionist.

5.2 Political factors

Over the past fifteen years, Argentina has seen political-ideological shifts between centre-left to centre-right governments. This political volatility is clearly reflected in the country's attitude towards TLCs. Moreover, although the Argentinian Constitution designates the ownership of lithium to the provinces – which makes that the federal government has no direct say on provincial lithium policies

[14] This project was located in the northwestern province of Catamarca, which together with Salta and Jujuy make up Argentina's lithium-rich provinces.
[15] As this concerns lithium governance at the provincial level, it is inappropriate to speak of a 'nationalist' lithium governance. Therefore, this strategy of increased state control is here referred to as 'protectionist'.
[16] Convention 169 of the ILO grants indigenous people the right to prior, free and informed consultation.
[17] The local population's criticism not only focuses on socio-economic issues (like displacement, unfair compensation etc.) but also on ecological issues. Moreover, lithium exploitation is extremely water-intensive, which causes major water shortages around the exploitation site.

or attitude towards TLCs – the political-ideological shifts caused changes in the country's investment climate. As a result, these shifts indirectly impacted the lithium-rich provinces' openness towards TLCs.

Following the neoliberal decades in the 1980s and 1990s, the left-leaning government of Cristina de Kirchner continued to promote the mining industry. However, contrary to neoliberal periods, she combined this expansion with a strategy of economic nationalism and leftist reallocation policies. For example, in 2010, she initiated the "Conectar Igualdad" programme, which aimed to provide laptops for all students and teachers in high schools throughout the country. To support this programme, Cristina de Kirchner's goal was to industrialize lithium and produce batteries in Argentina made by domestic companies (Zicari & Argento, 2017, p.40). In 2011, a task force was established that promoted technological and scientific research. Furthermore, large investments were made to "almost all actors involved in the potential added value chain" (Marchegiani et al., 2019, p.12). To further stimulate the development of its domestic lithium industry, she placed export taxes, import controls and other limitations on a number of economic sectors.

Despite these efforts of state-led lithium industrialization, Cristina de Kirchner's administration did not manage to implement a nationalist lithium strategy. Moreover, between 2010 and 2014, de Kirchner "sought to declare lithium as a strategic natural resource at the national level that would create state-owned enterprises to regulate the market and ensure that the National Government had a more prominent role to play in lithium strategies" (Marchegiani et al., 2019, p.11). However, driven by strong resistance from the three northwestern lithium provinces – Salta, Catamarca and Jujuy – National Congress did not approve this proposal (Dentons, 2021).

The fact the de Kirchner administration did not accomplish the latter could largely be attributed to the country's complex legal and regulatory framework with regard to natural resources. Moreover, Article 124 of the National Constitution (1994), in which the federal structure of the country is enshrined, states that "the provinces have the original domain of all natural resources in their territory". As a result, although legal jurisdiction remains in the hands of the state, provinces are allowed to collect their own royalties and have autonomous decisions on the use of natural resource revenues (González & Snyder, 2021, p.214). This autonomy for the provincial governments has led to different approaches to lithium governance among the lithium-rich provinces (Perotti & Coviello, 2015, p.31). While the provincial government of Jujuy has taken a more resource-nationalist approach, ensuring a minority stake in lithium projects launched by TLCs located within its province,[18] pro-mining governments in the provinces of Salta and Catamarca, have both adopted a resource-liberal approach allowing TLCs to

[18] In 2011, the province of Jujuy designated lithium as a 'strategic resource'. Decree 7592 rendered lithium "a driver of socio-economic development of the province". As a result, a province-owned company – Jujuy Energía y Minería Sociedad del Estado (JEMSE) – was established holding a stake in multiple projects in the province.

invest and operate with little regulation (González & Snyder, 2021). Hence, despite the fact that Cristina de Kirchner aimed for greater federal state control over the country's lithium reserves, the national Constitution, by which "the provinces are in charge of controlling all mining activities", functioned "as a buffer against resource nationalism" (Escosteguy et al., 2022, p.1; Fastmarkets, 2022; Slipak & Reveco, 2019, p.123). In other words, the national Constitution prevented the de Kirchner administration from shifting lithium ownership from the provinces to the central state and, subsequently, implementing a more nationalist approach to lithium governance.

