Myriam El Kara, March 2021

Rare earths, the next elements in economic diplomacy and international arbitration

Largely unknown rare earth elements have gained widespread publicity in the last decade thanks to their criticality in the modern, technology driven world coupled with their high concentration in China in all their forms: from raw materials to downstream processed products such as permanent magnets. It is no longer a debate that disputes related to national resources can be decided in arbitrations versus national courts of justice, at least when it comes to their financial and commercial dimensions whether protagonists are private or public entities. Rare earths are however tainted by a history of protectionism in the form of export controls that made their way to the World Trade Organisation's Dispute Settlement Panel, of trade wars, and of restrictive policies which often entail national interests provisions. We will thus visit the grounds that could stop rare earths disputes from being arbitrated as well as the key questions that arbitrators might have to solve in this area from arbitrability to public policy in commercial arbitrations, and national interest exceptions in investor-state arbitrations.

What are rare earths and how do they affect our economy?

If you take a look at Mendeleev's periodic table of chemical elements, you will notice the fifteen lanthanides listed at the bottom. With the accepted addition of two other elements from the table (Yttrium and Scandium), they constitute the rare earth elements. As geologists would put it, these seventeen rare earth elements have been married together in the ground for a very, *very* long time. The reference to 'rare' has less to do with their occurrence rate than with the difficulty it takes to extract them from the minerals they are found in and then separate them in single elements through expensive, chemically intensive and formulaically obscure processes.

For the past two decades the People's Republic of China produced 80 to 95% of the world's rare earths. In addition to having unpronounceable names, these elements didn't attract much attention up until 2010 (or the risks were overlooked).

With the advent of high tech and clean technologies such as permanent magnets which are integral to the functioning of wind turbines, electric vehicles and consumer electronics these elements made their way onto the international political scene. Today, China produces at least 80% of the world's rare earth elements, and for some rare earths such as Dysprosium, it remains the world's only producer[1].

Rare earths upstream production opens to investment and trade

China isn't only the world's primary producer of rare earths; it is also their largest consumer. Even more so, in the last three years China turned into a net importer of these elements due to an increase of its domestic needs beyond its planned production. This should be looked at as a controlled process, where local production of minerals and oxides (the first steps of the supply chain) will be purposefully complemented by imports. China is not shy about its ambition to

[1] John Seaman, *Rare Earths and China. A Review of Changing Criticality in the New Economy*, The French Institute of International Relations (Ifri), January 2019.

retain leadership in rare earth ore, oxide and metal production while increasing control on up to 70 or 80% of downstream value-added production of rare earth related technologies including permanent magnets production (for which it already occupies around 90% of the global total output) and electric vehicles' engines assembly as an example.

As we face a hungrier integrated system, we are witnessing the internationalisation of the upstream production where Chinese state-owned and state-sponsored entities are accelerating international investments in rare earths mines and stepping in international trades to secure import of the necessary unprocessed minerals, while mastering the more valuable downstream industries.
One of the main actors of that strategy is Shenghe Resources a Shanghai-listed rare earths mining and processing company which is already engaged in major rare earths projects in Vietnam, Greenland and Australia. The most notable of its endeavours remains its participation in MP Materials the only rare earths producing mine in the U.S. which was brought out of insolvency in 2017 by a consortium which included Shenghe. In another example, China's CNMC (China Nonferrous Metal Mining Group) signed in 2017 a memorandum with Singapore-listed ISR Capital to act as contractor with rights to purchase products from Madagascar-based Tantalus rare earths project.

Have rare earths become a trade war weapon?
The concentration of minerals, processing capacity and know-how in China is an area of geopolitical concern for importing nations, due to the supply risk it represents.

The first instalment of a trade war around rare earths that the market witnessed dates back to 2010 when China tightened exports quotas but had to drop them in 2015 after losing the case in front of the Dispute Settlement Panel of the World Trade Organization. In the meantime, prices had surged, in some cases by 500 percent or more.

Closer to us, rare earths were star performers in the U.S. – China trade war in 2019 and feature at the top of the recently (September 2020) published list of critical raw materials for the European Union[2]. Similarly, the president of the United-States signed an executive order addressing the threat to the domestic supply chain from reliance on critical minerals from foreign adversaries, which includes rare earths (October 2020 and February 2021)[3].

Despite founded concerns around dependency, one could take the view that rare earths cannot be used as an effective trade weapon as any new restriction on trade would damage China's industrial supply chains which are, by now, dependent on foreign customers in the US, Europe and Japan.

