



Governance on lithium mining shareholdings: expanding Environment, Social and Governance (ESG) indicators to economic regulation and raw material politics

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Abstract

‘Environment, Social and Governance’ (ESG) considerations have received increasing attention as components that inform responsible investments in mining and global material supply. In ESG, governance variables have been mostly regarded as internal firm structures and broad national institutional strength, neglecting closer observations on economic regulation and national raw material politics. Improved governance data to support ESG evaluations should include historical and current relations between public governance bodies and private-sector firms. This paper examines the role of competition regulation agencies in weighing out and mediating relations between the State and multinational private-sector mining firms to unpack components that affect governance in mining. It does so by commenting on empirical data of the purchase held in 2018 of SQM shares—the world’s second largest lithium raw materials supplier—by Tianqi Lithium—one of the largest lithium materials producers in China. The paper discusses the place of equity markets in politics of nation-making and economic regulation in mining. It argues that beyond internal corporate structures, the governance criteria in the ESG profile of mining companies are largely affected by domestic economic regulation maturity, domestic political geography histories of private equity and imageries of corporate shares and natural resources. Furthermore, this paper argues that the effective governance of lithium supply in Chile is affected by political tensions between economic regulation and contractual regimes in mining.

Keywords Mining governance · Economic regulation · Nation-making · Equity markets · Lithium supply

Introduction

Investments on raw material supply have seen in recent years a rising focus on indicators that aim to account for non-financial metrics in capital valuations. These indicators are framed under ‘Environment, Social and Governance’ (ESG) and inform on asset performance against ethical and responsible investment criteria (Pedersen et al. 2021). For example, to list some ESG considerations, environment data could include emissions from energy use, incorporation of nature within facilities or adaptability to intense weather events; social data could include contractual interactions with impacted communities, reports and transparency on

labour compensations and negotiations with syndicates or economic disclosure broken down per activity; governance data could include supply chain reporting, institutional stability or transparency in directors board affiliations.

During the last 24 to 30 months, company-reporting frameworks have increased in robustness, particularly in the disclosure that ESG-aware companies hold on company reports. Still, ESG indicators have remained inconsistent, their measurements tend to lack replicability, and often they do not provide functions of setting commitments in the form of forward looking targets. Shortcomings for ESG data have been argued to exist mostly due to data gaps in ESG considerations and to disconnects between ESG reports with financial reports.¹ The lack of industry-wide systematic approaches to identify and categorise ESG indicators has resulted in ESG risking of being arbitrary and thereby losing significance.

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¹ See FoSDA (2020) for example on barriers to ESG reporting and on efforts done to curtail limitations in ESG data.

This paper takes a specific focus on the governance indicator within mining ESG criteria in the context of lithium mining in Chile, particularly following Dietsche (2019) and Petavratzi et al. (2022).

Dietsche (2019) highlights that mining governance at the level of States is mostly handled through bilateral contracts and mining legislation. Developing countries have predominantly relied on mining contracts whereas more developed countries with a mature mining industry tend to rely on mining legislations and general regulatory and legal systems (Dietsche 2019). Dietsche (2019) remarks three main aspects of mining contracts: (i) mining contracts do not ensure greater investment condition stability, (ii) mining contracts leave space for governance challenges as corruption and (iii) mining contracts pose greater administrative burden on host countries. This paper builds from these remarks to explore how do different branches of mining governance engage when State actors accountable for mining contracts demand specific functions from other State actors involved in competition law for mining activities.

On another hand, Petavratzi et al. (2022) discuss the impacts that ESG challenges have for prospects of lithium supply from South America. Building on Prior et al. (2013), Petavratzi et al. (2022) mention that sustainable governance on critical metals is commonly focused on future availability. They also remark that current research on ESG associated with lithium extraction in the Andean regions is focused on quantitative data, that is often generic and lacks systemic understandings of governance and social, along with geo-environmental processes. Following Perreault (2006) and Himley (2008), Petavratzi et al. (2022) remark the notion of governance to include control over resources and the articulations among stakeholders. In the context of lithium mining in South America, Petavratzi et al. (2022) highlight that governance frameworks define modes and structures for social participation that establish ‘who are the relevant stakeholders and their degree of influence with the state as well as with mining companies’ (p.16). As part of its overarching intention to assess paths for addressing ESG challenges in lithium mining in South America, Petavratzi’s et al. (2022) work aims to tackle the diversity of governance issues that go beyond the spectrum of material classification for lithium for national development, e.g. as strategic resource which ties its extraction with some form of State intervention. This intention is shared in this paper which takes it to examine the impact of governance in a sharper view on risks for investments in lithium mining in Chile from the aspect of relations between State agencies.

With these angles as outset, this paper examines the interactions between sections of the State in Chile that govern lithium mining contracts and that govern competition regulation and law. It thereby explores governance aspects that might go unnoticed in ESG risk evaluations in mining

that understand the figure of the State in governance frameworks in spectrums limited to a single unified stakeholder. For instance, Chen et al. (2015) remark that mining governance is significantly affected by sovereign States who are main players in setting groundwork for mining activities. However, as Chen et al. (2015) further point, stakeholders in mining governance often have different targets. This needs to be understood from scopes that segment stakeholders into subgroups to visualise governance stakeholders and their impact on investment risk in a clearer way.

This paper finds some of the tensions that exist within sovereign States when they aim to define a unified interest in mining governance and to use legal instruments to impose a dominant view and action towards mining. The paper argues that frameworks for competition regulation in mining in the context of Mineral States, that is economies largely bound to raw material export, with immature competition regulatory frameworks cannot provide governance stability when State actors are influenced by imageries of national development through nation-making and resource protectionism. This paper then proposes criteria that should be incorporated into governance assessments and reports to enhance ESG evaluations in the mining industry. These are notably domestic economic regulation maturity, domestic political geography histories of private equity and imageries of corporate shares and natural resources.

Empirical data for this study was collected during a 7-month fieldwork period in Santiago, Chile, in 2019. Data was extracted from archival analyses, conversations with mining firm directors and interviews to personnel of the Chilean Economic Development Agency (CORFO) and to academics formerly involved as public officials in the Chilean Competition Regulation Agency (FNE). Data gathering involved publicly available information and conversations that reflected personal opinions. This provided access to novel data but it limited the scope of mining governance analysis to context-specific settings and to opinions that do not confer the official position of involved authorities.

This paper first identifies conventional and emerging governance frameworks used in ESG evaluations and places these in the context of the mining industry. Secondly, the paper brings forth empirical data on an equity acquisition in the lithium mining industry between Tianqi Lithium and SQM to discuss governance aspects in the context of critical mineral extraction in Chile. The empirical section first details the link between the Chilean nation and private equity of mining firms—it elaborates on the role of equity markets in making the Chilean nation as a material-exporting country, and on how competition regulation agencies enter this grounded structure. There, the paper reflects on the historical use of private equity in Chile to build a national identity through mining. Thereafter, the empirical section presents the case of the SQM-Tianqi equity purchase to

observe the contemporary tensions between national politics on materials and firm governance structures. The paper then follows to discuss national politics and firm governance, and addresses the following aspects of mining governance: (i) interactions among private-sector firms, nations and State regulation; (ii) material interpretations of shares as economic resources anchored to territories and (iii) differences between economic regulation based on national politics and on competition law. The paper closes with key remarks observed throughout the discussion to argue that governance structures on mining are substantially formed by the interactions between equity markets, histories of private equity in national development and national competition regulation. The paper concludes by presenting governance criteria specific to lithium mining in Chile, expanding understandings of governance in mining and presenting points to improve ESG risk evaluations for the mining industry.