However, despite two of the three lithium provinces adopting a resource-liberal approach, Argentina attracted only a few TLCs to invest in its lithium industry during the de Kirchner period (The Economist, 2017). From this, we could argue that although the central state does not directly own the country's lithium deposits, it *does* affect the openness of the lithium industry towards TLCs. In fact, while the provinces have ownership over their lithium reserves, federal laws and regulations still apply to all of them. Consequently, TLCs willing to invest in Argentina during the de Kirchner administration faced an unfavourable investment climate due to the government's protectionist policies. Following this line of thought, de Kirchner's political ideology did not directly but rather indirectly influence the provinces' attitude towards TLCs.

This indirect influence of political ideology on the provinces' lithium governance became even more evident with the election of right-wing President Mauricio Macri in 2015. Moreover, by implementing a set of business-friendly policies and by opening up to foreign markets, Macri welcomed TLCs in the country's lithium industry. By doing so, he wanted to make Argentina the world's biggest lithium exporter (Dinatale, 2016). In fact, after only two months in office, the Macri administration issued order 349/2016 which eliminated an export tax on minerals that had been implemented by the Cristina de Kirchner administration (Dorn and Gundermann, 2022, p.348). Opening up extractive industries to the international market was part of Macri's neoliberal '*Lluvia de inversiones'* – or 'rain of investments' – policy (Wainer & Belloni, 2016, p.93). All this resulted in a 928% increase in investment in lithium exploration and production under the Macri administration – between 2015 and 2019 (Roth, 2019).[19]

In 2019, however, following the election of left-wing President Alberto Fernandez, TLCs' biggest concern was the potential return of export taxes and restrictions on the free flow of profits out of Argentina – protectionist policies that were in place under the former left-wing President Cristina de Kirchner (2007-2015). Despite refraining from implementing these protectionist economic policies, Fernández claimed that Argentina "must consider lithium as a strategic resource" (Beldyk, 2022).

[19] Due to this rapid increase, Argentina became the world's fourth lithium producer during the Macri administration with only Australia, Chile and China producing more annually (Dinatale, 2016).

Moreover, relying on 'socio-technical imaginaries' he repeatedly called for a state-led industrialization programme to optimally benefit from the 'white gold'. For example, he said, "I have seen how the world reclaims lithium as energy; we have the opportunity to provide it, and our potential is multiplied enormously if we industrialize it" (Télam, 2022). However, despite this rhetoric, Fernández recognizes that lithium reserves are owned by the provinces and that removing this autonomy would be in conflict with the country's Constitution. In fact, even if he would try to alter it, this would cause significant internal political turmoil. Hence, just like during the de Kirchner period, the Constitution acts "as a buffer against resource nationalism" as it prevented left-wing governments from exerting greater state control over lithium.

5.3 Economic factors

Major shifts in economic ups and downs have not only characterized Argentina's recent economic history but could also be seen as a driver of the country's political volatility over the past fifteen years. As a result, these (macro)economic fluctuations indirectly steered and shaped Argentina's lithium trajectory during this period. In addition, besides being prevented by the Constitution, the most important reason why left-wing governments did not manage to transfer lithium ownership to the state, was because lithium appeared socio-economically too important for the lithium-rich provinces. Therefore, these provinces were unwilling to give away this autonomy. In addition, for most of these provinces, a nationalist approach to lithium governance was not feasible due to a lack of financial and technological capacity. Consequently, this pushed them to adopt an open attitude towards TLCs.

In 2001 and 2002, Argentina was hit by its worst economic crisis in history. Moreover, as this crisis could largely be attributed to drastic neoliberal reforms in the 1980s and 1990s, it "forced many Argentines to re-evaluate domestic politics" (Wylde, 2011, p. 437). As a result, the successive administrations of Néstor and Cristina de Kirchner (2003-2015) turned the tide. Among other things, they initiated redistributive social policies and a revival of economic nationalism – policies that were feasible in the context of the commodity boom. Moreover, the commodity boom fuelled Argentina's "impressive economic recovery", which enabled Cristina de Kirchner to finance her 'industrialization of lithium' project (Dullien et al., 2016, p.229).