[2] *Commission announces actions to make Europe's raw materials supply more secure and sustainable*, 3 September 2020, Brussels, Press Release.
[3] *Executive Order 13953 Addressing the Threat to the Domestic Supply Chain From Reliance on Critical Minerals From Foreign Adversaries and Supporting the Domestic Mining and Processing Industries,* 30 September 2020; *Executive Order on America's Supply Chains*, 24 February 2021.

Moreover, China's approach to the rare earth industry has been largely driven by domestic concerns including its response to the country's growing environmental crisis by favouring more energy-efficient and seemingly low-carbon technologies (such as wind turbines and electric vehicles) and its management of the country's long-term economic transformation.

Beyond mining ore, China has been developing the technical know-how in rare earth elements separation and their applications since the 90s (further to global trade and investment liberalisation, including China). It will realistically take imports dependent countries years of heavy capital expenditures, research and development, and adequate policy making to compete anew given the technical complexity, skills shortage in the West and environmental toll. Some rare earth minerals are accompanied by radioactive products, such as thorium and radium, and in any case the extraction and refining process uses various forms of leaching and solvent extraction that employ highly toxic chemicals that seriously degrade soil and water quality if not properly treated.

As an illustration, the U.S. Government Accountability Office admitted in a 2010 report (an admission which was reiterated in the 2016 report) [4] that building a fully domestic rare earth supply chain would take from 7 to 15 years to complete once the necessary capital investment to start a mine is secured. This includes processing pilot plants using new competitive technologies (2 to 5 years, provided the infrastructure is in place), start-up time and cost for full production scale (up to 4 years), intellectual property rights in permanent magnet technologies falling back to public domain, and navigating the layer cake of environmental regulation and licensing requirements.

Despite a recent push towards regionalisation of sustainable, independent and robust critical raw materials supply in the West, there is a high degree of probability that rare earth miners outside of China will be left to process their rare earth ore through China's value chain for some time before we can see any viable supply chain diversification.

In the wake of these new trade dynamics and of international investments in rare earth mines, it becomes relevant to understand how rare earths fare in strategic resources geopolitics, national security and public policy exceptions with regards to arbitration as a potential dispute resolution mechanism.

What are the challenges of resolving rare earths related disputes through arbitration?
The main advantages of arbitration are its neutrality, the enforcement capability of arbitral awards and an arbitral procedure that is to a large extent configured by the parties, a feature also referred to as party autonomy. Given the (1) policy driven nature and criticality of rare earths, potential limitations to party autonomy include (2) whether the subject matter of the dispute is arbitrable and whether it infringes on applicable public policy, and, in cases of investor-state disputes, (3) whether national security exceptions apply as embedded in the

[4] United States Government Accountability Office, *Rare Earth Material. Developing a Comprehensive Approach Could help DOD Better Manage National Security Risks in the Supply Chain*, February 2016.

relevant Bilateral Investment Treaties (BITs) or Free Trade Agreements (FTAs) with investment protection mechanisms.

(1) The criticality and policy driven nature of rare earths

Rare earths markets are characterized by policy interventions which can be restrictive such as (a) **yearly production quotas** in line with the Chinese five-year plan on national mining resources and which caps rare earth national production to 140,000T in 2020 (compared to 105,000T limit in 2016), (b) an **export exception in value added tax recovery** on unprocessed rare earths raw material, and potentially (c) **China's first unified Export Control Law (ECL),** a legislation issued on 1 December 2020 for implementation in 2021 which aims at protecting national interests and designates specific products, technologies and services to be protected under the export curbs. It introduces various control mechanisms that resemble certain aspects of the U.S. export control regime. Unlike the U.S. Export Administration Regulation, which mainly focuses on control over equipment, material, software and technology, the ECL explicitly includes 'services' as a type of controlled item (which include technology and data) relating to the maintenance of national security *and the interest* of China, therefore, increasing its scope beyond traditionally sensitive items[5]. In any case, we now find ourselves in a world with at least two sets of export control regimes with extraterritorial effect: that of the U.S. and that of China.

Rare earths are now considered (d) **a critical raw material** by the European Union[6] i.e., a resource for which the industrial risks associated with a supply shortage are high and for which there is no possible substitution (e.g., Dysprosium). In addition to being critical, they are considered as (e) **a strategic raw material**[7] in some countries such as the U.S. i.e., an indispensable resource for state policy or national defence. In either of those two cases, we find a renewed focus on supply chain resiliency and support to domestic mining and processing industries.