Governance indicators in ESG: baselines and benchmarks

ESG governance indicators are commonly discussed among industry participants in mining as practices enacted within the firm and pertaining to directors board selection or subcontracting practices. Conventional governance factors account for instance board characteristics, shareholding voting rights and executive compensation (Kumar and Zattoni 2015; Khan 2019).

Governance aspects in investments have also been evaluated by institutional features of hosting governments as means to unpack company-level governance as it is affected by the institutional setting of the hosting location or country. Early work from La Porta et al. (1998) recognised that broader institutional frameworks affect shareholder protection variations. Institutional strength has since been added into valuation and performance contextualisation (Khan 2019). However, as Khan further remarks, interpretation of institutional strength in light of shareholding protection risk remains subjective as the views of the purpose of ESG and the compositions of it are highly heterogeneous. Institutional strength is benchmarked by The World Bank (2022) through its Worldwide Governance Indicators that include six dimensions of governance. These include voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption.

Conventional factors as ownership structure and executive pay transparency can provide reasonable estimates of share performance when they are integrated with institutional strength factors such as risks of expropriation (Lemmon & Lins 2003). Emerging ESG frameworks consider country-wide political risk in the governance indicator risk but these

are usually arbitrary in their compositions and difficulty to integrate qualitative aspects of the intentions and imageries that public institutions and political actors have and ascribe to mining industries and natural resources in development and economy.

Mining governance and equity markets in Chile

This section presents empirical evidence of mining in Chile. First, it provides a background of Chilean mineral extraction in the context of private equity governance. Then it runs through events of a recent and significant equity purchase in Chile between lithium mining firms. This section highlights aspects relevant to assess contemporary institutional strength in mining activities in the region.

Private equity in the foregrounds of mining in Chile

Since the break of mineral exports from the Atacama Desert after the Spanish colony in 1810, private equity markets shaped and devised parts of today's mining operations in the Atacama Salt Flat. Callon, Millo and Muniesa (2007) conceptualise the term 'market device' to represent instruments and objects in assemblages that provide agency to human beings in markets. Equity markets thus have been market devices for the Atacama Salt Flat's material trade and its position in world commodity markets. As detailed by O'Brien (1989), company constructions on nitrate mining in the early 1900s in the Atacama Salt Flat were heavily grounded in share acquisitions and sales. Still today, backgrounds detailed in the recent lithium extraction contracts for leasing land, collecting royalties and overseeing operations in the Atacama Salt Flat that CORFO (2016a and 2018a) set to SQM and Albemarle show the relevance of corporate ownership dynamics in the relations that States have with private-sector firms on mining. These backgrounds in lithium mining contracts detail the thread of shares that led to the formation of SQM and Albemarle alike.

Lithium supply as known today from Chile is largely defined by the equity movements that occurred in the early 1900s among companies that mined nitrates and copper in the Atacama Desert. Lithium supply structures and governance in the Atacama Salt Flat were formed in the back of acquisition and concentration of private equity of nitrate and copper firms. It was then not just private equity trade as practice for financing mineral extraction, but also the equities themselves of mining firms with land-leases, mining permits and relations to public authorities that link materials in the Atacama Desert to world markets and national images.

As geographer Noel Castree (2004) highlights drawing from Poulantzas (1980) in the context of local movements and communal identities that experience tension between their needs and extra-local wants, the making of an identity is articulated by a promotion of it, ‘a constructed history and by a representational geography’ (p.142). The tension between local economic development needs at a national level, in the form of raw material protectionism, with the extra-local wants for rapid material supply and short-term shareholding monetary capitalisation at global level, in the form of commodity markets and stock exchanges, created a mining identity for Chile as nation-State formed by promotions of market openness, financing effectiveness from equity transactions and a geography represented by frontiers and metal abundance. Castree (2004) finds necessary to interrogate ‘who promotes what identifications’ (P.142). Here, in the context of mining ventures as pillars of identifications at the State level, it is seen just as necessary to interrogate what trade instruments and channels are used for such identifications. The channel of identification can thus highlight limitations to the very constituents of promoters, that is, a disconnect between a national identity with the models for its promotion in the context of mining States and foreign private-sector firms.

Before copper and lithium industries, nitrate ventures largely defined the mining identity that today exists in Chile as a Mineral State, meaning that a large part of its economic development is bound to raw material export (O’Brien 1982; Orihuela 2013). Resentments to resource extraction as economic development model has followed in Chilean general society mostly due to nitrate industries in saltpetre extraction and processing. Memories of domestic economic failures from nitrate exports are embedded in lithium imaginaries.² These memories triggered a desire to protect spaces and their intellectual groundings for resource making.

The protection of spaces of extraction and resources often works as nation-making projects (Klinger 2017). This is well observed in the Atacama Desert, particularly in times of conflicts Chile had separately with Peru and Bolivia in the second half of the 1800s, which ultimately transformed the Atacama Desert and the Antofagasta Region where it sits into Chilean territory. These wars were enclaved in the mineral relevance of the desert, see Zapata (1992). However, they occurred mostly from private equity interests that manipulated politics for keeping certain companies with fiscal advantages, explicitly export tax breaks in high quality nitrate-rich areas.

In the early stages of the Atacama Desert as Chilean territory, which framed Chile’s nitrate times, landownership was largely retained by an oligarchy (O’Brien 1982;

Zapata 1992). Such landowners promptly placed corporate anchors that shaped Chile’s social and economic patterns (O’Brien 1982). In the nitrate times of Chile, there was some blurring between making a nation and making a corporation. Bearing equity markets in mind, Chile’s economic relations at the time were designed by luring foreign investments and corporations by marketing the image of the country as a stable and governable sovereign nation (O’Brien 1982). The resulting economic relations in the Chilean nitrate times made the nation through corporate behaviours and images focused on assembling shares. The landowning elites that controlled Chilean economic relations partly did so by enclosing their property and using those enclosures as nation-making projects, see Hernández Cornejo (1930) and Levin (1960).

The SQM-Tianqi share purchase

On Monday, 3 December 2018, the Santiago Stock Exchange experienced its biggest transaction in record to date: Tianqi Lithium paid close to 4000 million US dollars for nearly a quarter of SQM series A shares (Business Wire 2018). SQM shares are divided into series A and series B; with series A holding selection rights for the company’s directors board, and preferential dividends.³ Tianqi and SQM are two of the leading lithium suppliers, see Fig. 1.

The public domestic perception of SQM, a prominent lithium supplier in Latin America, in Chile, is strongly tied with politics, power and injustice due to the company’s background with US investments, the country’s former military dictatorship and a judicial process linking it to politicians’ corruption (Galaz-Mandakovic 2018). SQM governance has thus been strongly intervened by the Chilean State who sought to clean itself from shaded ties with the firm by setting audits, conditions and sanctions from 2014 to the firm. In 2018, Tianqi Lithium, one of China’s leading lithium materials producer, purchased 24% of SQM Series A shares, thereby gaining rights to select three directors in SQM out of the total eight that form the directors board (Business Wire 2018; Diario Financiero 2019). This equity

² Personal communication.