However, two economic factors had a constraining influence on this state-led lithium development. Most importantly, lithium was socio-economically too important for the lithium-rich provinces to return ownership back to the federal state.[20] Moreover, for these provinces, lithium meant an opportunity to "increase state revenues, create employment, and increase political independence

[20] These lithium-rich provinces are really dependent on mining. In 2012, in Jujuy, minerals accounted for around 65 per cent of total exports and in this percentage Catamarca even 95 (Symington, 2023). For Salta, no data could be found.

from the national government" (Dorn and Peyré, 2020, p. 76). Because of this high level of (potential) economic and developmental value, these provinces were "not afraid to push back against the government" (The Economist, 2022). Between 2010 and 2014, this resistance prevented Cristina de Kirchner from declaring lithium a 'strategic resource'.

However, as indicated earlier, high economic value oftentimes pushes governments towards a more nationalist approach to lithium governance. So, why did most of the lithium-rich provinces pursued a liberal approach instead? In fact, Symington (2023, p.77) explains that the "provincial dominion over resources actually works in favour of private investments. As resources belong to the provinces, the Argentine state can't exploit them, and the provinces themselves lack the capacity to do so." Hence, crucial capital, technology and knowledge from TLCs were needed for the provinces to benefit from the vast lithium reserves. Even in Jujuy, where the provincial government aimed to add value to the lithium industry, industrialization largely failed due to a lack of funds and technology. As a result, the province had to be more open to TLCs than willing in order to remain relevant compared to Salta and Catamarca (Fornillo and Gamba, 2019, p.145).

A second, more general, (macro)economic factor, was the end of the commodity boom in 2014. Moreover, this caused Argentina's export revenues to decrease, resulting in a decline in the government's fiscal income and foreign exchange reserves, and an increase in external debt. This had two consequences. First, Cristina de Kirchner's attempt at industrialization "increasingly suffered from a lack of funding", which made her nationalist lithium governance increasingly difficult to pursue (Dorn and Gundermann, 2022, p. 348). In addition, this deteriorating (macro)economic situation increased the demand for political change. This led President Macri to win the presidential elections in 2015, which in turn meant a shift in political-economic ideology.

However, also the Macri administration faced economic turmoil. Moreover, in 2018, Argentina experienced severe economic stagnation as the peso devaluated by more than 50 per cent, which was mainly caused by excessive inflation rates (BBC News, 2018). Once again, (macro)economic instability led to public resistance against the incumbent president's economic and political plans. Consequently, this once again caused a shift in political-economic ideology after Alberto Fernandez was elected in 2019. In fact, although Fernandez does not follow the same protectionist measures as former left-wing President de Kirchner, he nevertheless pushes for more state control over the country's lithium resources. However, the latter has only been mere words up until now (Beldyk, 2022).

6. Case study three: Chile

Largely dominated by foreign actors, mining has been a significant industry in Chile throughout its history. However, the fact that lithium was designated a 'strategic resource' – and hence brought into state ownership – by Pinochet in 1979 should not be considered a result of this controversial history. Instead, Pinochet made this decision from a mere realist point of view in the context of the Cold War period. Although incumbent governments over the past fifteen years, driven by their political ideology, made efforts to exhibit either a more nationalist – Michelle Bachelet – or more liberal – Sebastián Piñera – lithium governance, Chile remained reliant on Pinochet's regulatory framework which prescribes a public-private model for the country's lithium industry. However, as societal mobilization against lithium extraction increased in intensity and scale since 2018 the push for a more nationalist lithium governance started to increase too. This mounting resistance against TLCs was accompanied by a broader criticism of Chile's neoliberal foundations, leading to major societal uprisings in 2019. The election of left-wing President Gabriel Boric and, consequently, his nationalist lithium plans can be seen as a result of these uprisings. Like Bachelet, he wants to take full advantage of Chile's large lithium reserves, but with an inclusive, sustainable and state-owned character.