(2) The issue of arbitrability and public policy

The limitations to party autonomy as described in article V(2) of the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards state that recognition and enforcement of an arbitral award may be refused if the competent authority in the country where recognition and enforcement is sought finds that: (a) the subject matter of the difference is not capable of settlement by arbitration under the law of that country; or (b) the recognition or enforcement of the award would be contrary to the public policy of that country. We will tackle each of those in turn.

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[5] Freshfiels Bruckhaus Deringer Briefing, *China publishes Export Control Law and establishes a unified export control regime*, 19 October 2020.

[6] *Critical Raw Materials Rare Earths Supply China: A situational White Paper*, April 2020, U.S. Department of Energy*; Final report: Study on the EU's list of critical raw materials*, September 2020.

[7] *U.S. Strategic Material Supply Chain Assessment: Select Rare Earth Elements*, 2016, U.S. Department of Commerce; *Executive Order 13817, A Federal Strategy to Ensure Secure and Reliable Supplies*, 20 December 2017

(2)(a) Arbitrability of rare earths related disputes

If the issue of arbitrability arises, it is linked to the relevant laws of the different states that are, or may be, concerned. These are likely to include: the law governing the party involved, the law governing the arbitration agreement, the law of the seat of arbitration and the law of the ultimate place of enforcement of the award. Whether or not a particular type of dispute is 'arbitrable' under a given law is a matter of public policy for that law to determine. With regards to natural resources such as rare earths, arbitration generally admits that states retain sovereignty over their natural resources in their territories, however, the financial consequences of managing these resources in relation to disputed contracts are arbitrable. A distinction is indeed made between acts of state in its capacity as a state and acts of state in its capacity as a commercial counterparty. In fact, rare earths have already been the subject of at least one (investment) arbitration in 2014 involving a Canadian investor of a rare earth mine in Kyrgyzstan invoking the CIS investors rights convention of 1997[8]. Another investment arbitration is also in the pipeline relating to the expropriation of rare earth element projects by the Government of Tanzania[9].

Nevertheless, the potential importation of 'mandatory rules' either through the law of the seat of the arbitration or through the substantive law of the underlying contract can be seen as a problem of 'limited inarbitrability' as well as an expression of the underlying public policy of the relevant state. Rare earths being an area of policy intervention potentially classified of 'national interest', whether these rules are effectively raised to the level of public policy might surface as an issue for arbitral tribunals to decide upon.

Finally, given the rare earths industry in China is mainly dominated by state or state-related entities (the government consolidated production in the hands of six state owned companies which tend to 'share' their production quota with a number of underlying private companies), the question of subjective arbitrability might also be raised. However, state immunity does not prevent a state or state agency from agreeing to be bound by an agreement to arbitrate contractual disputes. State immunity from *execution* is a more likely hurdle for rare earths disputes arbitration involving a state or state agency party.

(2)(b) Public policy exception in rare earths related arbitrations

Courts tend to construe public policy in a very narrow sense and apply it only when an award's enforcement would violate the forum state's 'most basic notions of morality and justice'. The trend is for this concept's scope to shrink over time, be it with regards to insolvency-related disputes, intellectual property or anti-trust amongst others. It is even construed in some jurisdiction such as France as one of *international* public policy when it comes to international arbitration. It is however worth noting a 2019 decision by the Supreme People's Court[10] where the court seemed to suggest, in an anti-trust related dispute, that, unless explicitly provided

[8] *Stans Energy Corp. and Kutisay Mining LLC v. Kyrgyz Republic (I)*, 30 June 2014.
[9] Montero Mining and Exploration Ltd., a Canadian company, against the Government of Tanzania for the expropriation of the Wigu Hill rare earth element project on the back of amendments of the 2010 Mining Act.
[10] *Shell China Co. Ltd.v Huili Hohhot Co. Ltd.* ([2019] Zhi Min Xia Zhong No.47), 21 August 2019.

otherwise, claims concerning 'public interest' are non-arbitrable under Article 2[11] of the Arbitration Law, which entails an enforcement risk in some cases to tribunals seated in China and internationally[12].