³ FNE (2018a). The separations of shares into two series, that is A and B, was first established in the firm’s corporate governance modification of October 1969 where preferential dividends were given to series A. The separation into series was then overruled in April 1977. The break of shares into series A and B was later brought again in the governance modification of April 1993 which established, among other points, the Series A shareholders’ right to select the board of directors. The details of the latter share division were however revoked shortly later in June 1993 to set the same division but with different conditions in which the most essential difference consists of a single director that is selected by series B shareholders among the effective eight directors.

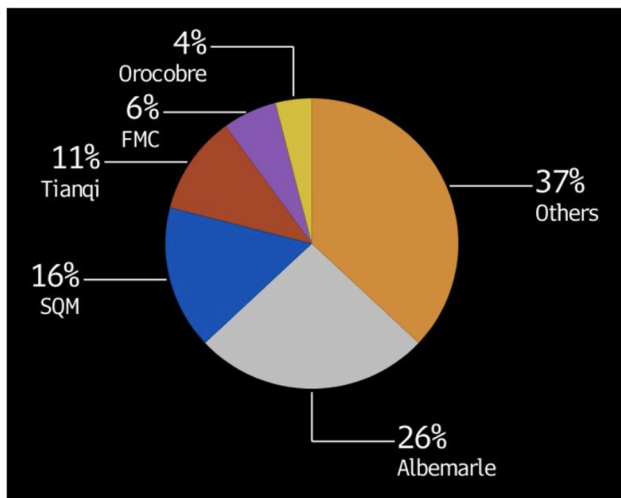


Fig. 1 Lithium supply market concentration at the time of the SQM-Tianqi equity acquisition (Bloomberg NEF 2018)

case drove the Chilean State and sectors of society aware of, or involved in, renewable energy, energy storage, mining, lithium or general politics, to speculate developments on lithium global market value and thereby perils for the country's national stability, hegemony and overall standing in global material supply. This equity transaction sparked lively movements among actors in Chile's corporate lithium environment, and it detailed modes of public economic regulation and observation in Chile. Public governance sectors urged FNE to investigate and block the acquisition. FNE is the independent public body in charge of regulating Chile's free economic competition and preventing damages to the country's interests from corporate equity dynamics of firms located in Chilean territory (Decreto Ley No. 211, 1973).

The making of Nutrien, a corporate group on services and products for agribusiness, in 2018 allowed the SQM shares to be available. Nutrien is an entity formed between Agrium and PotashCorp and comprises the widest range of operations for producing fertilisers (Lazenby 2017). In order for Nutrien to be allowed to form, China's and India's competition agencies required PotashCorp to divest its SQM holdings.⁴ This led Tianqi to file an agreement with PotashCorp for acquiring the shares in question. PotashCorp handled

32% of SQM, 24% of it was acquired by Tianqi, and the rest was allegedly taken by the Chilean pension systems.⁵

An equivalent to 24% a major lithium producer was not acquired seamlessly. Complaints about the equity acquisition were filed to FNE 7 months before, namely from public authorities. Opposing public authorities voiced concerns about perils to national sovereignty. Complaints drew on the dangers of letting a foreign competitor acquire participation in a nationally strategic material, without actually defining the meaning of strategic. Complaints implied that a competitor of such size would be likely to deliberately encumber Chile's geopolitical position in lithium markets either by frustrating SQM's operations or acquiring knowledge on comparative advantages. These complaints blurred private-sector firms with geopolitical frictions. Beyond discussing a material, opposition feared a foreign government taking national property and thus possessing a section of the nation as envisioned through resources.

SQM and the Chilean State

The involvement between foreign mining companies and parastatals has been recognised as projects for making the nation-State and for securing groundings in the turnings that shape geopolitics of materials. Such trend of ensuring the presence of the State in the operation of companies is described by authors that elaborate on Dependency theory, see for example Rivera-Quiñones (2018) for a recount of dependency theory and its impact on post-neoliberal governance in Latin America. However, Dependency theory highlights more than State presence in private-sector companies. Namely, Dependency theory highlights asymmetries of economic integration between developing and developed economies.⁶ Dependency theory is a critical position on the outcomes of a development model implemented in Latin America after World War II called import substitution industrialisation (ISI).⁷ ISI comprised inward-oriented economic and financial policies in Latin America that increased inflation and lessened commercial competitiveness in the region. This resulted in debt relief from international financial agencies in exchange of market liberalisation and foreign investment entry in productive sectors for global commodities.⁸ Economic contexts of tenacious market liberalisation and financial restructuring fixed economic models oriented on

⁴ India's competition commission required PotashCorp to divest from Arab Potash Corporation, Israel Chemicals, Ltd. and Sociedad Química y Minera de Chile S.A. (Giles, 2017). China's Commerce Ministry demanded PotashCorp to divest from Arab Potash Company, Sociedad Química y Minera de Chile S. A. and Israel Chemicals (Lazenby, 2017).

⁵ FNE (2018a). SQM's corporate bylaws state that no more than 32% of shares with voting rights may be concentrated by a single shareholder. The conciliation agreement that SQM filed to CORFO in 2014 states that PotashCorp's right to select three directors should never be hampered.

⁶ Rivera-Quiñones (2018).

⁷ Rivera-Quiñones (2018).

⁸ Baer (1984), Gwynne (1985) and Gwynne and Kay (2000).

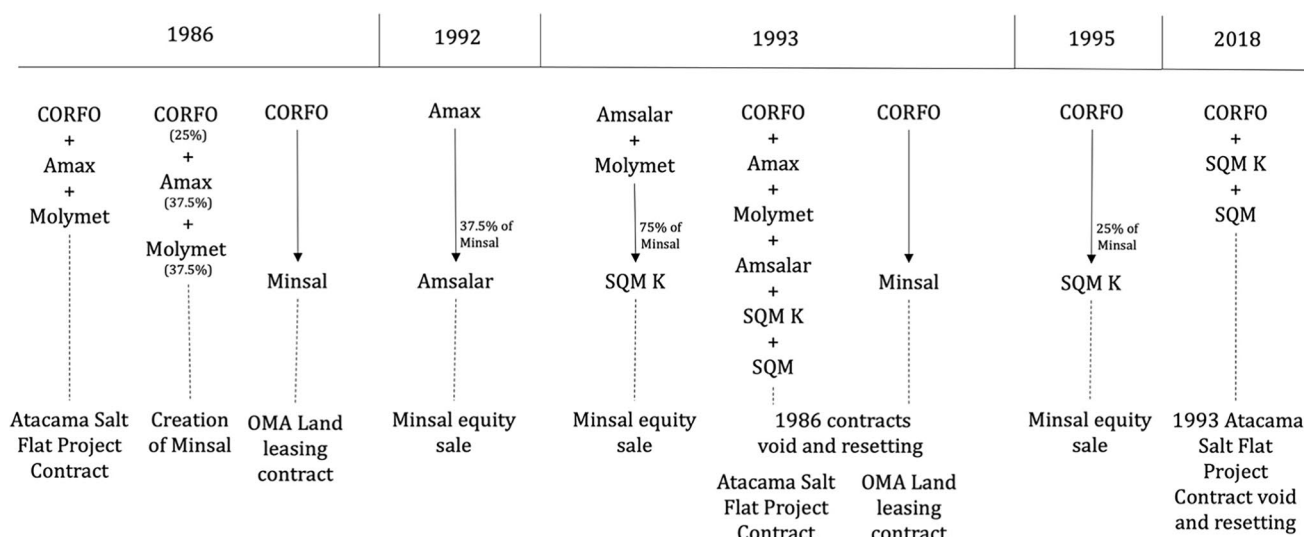


Fig. 2 Minsal-SQM equity and project threads

exportation. The line of thinking on Latin American development termed as ‘structuralism’ argues export-oriented economic models to have limited industrial development in material producing and exporting countries from the political anchors of financial recuperation governance.⁹