6.1 Socio-historical factors

Like many of its fellow Andean countries, the Spanish colonizers extracted valuable minerals – mainly gold but also other precious materials like silver – from Chilean soil during colonial times. Collier and Sater (2004, p.15-16) write in their book on Chilean history: "Back in the seventeenth century, the pattern of trade had been simple, and highly disadvantageous to Chile". Since its independence, foreign investors – mostly British and Americans – have been vying for control over Chile's copper industry, which in the nineteenth century had become the pillar of the country's economy (Culver & Reinhart, 1989, p. 724). Moreover, to counter this exploitative pattern the socialist government of Salvador Allende (1970-1973) nationalized the Chilean copper mines in 1971, which were primarily controlled and exploited by North American mining firms before (Fleming, 1973, p.595). Shortly afterwards, however, the military dictatorship of Pinochet (1973-1990) reversed much of Allende's socialist policies. In fact, although the nationalization of the copper industry was never reversed by law, in practice, foreign mining companies were permitted to return (Dicken, 2015).

Unlike other (extractive) industries, Pinochet was suspicious of foreign interests in the country's lithium resources. Moreover, due to lithium's use in nuclear technology, which gained increasing interest in the context of the Cold War period, Pinochet designated lithium to be of 'nuclear interest' in 1976 (Zicari & Argento, 2017). Additionally, Law No. 2,886 of 1979 declared the mineral 'non-concessionable' and a 'strategic resource' of national interest. Since then, all lithium resources in the country have become state property (Perotti & Coviello, 2015, p.36).

Despite this status under Chilean law, Chilean mining company SCL – currently owned by the American company Albemarle – was authorized to start exploitation in the Salar de Atacama in 1984.[21] This was possible because the 1983 Mining Code provided two exceptions to the aforementioned Decree Law.[22] In addition, in 1993, Sociedad Química y Minera de Chile (SQM) signed a lease agreement with CORFO to 'extract and generate lithium products from brines in the Salar the Atacama deposit' (WSP Ambiental S.A., 2022). In fact, Albemarle and SQM are currently the only two private companies actually producing lithium in Chile. However, because ownership over the lithium reserves remains in the hands of the state, the Chilean lithium industry could be characterized as having a public-private model.

So, from a historical point of view, no anti-imperial sentiments were involved in Pinochet's decision to designate lithium as 'non-concessionable'. Instead, he made this decision from a mere realist point of view in the context of the Cold War period. Hence, the fact that over the past fifteen years, the Chilean lithium industry has been heavily regulated by the state should not be attributed to Chile's controversial mining history but rather be seen as a result of Pinochet's power politics in more recent history.

When considering societal mobilization against lithium extraction, over the past fifteen years, resistance from the local indigenous population in the Atacama Desert – where Albemarle and SQM both run the only two lithium operations in the country – has increasingly become a constraining factor for TLCs involvement. Moreover, the Atacama Desert is home to eighteen different indigenous communities who have, according to Lorca et al. (2022, p.2), "played an important role in the mounting opposition against lithium mining in the Atacama Desert". In addition, all eighteen communities joined forces in one centralized indigenous association called the Council of Atacameno People (CPA), which made their mobilizing strength increase. In fact, while in the 1990s social mobilization against lithium mining was not prevalent, from 2000 onwards "social awareness and movements have grown and intensified" (Liu & Agusdinata, 2020, p.9). In 2007, local communities came into resistance when SQM was given permission to increase production by 400%. Again, between 2017 and 2018, demonstrations emerged when SQM signed a new lease agreement with CORFO. One of the protesters said, "we will not stop until the agreement is destroyed. We are not going to stop until the governments and the State respect us as indigenous people" (Jerez et al., 2021, p.9). Interestingly, it could be observed that

[21] Since then Chile was the world's top producer until Australia took over the first position in 2012 (Bonilla, 2020)