The originality of the rare earths industry stems from the fact that it is morphing from mainly a Chinese domestic one (for which disputes would only be arbitrable in China as Chinese entities are generally prohibited from submitting purely domestic disputes to arbitration outside China and any 'foreign element' would be narrowly interpreted), to an internationally and partially integrated one. Notwithstanding this trend, Chinese counterparts would still be hesitant in accepting foreign seated arbitration clauses in their commercial contracts. A foreign seat would bring with it its own law, mandatory provisions, and would determine issues of arbitrability and public policy. One if not all of the following is thus key to spend time on in negotiations: the applicable law to both contract and arbitration agreement, the choice of the seat, and the choice of the arbitral institution.

(3) The issue of national security

Beyond defence-related activities for which the national security exception was initially established in international investment and trade agreements, concerns around national security have been raised more frequently in recent years in connection to strategic industries, natural resources, and economic crisis[13].

The rare earths industry is no exception with a recent history of **government decisions overriding investment potential** for seemingly political reasons and national security concerns: the U.S. Congress effectively blocked the acquisition of Unacoal (which owned the rare earths mine at Mountain Pass) by Chinese state-owned oil and gas firm CNOOC in 2005, and Australian Foreign Investment Review Board blocked the acquisition of a 51.6% stake in Lynas Corporation by China Non-Ferrous Metal Mining (Group) co. in 2009 requesting for a lower bid to less than majority stake and lower representation at the board to less than half.[14]

As of 2009, only a minority of international investment agreements (IIAs) contained a national security exception which mostly applied to investments' pre-establishment phase. Since then, numerous countries have introduced new or reinforced existing mechanisms specifically dedicated to national security-related investment screening[15]. It is therefore crucial to

[11] 1994 Chinese Arbitration Law, Article 2: "Disputes over contracts and disputes over property rights and interests between citizens, legal persons and other organizations as equal subjects of law may be submitted to arbitration."
[12] Kai-chieh Chan, *China's Top Court Says No to Arbitrability of Private Antitrust Actions,* Kluwer Arbitration Blog, 23 January 2020.
[13] *The Protection of National Security in IIAs*, UNCTAD (the United Nations Conference on Trade and Development), 2009.
[14] John Seaman, *Rare Earths and Clean Energy: Analyzing China's Upper Hand*, The Institut français des relations internationales (Ifri), September 2010, page 23.
[15] *National Security-Related Screening Mechanisms for Foreign Investment: An Analysis of Recent Policy Developments*, UNCTAD (the United Nations Conference on Trade and Development), December 2009

understand the interaction between national security policies and national security exceptions included in investment and trade treaties.
The host state may invoke national security as enshrined in 'Non-Precluded Measures' (NPM) provisions contained in many BITs, limiting the applicability of treaty investment protections to the investor in case of measures justified by essential national security interests. In parallel, the security exception and general exception in the World Trade Organisation (WTO) system have also played an important role in WTO case law[16]. Such exceptions are also found in majority of FTAs with investment provisions.

The role of international arbitration in this context is particularly valuable in the interpretation of the concept of national security. The economic consequences might be all the more serious as emerging economies turn into powerful hubs of capital exporters alongside developed countries, shifting patterns of international investment flows.

Barring the cases where (1) states have limited the scope of their treaties by excluding altogether certain categories of disputes arising out of minerals and natural resources, (such as Jamaica in 1974 under the ICSID Convention)[17], or where (2) IIAs are limited to the post-establishment phase of an investment and national security considerations relate to entry of foreign investors, or where (3) treaties such as some BITs exclude fully or partially the investor-state dispute settlement mechanism concerning measures adopted by the contracting parties for national security reasons, an arbitral tribunal will have to decide whether a national security exception is 'self-judging' or not, a subtle exercise in and of itself.
If the national security exception is non-self-judging, arbitrators are, in general, entitled to review the legality of the relevant measure taken by the host state and to make their own assessment as to whether such a measure can be justified on national security grounds. This would give place to a spectrum of assessments recognising that countries may have different views concerning the intensity of a threat required to trigger the exception clause, and that there is a range of adequate responses to such a threat. The treaty language, the context in which it was negotiated, the concept of 'objective necessity' and possible alternative measures will be determinant.
If the national security exception is self-judging, the host country is not entirely exempt from international responsibility: the good faith requirement gives arbitral tribunals a standard against which to judge the legality of the measure taken by the host state[18]. The body of case law for such analysis remains relatively small, and at the wake of an increased reliance on national security discourse and policies, arbitral tribunals face the difficult albeit necessary task