In the origins of its operations in the Atacama Salt Flat, SQM was formed between the Guggenheim’s Anglo Lautaro Company and the Chilean Government through CORFO in 1968 (Galaz-Mandakovic 2018). The Chilean State was no longer part of SQM since the country’s dictatorship period, which ran from 1973 to 1990 (CORFO 2018). The period in Latin America in which State presence in the market and in its identification as ‘the market’ was generally followed by deregulation and privatisation of state-owned companies. Such effect was largely deployed in Chile during the Pinochet dictatorship which reworked relations between domestic and foreign capitals (Taylor 2006). Since its privatisation in the military dictatorship period of Augusto Pinochet, SQM was antagonised in broad society and general politics as a backlash of Pinochet that remains until today, considering that its privatisation signified the company passing into the hands of Pinochet’s son in law, Julio Ponce Lerou. As shown in Fig. 2, a renewed and short-lived State participation with SQM happened in 1993 when SQM K bought 75% of the shareholdings of Minsal, whose rest was owned by CORFO until 1995 when SQM fully acquired Minsal (CORFO 2018).

Arboleda (2020) exemplifies with Chile how political strategies at the State level create investment frenzies that drive inflows of foreign capital, implying a State culture of welcoming and incentivising foreign capital investments in

the country. With this, Arboleda theorises on the role of the State to mediate inflows of capital that normally prioritise capital in money forms rather than in forms of productive assets. The behaviour from the Chilean State on the SQM-Tianqi equity purchase might contrast sharply with the idea of the country as a welcoming economic environment for foreign capital. Here, this behaviour from the State can be narrowed down to differentiate the shareholding preference to national stakeholders over foreign ones, thus mixing national-developmental models with neoliberal monetary-capital preferences in that shares become idealised as nationally bound assets that require State mediation for pinning their returns to national boundaries.

Complaints issued by Chilean State officials which attempted to hinder the investment from Tianqi on SQM do not contradict that Chile’s economic strategies at the level of the State are prone for foreign investment, but they demonstrate how the behaviour of the State to such investments is not always aligned with the economic strategies and policies favourable for foreign investments, particularly when materials categorised as ‘strategic’ and ‘critical’ are in question. State complaints were not looking to protect SQM, rather they were evincing a disconnect between national politics and economic regulation brought by the fear that the State has from losing grip on its lithium as ‘Chilean’, and through it on potentials for being a global force and direct beneficiary of electrification futures.

Public-sector intervention: lithium resources and their private-sector extraction

Disclosure of the expected equity acquisition was followed by a complaint issued in May 2018 by CORFO’s head at

⁹ Kay (1991 and 1998).

Santiago, 28 de mayo de 2018

Sr. Felipe Irazábal Phillippi
Fiscal Nacional Económico
Huérfaos N° 670
Santiago
Presente

Ref.: No tiene

Mat.: Solicita se inicie investigación respecto a la adquisición, por parte de TIANQI, del 24% de las acciones que NUTRIEN LTD posee en SQM, a través de la serie A, a un valor de US\$65 por cada título

De mi consideración:

ALEJANDRO GUILLIER ÁLVAREZ, Senador de la República, con domicilio en Avenida Pedro Montt S/N, Valparaíso, al Fiscal Nacional Económico respetuosamente pido:

De conformidad a los artículos 6°, 7°, 19 N° 14, 19 N° 24, y demás pertinentes de la Constitución Política de la República, los artículos 1°, 2°, 3°, 4°, 4° bis, 26, 39, 45 y demás pertinentes del decreto con fuerza de ley N° 1, de 2005, del Ministerio de Economía, Fomento y Reconstrucción, que fija el texto refundido, coordinado y sistematizado del decreto ley N° 211, de 1973, la ley N° 18.575 Orgánica Constitucional de Bases Generales de la Administración del Estado y la Ley N° 19.880 que establece las Bases de los Procedimientos Administrativos, vengo en solicitar se inicie investigación respecto a la adquisición, por parte de TIANQI, del 24% de las acciones que NUTRIEN LTD posee en SQM, a través de la serie A, a un valor de US\$65 por cada título, a fin determinar si dicha operación vulnera lo dispuesto en el artículo 1 del decreto ley N° 211, de 1973, por cuanto la materialización de la operación podría distorsionar el mercado, constituyendo un verdadero monopolio, en virtud de los artículos 1°, 2°, 3°, 4°, 4° bis, 26, 39, 45 y demás pertinentes del decreto con fuerza de ley N° 1, de 2005, del Ministerio de Economía, Fomento y Reconstrucción, que fija el texto refundido, coordinado y sistematizado del decreto ley N° 211, de 1973.

Fundo lo solicitado en los siguientes argumentos de hecho y derecho que a continuación exponen:

1. Es de público conocimiento que la empresa china Tianqi "informó a través de un comunicado que firmó un acuerdo para adquirir el 24% de la participación que tenía Nutrien en Soquimich, lo que implica la compra de 62.556.568 acciones de la Serie A de SQM de propiedad de Nutrien por un total de US\$4.066 millones."¹

¹ Diario Estrategia. <http://www.estrategia.cl/ver-noticia/108936/compra-acciones-sqm-empresa-china-beneficia-litio-chile-adviente-academico>

2. Sin embargo, la adquisición anunciada en diversos medios de comunicación tiene como efecto que ambas firmas controlarían alrededor de un 70 por ciento del mercado mundial, lo que constituiría un peligro evidente de abuso de poder de mercado?²
3. La adquisición de Tianqi, en los términos expuestos impiden que la Fiscalía Nacional Económica pueda controlar la operación de concentración en los términos señalados en el artículo 47 del decreto ley N° 211, puesto que la adquisición no permitiría influir decisivamente en la administración del otro agente, sea directa o indirectamente.
4. Sin embargo, si cabe a esta Fiscalía Nacional Económica analizar esta operación en los términos del artículo 3 del referido decreto ley N° 211. Ello porque si bien Tianqi, en términos estrictos, no podría influir decisivamente en la administración, si pueden dar lugar a hechos, actos o convenciones que entorpezcan o que restrinjan severamente la libre competencia. Así se ha manifestado esta propia Fiscalía Nacional Económica al señalar:

"En la medida que los interlocking de directores y las participaciones minoritarias presenten riesgos para la competencia, sin importantes eficiencias que sirvan de contrapeso, tal como se ha argumentado en este documento, dichas estructuras pueden ser alcanzadas por el DL 211 y se encuentran sujetas al control de los órganos antimonopolio."³

5. El artículo 3 del decreto ley N° 211 constituye la habilitación necesaria para que esta fiscalía, en el ejercicio de sus funciones y en el marco de sus competencias, deba analizar la participación minoritaria de los competidores, sobre todo respecto de los efectos monopolísticos que ella puede producir y que constituiría un daño irreparable para el mercado y para los intereses del Estado de Chile, como dueño, a través de CORFO, de las pertenencias mineras en el Salar de Atacama, inscritas a fojas 408 número 11 del Registro de Propiedad del Conservador de Minas de Calama, del año 1977.
6. La operación en comento podría configurar en el futuro lo dispuesto en la letra d) del artículo 3 del referido decreto ley, en tanto podrían participar simultáneamente personas en cargos ejecutivos relevantes o en el directorio de ambas empresas supuestamente competidoras, lo que se conoce como *interlocking*. Por ello, la fiscalía nacional económica es un órgano de la administración cuyo fin es precisamente, investigar, usando las atribuciones que otorga el artículo 39 del decreto ley N° 211, las eventuales infracciones a la libre competencia, conforme a la doctrina expresada más arriba.
7. Sin perjuicio de lo anterior, el nuevo artículo 4 bis de dicho cuerpo legal impone la obligación de informar a la fiscalía que usted dirige, de todas las adquisiciones, por parte de una empresa o de alguna entidad integrante de su grupo empresarial, de participación, directa o indirecta, en más del 10 por ciento del capital de una empresa competidora. Por ello, no investigar, en conformidad a la legislación chilena, la operación individualizada más arriba, implica necesariamente una violación al principio de legalidad y, en los hechos, se concretaría una operación que pone en riesgo la libre competencia.