[22] This Mining Code (1983) stated that lithium can be explored or exploited when "mining concessions were validly granted prior to the resolution that classifies them as of importance to national security" (article 7) or when "object of administrative concessions or special agreements, subject to requirements and conditions to be defined, in each case in a Supreme Decree of the President of the Republic" (Article 8). For both exceptions, though, a lease agreement should be signed with the Chilean Production Development Corporation (CORFO), a government body that has ownership over lithium mining sites.

over the last decade, societal mobilization against lithium extraction “increased in intensity and scale” (Liu & Agusdinata, 2020, p.1). Moreover, since 2018, indigenous people have not only protested at a local level but also in the national capital of Santiago. This has resulted in an increasing public awareness of the negative social and ecological impacts of the lithium industry.

Local resistance against lithium extraction culminated in 2019 when indigenous communities joined nationwide protests over escalating social inequality in Chile. These protests ultimately led to the election of left-wing President Gabriel Boric (Sherwood, 2019). Boric, who supports the creation of a new inclusive and environmental constitution, recently advocated for a more nationalist approach to lithium governance (Villegas, 2023). Hence, the mounting societal mobilization over lithium extraction could be considered a push factor for these changes.

6.2 Political factors

Over the past fifteen years, short-lived periods of successive left- and right-wing presidencies have either pushed for a more nationalist or more liberal approach to lithium governance. While the survival of Pinochet’s regulatory framework – which established the state’s ownership over lithium – functioned as a constraining factor for Sebastián Piñera’s liberal lithium plans, Michelle Bachelet aimed to deepen Pinochet’s legacy of state control by implementing a National Policy on Lithium. However, Chile’s high degree of political volatility prevented this National Policy from being fully implemented , as the re-election of Piñera meant, once again, a shift in political ideology. Following this history of consecutive left- and right-wing governments, the question remains to what extent current left-wing President Gabriel Boric is able to pursue his nationalist lithium plans.

Moreover, during his first term in office, right-wing President Sebastián Piñera (2010-2014) declared he would privatize Chilean lithium (Perotti & Coviello, 2015, p.36). In other words, he wanted to eliminate lithium’s ‘non-consessionable’ and ‘strategic’ status to encourage TLCs to enter the Chilean lithium industry. In 2012, he initiated the so-called ‘CEOL program’ which entailed an auction wherein new lithium production contracts were granted to the highest bidder. SQM was awarded such a contract but, subsequently, this was invalidated due to an ongoing legal lawsuit against the TLC (Maxwell & Mora, 2020). Although Piñera’s endeavours to remove the ‘strategic’ status of lithium and enhance the involvement of TLCs in the Chilean lithium industry were unsuccessful, they set the tone for the debate concerning the mineral’s legal standing.

The re-election of Michelle Bachelet’s left-wing government (2014-2018), marked a different course in lithium governance. Moreover, following the aforementioned debate, Bachelet aimed to deepen the ‘strategic’ status of lithium. In order to accomplish this, she emphasized the need for a national lithium policy. To help formulate a comprehensive policy, she appointed the ‘National Lithium Commission’

(Dorn & Gundermann, 2022, p.345). Among other things, this commission recommended the government "to maintain the non-concessionable status of the metal", "to create a state-owned company to exploit the salt flats", and "to initiate public-private partnerships that create added-value for the country and greater social return on the exploitation of the salt flats" (Maxwell & Mora, 2020, p.67).[23] Bachelet incorporated these recommendations into her National Policy on Lithium – issued in 2016 – which focused on establishing a value-adding lithium industry through public-private partnerships, promoting research and technological development, and altering existing contracts with the TLCs SQM and Albemarle. The latter aimed to promote a more equitable distribution of lithium benefits among the state, TLCs, and local communities (Villagrán, 2016). In addition, the state-owned company CODELCO was given concessions to extract lithium (Maxwell & Mora, 2020, p.67).[24]

To emphasize the importance of her nationalist approach, Bachelet oftentimes used 'socio-technical imaginaries'. Moreover, during a speech, she said: "I am confident that Chile's lithium will not be a case of frustrated development but an example of a well-built future" (Voskoboynik & Andreucci, 2021, p.11). By doing so she consistently reiterated the need to develop an internal value-added industry. While this did not completely reject TLCs from entering the Chilean lithium market – they were "invited to operate as partners" under the condition that they would engage in developing a value-adding industry – it caused many TLCs to seek opportunities in neighbouring Argentina, where Macri's administration adhered to less strict terms and conditions.