[16] GATT (General Agreement on Trade and Tariffs) article XXI; GATS (General Agreement on Trade and Services) article XIV *bis*.
[17] ICSID (World Bank's International Centre for the Settlement of International Disputes) Convention, Article 25(4): "Any Contracting State may, at the time of ratification, acceptance or approval of this Convention or at any time thereafter, notify the Centre of the class or classes of disputes which it would or would not consider submitting to the jurisdiction of the Centre. The Secretary- General shall forthwith transmit such notification to all Contracting States. Such notification shall not constitute the consent required by paragraph (1)."
[18] General principle of article 26 of the Vienna Convention on the Law of Treaties of 1969, according to which states have to carry out their obligations in 'good faith'.

of scoping and clarifying, preferably in a harmonious fashion, the determinants of sound exercise of national security exceptions.

Before leaving this subject, it is important to raise that in the absence of any national security exception in an international treaty, the host country may nevertheless be able to justify its measure aimed at restricting foreign investment for national security reasons under the rules of customary international law. Threats of national security are covered under article 25 of the Draft Articles on Responsibility of States for Internationally Wrongful Acts, adopted by the International Law Commission (ILC) at its fifty-third session in 2001[19]. Given the customary international law deals with a narrower spectrum of state actions than international treaties it is doubtful whether customary international law could provide an excuse for protecting strategic industries. It is therefore not a substitute for an otherwise explicit treaty exception, and this is relevant given some jurisdictions have raised rare earths to the level of strategic industry.

In practice, procedures used in international commercial arbitration served as a model for investment arbitrations, be it in the selection of arbitrators, the evidence rules, the conduct of hearings and awards' finality and enforceability. Today, a growing number of claims which could have been brought under a contract are effectively brought at the treaty level, a process which in the hands of arbitrators has ramifications beyond two individuals to a dispute and can possibly impact a whole nation. As such, investment arbitration has faced substantial criticism since the turn of the twenty-first century, claiming it is skewed in favour of foreign investors specifically due to lack of transparency, insufficiently predictable legal standards, lack of opportunities for third party intervention and lack of appellate review[20]. This has prompted the UN Commission on International Trade Law to work on the possible reform of the Invest-State Dispute Settlement (ISDS) framework, along the dimensions of transparency, arbitrators' appointment and consistency in arbitral awards by setting up an appellate body. This comes at an opportune time where economic dynamic has shifted as international investment is not just a one-way street from developed to developing countries: emerging markets have become for some, powerful economic and political counterparts, raising to the challenge of exporting capital and industrial capacity sometimes to the developed economies as illustrated in the rare earths industry.

In conclusion, despite the particularities of rare earths as a commodity and their criticality as embodied in a plethora of restrictive policies none of the arguments of arbitrability, public

[19] Article 25 on Necessity: '1. Necessity may not be invoked by a State as a ground for precluding the wrongfulness of an act not in conformity with an international obligation of that State unless the act: (a) Is the only way for the State to safeguard an essential interest against a grave and imminent peril; and (b) Does not seriously impair an essential interest of the State or States towards which the obligation exists, or of the international community as a whole. 2. In any case, necessity may not be invoked by a State as a ground for precluding wrongfulness if: (a) The international obligation in question excludes the possibility of invoking necessity; or (b) The State has contributed to the situation of necessity.'

[20] Gary Born, *A New Generation of International Adjudication*, Duke Law Journal, January 2012, Vol. 61, Number 4, page 842.

policy or national interest are real obstacles to arbitrating rare earths related disputes be it for the ones based on private contractual relationship or the ones involving a state. Adjudication of disputes involving states has shifted from an absolute state jurisdictional immunity to a restrictive one, and international commercial arbitration has gained terrain alongside investment arbitration. After all, as Charles G. Fenwick puts it as early as 1924: 'the whole history of modern arbitration has been the history of attempts to outlaw war by narrowing the field within which it could be resorted to. Progress has been made by gradually eliminating the cases which appeared to involve the least sacrifice of national interests'[21]. Where economic diplomacy (in its modern sense) will fail to anticipate on or settle a dispute, international arbitration will serve as the next forum where the question of public policy and the nature of national interests involved in the dispute can be raised.

[21] Fenwick, C. G., "*National Security and International Arbitration*", The American Journal of International Law, 1924, vol. 18, no. 4, pp. 777–781.