² El Mostrador. <http://www.elmostrador.cl/mostrador/2018/05/16/china-tianqi-cendra-litio-su-ingreso-a-sqm-puede-amenazar-corbfo-de-una-possible-concentracion-en-el-mercado-del-litio/>

³ FNE. División de Fusiones y Estudios, "Participaciones minoritarias y directores comunes entre empresas competidoras".

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8. La introducción de este artículo 4 bis, nuevo, mediante ley N° 20.945, de 2016, permite que se adopten medidas preventivas, correctivas o prohibitivas que resulten necesarias para la protección de la libre competencia, sin perjuicio de las medidas señaladas en el artículo 26 del decreto ley N° 211.
9. Cabe hacer presente además que la Fiscalía Nacional Económica que usted dirige es el único órgano que tiene facultades para poder investigar este tipo de ilícitos a la libre competencia, conforme lo dispone nuestra legislación. No iniciar una investigación pondrá en la palestra las dudas legítimas que surgieron durante los debates legislativos del anterior período respecto a la titularidad de la investigación, como también de las acciones penales especiales señaladas en el referido decreto, colocando una tensión innecesaria a nuestra institucionalidad económica respecto del litio que, en definitiva, se constituye como uno de los pilares de la economía chilena en la era de la electromovilidad.

De este modo, y de conformidad a lo señalado, vengo en solicitar se inicie investigación respecto a la adquisición, por parte de TIANQI, del 24% de las acciones que NUTRIEN LTD posee en SQM, a través de la serie A, a un valor de US\$65 por cada título, a fin determinar si dicha operación vulnera lo dispuesto en el artículo 1 del decreto ley N° 211, de 1973, por cuanto la materialización de la operación podría distorsionar el mercado, constituyendo un verdadero monopolio, en virtud de los artículos 1°, 2°, 3°, 4°, 4° bis, 26, 39, 45 y demás pertinentes del decreto con fuerza de ley N° 1, de 2005, del Ministerio de Economía, Fomento y Reconstrucción, que fija el texto refundido, coordinado y sistematizado del decreto ley N° 211, de 1973.

Sin otro particular, saluda atentamente a Usted.

ALEJANDRO GUILLIER ÁLVAREZ
SENADOR DE LA REPÚBLICA

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Fig. 3 Complaint issued by Senator Guillier to FNE on SQM-Tianqi acquisition (FNE 2018a)

the time, Eduardo Bitrán, in the name of the institution. Such complaint was later followed by another one issued by senator Guillier, who was then running for president, see Fig. 3. Senator Guillier's complaint was basically applauding Bitrán's accusations without raising any new issues other than implicitly pressuring from a higher end of national politics. Several more congressmen expressed concerns about this equity acquisition; mostly because there was a shared image among public officials that lithium was the *thing* which would replace copper.¹⁰ The copper nationalisation was a traumatic event in Chilean politics, and the figuration of copper as a 'strategic' material seemed to be passed on to lithium.¹¹ While the image of copper was shined on lithium, it was not the Congress who would protect it now as it did for the red metal.¹² Rather, Congress was now pressuring FNE to undertake such action.

¹⁰ Personal communication with a former FNE member.

¹¹ Personal communication with a former FNE member.

¹² See Novoa Monreal (1972) for a political recount of the copper nationalisation in Chile.

FNE proceeded with CORFO's complaint while being fully aware of the social domestic contexts bound to copper and saltpetre. Explicitly, FNE recognised that economic behaviours and images attached to other materials were being reproduced in lithium and produced for the understanding of new identities and ideas that entangled mining with clean energy futures. It thereafter enquired several actors involved with the SQM-Tianqi equity purchase and with lithium industries and supply. This involved having direct conversations with company leaders and compiling commercially sensitive confidential information, see Fig. 4. The initial aim of this exercise was to understand the making of lithium and battery supply chains and industries through the corporate relations shared among people, companies and materials. Possibly, there has not been a larger attempt to untwine the corporate entanglements in contemporary lithium supply in Chile.

After a pre-investigation phase that spanned for over 3 months, FNE considered that it did not had sufficient information to determine if the equity acquisition represented a risk to competition for Chile (FNE 2018a).

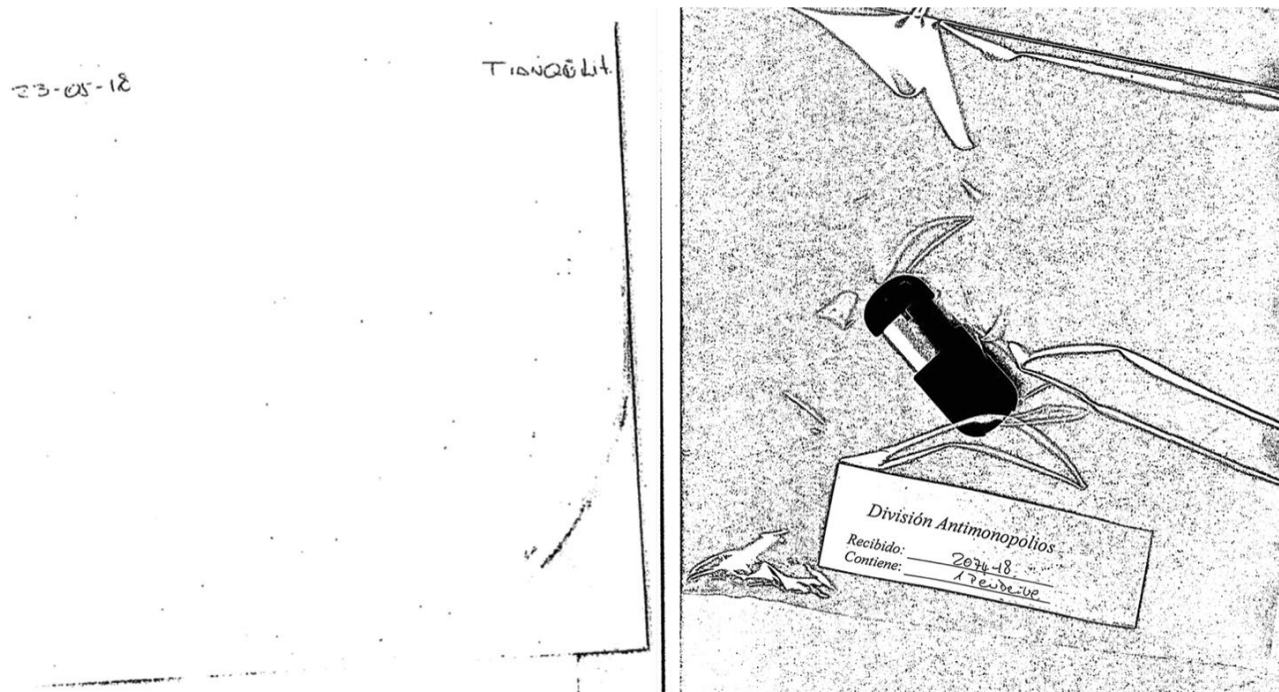


Fig. 4 Scans of the compact disc and pen drive from Tianqi's declaration to FNE (FNE 2018a). Compact disc contained the recorded declaration of Tianqi directives, and the pen drive contained corporate reports and data provided by Tianqi's legal counsel