Nevertheless, when right-wing President Piñera returned to power in March 2018, it meant yet another change in lithium governance. Moreover, driven by the fact that Argentina's lithium production was rapidly overtaking Chile's output, Piñera tried – once again – to privatize the country's lithium industry. Only after a few weeks in office, he granted Minera Salar Blanco – a joint venture comprised of an Australian, Canadian and Chilean company – "the first new lithium production and export license in decades" for the Salar de Maricunga (Mills, 2018). In addition, in October 2021, when the new leftist President Gabriel Boric was already elected, Piñera's outgoing government initiated another auction – like during his first mandate in 2012. Moreover, two private companies, Servicios y Operaciones Mineras del Norte S.A. from Chile and the Chinese auto and battery manufacturer BYD, were awarded 20-year contracts by Piñera. In fact, this evoked fierce criticism from incoming President Boric (Alonso & Nogales, 2022).

[23] It should be emphasized that the Lithium Commission recommended maintaining lithium as 'non-concessionabe' not on the basis of its nuclear value – the reason for which Pinochet did it – but rather for reasons related to its use in green energy applications (Bonilla, 2020, p.60)

[24] CODELCO is a state-owned copper company but also has a share in the country's lithium industry.

Moreover, during his campaign, Boric advocated for the nationalization of the lithium industry, arguing that "Chile cannot once again make the historic mistake of privatizing resources" (Cambero, 2021).[25] In fact, recently, in April 2023, Boric announced his government's National Lithium Strategy in which "he stressed that the State will seek to add value by committing to scientific and technological development" (Gobierno de Chile, 2023). In a reaction to (right-wing) critique, Boric's mining minister Marcela Hernando emphasized that this National Lithium Strategy does not entail a full nationalization of Chile's lithium industry. In fact, existing contracts with SQM and Albemarle will be respected and, when their contracts expire in 2030 and 2043 respectively, these TLCs will still be allowed to operate. The only difference is that they have to partner with the state-owned mining company CODELCO or with a – yet to be established – state-owned lithium company.

Moreover, the mining minister even added that "we should not think that the lithium policy will drive away investment. I think it's quite the opposite. Through public-private partnerships, we want to attract partners who can contribute to other parts of the production chain. We expect diversification of who is present in the lithium market in Chile" (Castro, 2023). In other words, although the lithium plans of Boric are nationalist in character, they are not as radical as some – especially international media – tend to claim. Still, given the volatile nature of Chile's (recent) political history, the question remains to what extent Boric is able to pursue his National Lithium Strategy.

6.3 Economic factors

The nationalist approach to lithium pursued by former President Bachelet can be adequately understood when considering economic factors like Chile's economic dependency on mining and the country's overall (macro)economic stability. In addition, current nationalist lithium plans of President Boric could largely be attributed to socio-economic factors. Although both Bachelet and Boric envisioned a key role for lithium Chile's sustainable and well-built future, Piñera's main focus was primarily on Chile's copper industry– lithium's 'big brother'.[26] In fact, considering that a liberal governance approach had contributed to making the copper industry the largest in the Chilean economy, Piñera wanted a similar approach to lithium governance. Moreover, this would help revitalize Chile's stagnant position in the global lithium market, something which was more important to Piñera than to develop a value-added lithium industry.