Public assessments: economic concentration and governance of mining industries

The acquisition of SQM equity by Tianqi made Chile's contemporary residues of its militarised past visible and partly localisable in corporate structures and governance for mineral supply. The role of Julio Ponce Lerou, Pinochet's son-in-law and controller of Kowa, a corporate group that dominates the internal governance of SQM, was now more than before brought to surface for its recognition and commentary from Chilean public spheres and general society. FNE was not looking to strengthen Ponce's position in SQM and Chile's economy, which would have benefited from impeding the equity acquisition to happen.¹³ Simultaneously, FNE was not entirely certain that the matter concerned free competition and economic regulation as it considered it to be rather emanating from a lack of administrative abilities from CORFO.¹⁴ For FNE, the intention from CORFO to get an investigation going, regardless of any reworked alignment and alliance from the matter with Ponce, could have been devised to deter 'the Chinese' from purchasing the equity in stake.¹⁵ Tianqi is not a Chinese State company insofar that,

as expressed by its CEO and Chair, the Chinese government is not a shareholder (Durante & Capdevila 2019). Still, it was portrayed as such by most actors in Chile, particularly due to a common lack of understanding of the Chinese State's involvement in and control over the companies in its territory.

Through the national prosecutor, FNE struggled to determine if a formal investigation should proceed as it considered this issue to be a matter of material export.¹⁶ Under FNE's focus on limiting economic concentration activities in Chile, lithium export does not seem to be a relevant source for potential negative effects to free competition in Chile or to its public interest. Though concentration of economic activities is often addressed as a source and cause of market failures, monopolies in Chile are not necessarily banned by FNE nor do they necessarily fall against Chilean law.¹⁷ Competition agencies in Latin America are rather askew into the breath of what they might intervene on (Peña 2012). Events in equity markets that attend to operations and politics around materials may then be left with wider ranges of disregard or tolerance.

¹³ Personal communication with a former FNE member.

¹⁴ Personal communication with a former FNE member.

¹⁵ Personal communication with a former FNE member.

¹⁶ Personal communication with a former FNE member.

¹⁷ Article 4 of FNE 211 Law Decree states that any monopoly in Chile can only exist if it was given by Chilean Law (Decreto Ley No. 211, 1973).

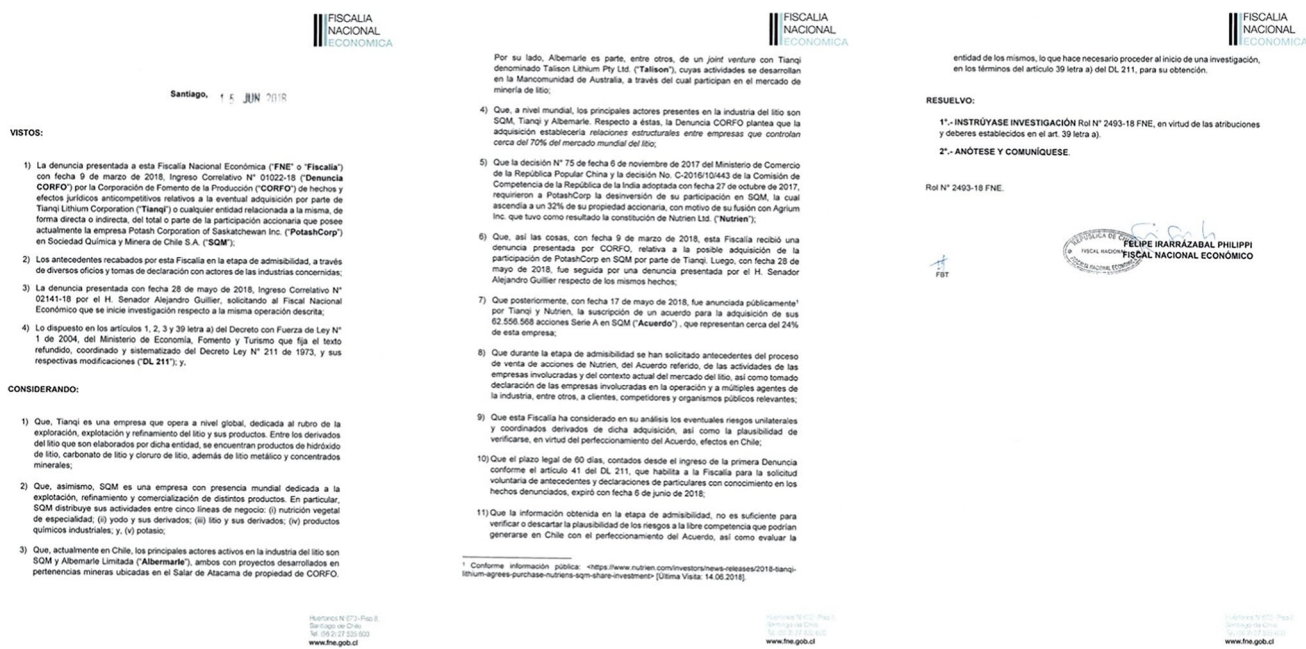


Fig. 5 FNE resolution for investigating the SQM-Tianqi equity purchase (FNE 2018a)

Mining market geographies and national economic regulation

FNE has discretion to select which complaints are to be followed, based on its own judgement of admissibility to determine if a matter can potentially infringe upon the public economic order.¹⁸ In the case of lithium consumption, the significance of lithium prices for Chilean markets affected by products with lithium materials, which at the time were mostly consumer electronics with lithium-ion batteries, was considered negligible; FNE calculated the percentage that corresponded to lithium in consumer electronics imported by Chile. This metric was the one employed to evaluate if Chilean markets are affected by lithium price volatilities or control, and thereby by equity markets dynamics affecting lithium supply.¹⁹

The affected consumer was considered to be the international market and not the national market, as that at the time Chilean companies were not major lithium buyers. Such a perception of the Chilean lithium market, one where there are virtually no national buyers, demonstrates a lack of understanding and communication with CORFO on its plan

to internalise battery manufacturing in the country. In addition to the perceived negligible effect on Chilean consumers, FNE considered that there was no risk of supply concentration as Tianqi had then no investments on other companies of the same industry in Chile.

Still, FNE followed with a formal investigation, see Fig. 5. FNE considered that the opacity of the lithium market and the lack of reliable traceability of global lithium reserves limited any legibility and understanding of the stake that Chilean lithium reserves had in broader geographies.²⁰

FNE looked for affectations to Chile but consulted to other countries that may have been involved in the matter. By doing so, it evinced that economic geography of resources and their extraction touch on stakes in equities beyond the nation. FNE consulted with India's and China's competition regulation institutions, given that these two were involved in bringing the SQM shares into market, but it consulted as well with the United States (US) competition agency.²¹ While the US competition agency looked into this issue, it did not reply to enquiries for thoughts and expertise on what FNE considered to be an affair that mattered for large lithium consumers in the USA.²² This lack of reply could have dealt with the trade war between the USA and China at the time, and with the involvement of the US government

¹⁸ It was stated in personal communications that about 85 to 90% of complaints filled to FNE are dismissed, and over 90% of complaints made by congressman to FNE are dismissed. These figures hint that the usual matters that are denounced to FNE do not correspond to FNE's understanding of matters that pertain to its mandate and focus.

¹⁹ Personal communication with a former FNE member.

²⁰ Personal communication with a former FNE member.

²¹ Personal communication with a former FNE member.

²² Personal communication with a former FNE member.

on Pinochet's dictatorship in 1971 and thereby causally on today's control of SQM by Ponce.

FNE, looking at Chilean market geographies as those enclosed within Chile's political geography, that is physically within the country's territorial borders, ultimately filled an agreement with Tianqi to allow the purchase of under a quarter of SQM shares.²³ Overall, the impression of the lithium industry in Chile expressed by people involved with the country's competition regulation agency is that of a dark and shaded industry, comparably impossible to track and oversee. From the side of competition regulation, FNE attempted to act cautiously since it recognised that the 'market power' that lithium allegedly holds for energy storage could be easily striped from it if market regulation was enacted carelessly.²⁴

Mining governance and commercial economics

This section brings together and discusses findings from empirical evidence of the SQM-Tianqi equity purchase. It first discusses governance of raw materials in Chile as institutional frames change but imageries of minerals in development remain. Then the section discusses tensions between contractual governance and State regulation for mining in Chile. This section highlights governance aspects of lithium mining in Chile and discusses competition regulation agencies in the context of wider economic regulation and political aspects of the mining industry.

Private-sector mining firms, the nation and commercial regulation

In her assessment of the origins of western mining governance, Ana Elizabeth Bastida (2020) underscores the 'free mining' tradition, a system that according to Jeannette Graulau (2011) saw initial widespread application in early modern times following the medieval period in Europe. In its original governance frame, 'free mining' encourages mining by allocating land ownership for mining exploration and relegates the role of the State to registry oversight. This system has influenced most of the governance of land and resource use which favours mining over other land uses (Bastida 2020). Bastida (2020) further observes that from this base, systems that favour private property of land and resources have seen stronger State intervention in the form of contractual regimes when some minerals are

acknowledged as strategic. The case for intense mineral requirements for low-carbon emitting energy technologies provides a newfound strategic category for myriad metals that were before economically negligible (Ali et al. 2017; The World Bank 2017). In the context of Latin American resource governance in the wakes of neoliberalism, the mining governance saw a merging of free mining and contractual regimes, particularly, so with North American interests protecting strategic minerals in Latin America and thus opening markets to American and Western European companies. In Chile, the 'free mining' model was set to contractual bases during the copper nationalisation as the country's economic development became attached to mining and the American companies that controlled its pricing and trade (Novoa Monreal 1972).

The economic model in Chile at the time of the SQM-Tianqi equity acquisition was that which the Pinochet period produced and which was largely based on the Chicago Boys advocacy on market and trade liberalisation (Taylor 2006). Orihuela (2013, 143) further describes the legacies of this model to be spoken of by pro-Pinochet technocrats in 1990 as 'macroeconomic stability, aggressive trade integration and business-friendly investment climate'. This is contextualised to what Ahumada (1970) notes on the portrayal that touches on European personification ideals held by the Chilean government during the Pinochet time for its own model of economic institutions. Recently, several announcements from CORFO and the Chilean Ministry of Mining during corporate events on lithium mining in 2019 ratified Chile as an investor-friendly country and one aligned with European institutions on market growth and openness.

Chile is a Mineral State, in the sense of latching its economic development to raw material export, which has enacted active and strong State intervention against potential resource curses (Orihuela 2013).²⁵ It is then not surprising that a State intervention on private-sector business was expected by and from the public sphere on a matter that regarded a strategic material. What is surprising is that conducting an intervention was pressed on to FNE, an institution that is not designed for overseeing minerals and economic sovereignty.

Support from congressmen and their statements characterised the pressures to drive institutional change for the copper nationalisation in-between 1960 and 1970 (Novoa Monreal 1972). The pronouncement of congressmen for the SQM-Tianqi equity acquisition give testament to how

²³ See presentation held in the Chilean senate by FNE (2018b) where the terms for the purchase permission to Tianqi are exposed.

²⁴ Personal communication with a former FNE member.

²⁵ Resource curses include but are not limited to negative effects from monetisation and changes in governability of resources. Examples of work that elaborate on this or use it as analytical tool are, for instance Humphreys et al. (2007), Bridge (2009), Mahanty and McDermott (2013), Spiegel (2014) and Kirshner and Power (2015).

ways of acting remain entrenched in everyday organisations of public networks when material symbolisms are reproduced and brought under the public eye. The social construction of market intervention for Chilean minerals draws on convincing and leveraging voices from public officials through professional-political networks. But the institutional frame of the times of copper nationalisation is not that which exists today in Chile for economic development and monitoring.

Today, FNE as a State entity on economic competition regulation takes a place that did not exist for control of concentration of economic activities in the times of copper nationalisation. Economic concentration before the making of the Free Competition Defence Court in 2003, which established FNE's current institutional shape and range and mode of practice, was normally amended by law directed to a specific industry or material rather than by public bodies commissioned to that effect. FNE aims to safeguard the public economic order, but the meaning of this mandate can be misunderstood and placed out of context, and seems to be so for lithium. CORFO considered the investment on SQM from any big lithium competitor to affect the public interest; it even went to say that the equity acquisition negatively affects the world's interest (La Tercera 2018). For FNE, economic concentration activities regard only matters that involve a single entity handling multiple activities of and in a single industry in Chile (Irrázabal 2019).

Nitrate pasts in the Atacama Salt Flat reveal equity markets as critical tool to operate the country's early and applauded economic relations, which shaped Chile's export-led development, see O'Brien (1982). The Pacific War held from 1879 to 1884 between Chile and the Peru-Bolivia alliance disputed guano and nitrate resources that were largely controlled by private firms (Zapata 1992; O'Brien 1982). In that time, companies were central in the war's disputes, in making resources valuable and in creating nation-making projects for governments. The attribution of saltpetre pasts to lithium as warning to prevent foreign participation in lithium operations did not account for the State's favourable appreciations to foreign capital in nitrate times. It however involved hope of new economic surplus brought by the growing role of lithium materials in electrification futures. This hope cautioned on the replication of industry failures of former materials that anchored the country's economic performance to upstream resource value seen as unfavourable for national development.

The benefits of equity dynamics to ease the nitrate industry in Chile and ground the national identity and its material economic relevance are not dragged along the nitrate memories that posit some equity acquisitions and markets in lithium as malevolent capitalist workings in benefit of 'those outside the nation'. The blurring between making a nation and making a corporation in the nitrate times continues

today for the overlapping perceptions of the nation as a stakeholder in lithium world-value.

Economic regulation, competition law and mining governance politics

Basing on Smith's (1980) notions about the role of capital and the nation on producing nature at a world scale, Arboleda (2020) suggests to take the world market, and not the nation-State, as analytical base for unpicking resource imperialism. In such thought, the world market can likewise be base for unpacking resource nationalism. Competition regulation agencies understand that their relation with States may come driven by the thought of the use of world markets in imperialism, but not from the thought of markets themselves as imperialist occupier.