Even though the end of the commodity boom in 2014 led to a slowdown in economic growth, Chile remained "an island of [macroeconomic] stability in South America" (Stratfor, 2016). An important

[25] Here, Boric refers to the copper industry, in which Pinochet, after Allende's nationalization, once again welcomed foreign mining companies (Cambero, 2021).
[26] Chile's economy is highly dependent on its copper industry, which in general accounts for roughly 50 per cent of its total exports (Meller & Simpasa, 2011).

factor in this was the establishment of the sovereign wealth fund, which aimed to mitigate the effects of copper price fluctuations and provide stability to the economy by saving revenues in times of commodity booms (Bonilla, 2020, p. 48). In fact, during the heyday of the commodity boom, Chile was able "to save more than 10% of GDP in sovereign wealth funds" (OECD, 2015, p.6). This enabled Bachelet, even during times of a relative economic downturn, to implement her National Policy on Lithium in 2016. Moreover, it allowed her to finance her plans to industrialize lithium and invest in technological and scientific development.

Different from Bachelet's nationalist lithium plans, Gabriel Boric's current nationalist approach to lithium governance could be better explained through socio-economic factors. That is, although the Chilean economy enjoyed years of stable growth, the 2019 nationwide uprising was a result of mounting socio-economic inequality. In fact, protesters demanded a more socially and economically inclusive society (Franklin, 2019). President Boric, who owes much of his popularity to these uprisings, advocated for a progressive policy direction in the country – including a more progressive lithium agenda. In this light, the current nationalist lithium plans are indirectly the result of growing socio-economic inequalities in the country over the past decades.

However, the question now arises what, from an economic point of view, then explains Piñera's liberal lithium plans? A reason for his open attitude towards TLCs was the fact that Chile was losing ground in the global lithium industry compared to Australia and, later, Argentina. Moreover, during Piñera's first presidential term, in 2012, Chile even lost its position as the world's leading lithium supplier to Australia (Bonilla, 2020, p.55). Hence, by granting new contracts to TLCs to exploit lithium, he sought to regain Chile's leadership role on the global lithium stage, especially at a time when lithium price and demand increased rapidly. In addition, Piñera pointed out the success of the copper industry, which has accounted for a significant portion of government revenues for many years. However, unlike lithium, copper has no 'strategic' or 'non-consessionable' status, which has led to 72 per cent of copper mines being privately owned (ITA, 2022). Therefore, from an economic perspective, Piñera's push towards a more liberal lithium governance can be attributed to two factors: the aim to preserve Chile's competitive position in the global lithium industry and the liberal approach to the copper industry, which served as a model for achieving this competitive status.

7. Conclusion

This thesis not only aimed to contribute to an increased understanding of lithium governance within the 'Lithium Triangle' region. More generally, it also aimed to shed light on what factors drive and shape a country's natural resource governance, placing it somewhere on the continuum between resource nationalism and resource liberalism. Moreover, this thesis argues that to arrive at a thorough understanding of a country's natural resource governance, one should go beyond a narrow focus on its relationship with commodity prices. Instead, a wide range of ideological, cultural, social, historical, and economic factors should be included too. Only by doing this, one can place a country's natural resource governance into the right context and, subsequently, explain why it occupies a particular place on the continuum between resource nationalism and resource liberalism.

In fact, analysing lithium governance in the three 'Lithium Triangle' countries over the past fifteen years confirms the need for such a holistic and context-specific approach. Moreover, each factor, categorized into three overarching sets – socio-historical, political and economic – contributed in varying degrees to shaping the lithium governance in these three countries over the past fifteen years. Although, as said, each case has its own unique story, a number of trends have been identified that could provide an answer to the research question posed: why do the three countries in the 'Lithium Triangle' – Argentina, Bolivia and Chile – have exhibited different approaches in terms of their lithium governance and, subsequently, their attitude towards TLCs over the past fifteen years?

First of all, from a socio-historical point of view, we see that Bolivia and Chile, unlike Argentina, have a long and controversial mining history that was dominated and exploited by foreign actors. While this does not offer a direct explanation for why Chile and Bolivia are less open to TLCs compared to Argentina – Pinochet declared lithium 'strategic' not out of anti-imperialist sentiments but because of its nuclear value – it may form an explanation for the difference in the societal mobilization against lithium extraction among the countries. Moreover, although indigenous resistance to lithium projects was very strong in Chile and Bolivia, this was less the case in two of the three lithium-rich provinces in Argentina. In fact, the latter enabled these provinces to pursue an open attitude towards TLCs.

Furthermore, the impact of the political ideology of the incumbent government on lithium governance has been undeniably clear over the past fifteen years. Rather obviously, ideologically left-wing governments (Morales, Arce, Bachelet, de Kirchner, Fernandez and Boric) have generally pushed towards a more resource-nationalist lithium agenda, while ideologically right-wing governments (Macri, Piñera and Áñez) pushed for a more open attitude towards TLCs. Moreover, the frequent political-ideological shifts in Chile and Argentina over the past fifteen years have prevented left-wing governments, in particular, from fully implementing their nationalist lithium plans. In fact, left-wing

presidents not only brought with them an ideology of greater inclusivity and sustainability, but they also brought a different perception of lithium's role in their country's socio-economic development. For the more left-leaning governments, lithium meant an opportunity for a long-term resource-based development agenda in which state-led industrialization and research and development are prioritized. On the other hand, for the right-wing governments of Piñera and Macri, lithium provided an opportunity for 'quick wins'. As a result, their governments played a constraining factor in these long-term and state-led industrialization plans.

Finally, when we consider economic factors, we see that leftist governments in Bolivia (Morales) and Argentina (de Kirchner) utilized the commodity boom to finance their nationalist lithium agendas. In a similar manner, the end of the commodity boom caused (macro)economic instability and a lack of capital to finance their state-led industrialization programs. As a result, these countries – albeit in varying degrees – had to adopt a more open attitude towards TLCs. By contrast, In Chile, the end of the commodity boom was no reason for Bachelet to call off her National Policy on Lithium. In fact, even after 2014, Chile's economy remained relatively stable, among other things, due to the sovereign wealth fund it had established.

After all, as the demand and value of lithium will most likely continue to increase in the coming years, so too will the debate about the best approach to lithium governance in the 'Lithium Triangle'. For TLCs and all other stakeholders involved in the global supply chain of lithium-ion batteries it is therefore crucial to understand what factors drive and shape these countries' lithium governance. Only by doing so, stakeholders could anticipate any future changes in the region's lithium governance, which will facilitate a smooth transition to green energy.

Overview of main findings:

	Bolivia	**Argentina**	**Chile**
Socio-historical factors	• Long and controversial mining history. • Strong opposition of the Potosi people against TLCs.	• No long and controversial mining history. • Weak indigenous social movements in two of the three lithium-rich provinces (Salta and Catamarca).	• Long and controversial mining history. • Pinochet's decision to designate lithium as 'strategic' was *not* based on this mining history. • Indigenous people strongly oppose lithium extraction in the Atacama desert.
Political factors	• The election of Evo Morales and the adoption of the new constitution marked a turn to *buen vivir.* • Lithium is owned by the state due to anti-imperial sentiments and legitimized through 'socio-technical imaginaries'. • Political stability created an opportunity for Morales to pursue his nationalist lithium agenda over a long time.	• The National Constitution (1994) acts as 'a buffer against resource nationalism', giving provinces ownership over lithium. • Political volatility caused fluctuating changes in the country's investment climate, indirectly influencing the provinces' lithium governance.	• Lithium is owned by the state because of its 'nuclear importance' and 'non-concessionable status' as declared in 1976 and 1979 respectively. • Political volatility prevented Chile's lithium governance from either going more nationalist or more liberal.
Economic factors	• The commodity boom created a financial opportunity to pursue radical nationalist lithium agenda. • After the commodity boom, a lack of financial and technological capacity led Morales to increase openness towards TLCs.	• The commodity boom created a financial opportunity to pursue a more nationalist lithium agenda. • However, lithium is socio-economically too important for the provinces to give away ownership. • Lack of provinces' capital, technology, and knowledge causes liberal lithium governance. • (Macro)economic instability indirectly influences lithium governance as it fuels political volatility.	• (Macro)economic stability enabled a nationalist approach to lithium even after the end of the commodity boom. • However, Piñera's ambition to bring Chile back as the world's number one lithium exporter brought an end to these industrialization plans.

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