In Latin America, economic regulation misfits with competition law due to the market-orientation of economic regulation (Dunne 2015; Peña 2012). Peña (2012) notes the contextual particularities of competition regulation agencies in Latin America to be entrenched in politics and limited experience. As hinted by Irrázabal (2019), it seems that the view of FNE as competition agency is solely focused on limiting economic concentration activities and particularly, if not exclusively, concerned on monopolies and mergers. The structure and purpose of economic activities and policies, where the economic system and its order may be under more scrutiny, is not a matter that is intended to be observed, challenged nor amended by competition regulation agencies. Equity markets are then not structurally vulnerable to competition regulation agencies as they might be, in contrast, to economic regulation.

The imagery that CORFO and the Chilean State had at the time of SQM as it being an 'Atacama Salt Flat presence' limits a thorough understanding for the State of SQM's equity participations and infrastructure investments in places beyond Chile. After all, Tianqi was not investing in SQM operations in the Atacama Salt Flat alone, but likewise in its line of operations elsewhere. This speaks of a misunderstanding and misrepresentation held by the Chilean State of the Chilean corporation and particularly of corporations that deal with lithium located under the Atacama Salt Flat. SQM's symbolism in Chile includes being a force that grounds mining in the Atacama Salt Flat, and also being a tenant to CORFO that provides royalties to the State through a contractual agreement. Clashes were long present between CORFO and SQM; CORFO's 2014 lawsuits on SQM testament this. However, Bitrán through CORFO, after facing a strong contention against Julio Ponce Lerou, Pinochet's son in law and SQM practical head, ended by joining Ponce to repeal Tianqi's investment. The ambivalence by CORFO regarding its conduct with SQM, as now one showing alignment and arguable support to Ponce was

	Low-risk profile		High-risk profile	
Domestic economic regulation maturity	[High maturity]	[Medium maturity]	[Low maturity]	[Immature]
Domestic political geography histories of private equity	[Political geography is detached from private equity]	[Some participation of private equity in making political geography spatial frontiers]	[Considerable participation of private equities in establishing core political geography spaces]	[Political geography formed by the establishment and spatial expansion of private equity holdings]
Imageries of corporate shares in raw materials	[Corporate shares are detached from the ideas of nation]	[Parastatal shares are considered as sovereign property]	[Corporate shares of critical and strategic materials are considered as part of the nation]	[All shares on mining companies are visualized as constituents of the nation]
Imageries of natural resources	[Natural resources are not linked to the nation]	[Critical and strategic minerals are linked to ideas of nation-making]	[Most metals are considered as national property]	[Natural resources are considered as national property and as constituents of national identity]

Fig. 6 Risk matrix for proposed additions to governance assessments in mining ESG profiling

not comprehensible for FNE. CORFO chose to pressure FNE to restrict the SQM-Tianqi shareholding movement rather than directly attempting to restrict it through the contractual regime it held with SQM.

Competition regulation agencies develop equity dynamics and incite conduct on equity movements as part of their commission (Dunne 2015). Furthermore, their experiences and practices are used by other competition agencies, either emulated or studied and integrated into regulation methods. Their experiences and methods are in addition analysed and used as market data by investors. As such, competition regulation agencies partly affect equity markets and the relations between the State and the corporation in broader geographies. Still, equity markets far surpass competition regulation agencies in defining market dynamics. Company relation traceability is hardly accomplished if attempted to be done by today's institutions that face equity markets. Equity markets thus seem to exhaust competition regulation agencies. Following the notion of agencement by Callon et al. (2007), which refers to the property of assemblages to give agency to their constituent parts, equity markets are thought as relational spaces where people, material legacies and economic geographies meet and construct economic strategies and governance on materials.

Conclusion

The effects of economic and regulatory governance in the countries where firms have assets and operations are rarely integrated in ESG governance considerations in scopes that

go beyond current institutional frameworks. These scopes tend to omit tensions between governance regimes and economic regulation. This paper shows that due diligence processes for mining investment can miss the historical use of corporate equities in nation-making and economic development and thereby distort the ESG risk profile of an asset.

This paper argues that, for mining economics, historical backgrounds of private equity in nation-making and contractual mining governance can limit the institutional strength brought by competition regulation agencies. Thus, the paper suggests integrating domestic economic regulation maturity, domestic political geography histories of private equity and imageries of corporate shares and natural resources into governance criteria of ESG profiling of mining companies, see Fig. 6.

This paper examines responses to equity markets in lithium mining and discusses the ways they shape actions from public governance bodies and ultimately affect ESG risk criteria. This is done through the case of a share acquisition from Tianqi Lithium, a leading lithium mining and lithium materials processing firm in China and Australia, of SQM, the largest producer of lithium from brine resources in Chile. This case remarks tensions between actors involved in economic competition regulation, mining contractual governance and national politics, specifically FNE, CORFO and the Chilean congress.

Studying equity markets in the context of national development and economic regulation is thus critical for unpacking the ways in which interactions between State actors involved in resource governance and competition law

represent risks or premiums for mining ventures. An exercise on this matter is here taken to critically scrutinise equity markets and economic competition regulation in regards to lithium supply in Chile. The paper finds that equity markets have a significant weight on the modes in which corporate actors in material supply chains behave and relate among themselves and with the State, and thus underscore ESG governance risks.

The historical backgrounds of private equities in national economic development are relevant to understand patterns in mining governance that can inform institutional factors that affect governance risk. For example, the histories of nitrate private equities in the post-colony period in Chile determined patterns of equity holdings that led to the lithium ventures existing today. Beyond capital, nitrate shareholdings carried legacies of equity in nation-making and thus affected the behaviour of State actors that aimed to protect them as constituents of sovereignty. The capital of a company took multiple appreciations as being simultaneously the nation, resource sovereignty and a figure of free market. This created a risk for default on the acquisition due to governance factors tied to capital imageries. Importantly, the views on a mining company as constituent of nation-making was passed to its product and material, i.e. lithium, and framed further governance risks for investments on lithium resources and lithium mining infrastructure in the country due to material imageries.

The SQM-Tianqi equity acquisition proved to be highly relevant delimiting the ranges of interventions for public institutions on economic development, governance and competition in face of equity market dynamics and processes. Modes of interaction with and appreciations of the corporation from public governance bodies changed rapidly while the SQM-Tianqi equity purchase materialised, for example CORFO's Eduardo Bitrán and SQM's Julio Ponce left their differences aside—framed by the 2014 lawsuit filed by CORFO to SQM—to request FNE to ban the investment from Tianqi on SQM. This highlights that mapping institutional actors and features of jurisdictions is not sufficient to understand responses and shifts in the public sector to mining investments. Thus, greater detail and systemic approaches are needed to improve governance profiling for mining jurisdictions.

The analysis in this paper finds that competition agencies are not designed nor equipped for dealing with global supply chains, while they are expected to by some voices invested in economic development. The SQM-Tianqi equity transaction empirically shows what Bastida (2020) remarks on the behaviour of the State to foreign investments in mining as not always aligned with settled national economic strategies and policies that favour foreign capital, particularly so when materials categorised as 'strategic' and 'critical' are in question. The SQM-Tianqi equity movement reveals how

economic regulation and corporate governance involved in lithium supply in Chile entangle with each other and how mineral supply politics affects corporate governance through symbolisms of nation-making.

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Declarations

Conflict of interest The authors declare no competing interests.

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