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국제학석사학위논문

**A Study on the Impact of Economic
Measures upon Diplomatic Conflicts:
Focus on China's Export Ban of Rare Earths to Japan**

외교마찰 시, 경제 제재의 영향에 관한 연구:
중국의 대일(對日) 희토류 금수조치를 중심으로

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권정화

**A Study on the Impact of Economic
Measures upon Diplomatic Conflicts:
Focus on China's Export Ban of Rare Earths to Japan**

Thesis by

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Seoul, Republic of Korea**

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Abstract

In 2010, China's export ban of rare earths elements to Japan was detected in response to Japan's detention of Chinese captain who was fishing near Diaoyu/Senkaku Islands, water at conflict. The incident was a significant event between the two countries due to the fact that it was the first time for China to impose an economic measure against Japan over the territorial conflict. In this connection, this thesis aims at examining the significance of China's use of rare earths export ban as a key economic factor that led a release of the Chinese captain by comparing other economic figures; trade restriction such as import and export, FDI, and business relations between China and Japan during the same period of time. Moreover, this study also aims at reevaluating consequences of China's action and the following impacts on both China and Japan. Conclusively, comparison of economic figure shows that China's use of rare earths export ban with price increase by export quota application and Japanese business pressure were significant factors that compelled Japan's decision to release Chinese captain under Diaoyu/Senkaku dispute in 2010. Moreover, evaluation of the impacts of export ban to both China and Japan shows that China's aggressive action actually hurt not only Japan who was depicted as a "weakness" but also China who was "winning". The incident had changed the structure of Sino-Japanese rare earths trade and escalated more of security conflicts which also strengthened anti-sentiments among the public.

Key words: Sino-Japanese relations, Diaoyu/Senkaku Islands, Rare earths dispute, Export ban, Economic measures, Business Risk

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I. Introduction

In September 2010, China's export ban of rare earth elements to Japan was detected in response to Japan's detention of Chinese captain who was fishing near Diaoyu/Senkaku Islands¹, water at conflict. China's aggressive action though denied by the government shocked Japan as well as the international because even if there had been several conflicts and escalations between China and Japan, that was the first time China carried out an economic measure in dealing with territorial dispute against Japan. Following the Japanese government's decision of releasing the Chinese captain, the Japanese government was criticized of its 'weak' diplomacy and strategy whereas the Chinese government consolidated its position in the region.

1-1. Research Purpose and Significance

This thesis aims at examining the significance of China's use of rare earths export ban as an economic measure against Japan by comparing significance of other economic figures during the same period; import and export regulation, FDI, and business risk of Japanese companies located in China, and also aims at evaluating the following consequences of China's action that affected to both China and Japan.

Since the incident in 2010, many studies and media have focused on analyzing

¹ Writing of Diaoyu/Senkaku Islands is in alphabetical order.

rare earths material productions and China's position as a dominant supplier of the material and as a rising power. *The Analysis on the Strategic Protection of China's Rare Earth Resources and its Implications*² by Furong Jin and Jonghyuk Oh (2011) focuses on future of the rare earth resources industry under China's tightened restriction policies for its domestic industry and major consuming countries that leads implication for South Korea. *Rare Earth Elements Resources War*³ by Kim Dong-hwan (2011) analyzed China's rare earths policy and how major consumers deal with China's rare earths export quota system. Kim Kyu Pan (2012), *The Rise of the Chinese Economy and Sino-Japanese Economic Relations*⁴, examined the rise of the Chinese economy as one of the G-2 members in the 21st century, and further inspects the so called 'China Risk' and 'Chinese Threat to Japan' arguments in terms of economic perspective. In other way, China's embargo on rare earth exports to Japan and its export restriction system became an interesting issue for international trade law under WTO rules and systems. In regards to the impact of China's export restriction to Japan, these studies mainly focus on that China's dominant position as the number one supplier in the world directly threatened Japan who is the biggest consumers of China knowing that China's export ban would hurt Japan's relevant industry, or on that China's economic growth as a rising power. In line with China as a number one supplier to Japan, media in both countries reported the incident as the major driving

² Furong Jin and Jonghyuk Oh. 2011. *The Analysis on the Strategic Protection of China's Rare Earth Resources and its Implications*. Korea Institute for International Economic Policy

³ Kim Dong-hwan. 2011. *Rare Earth Elements Resources War*. Seoul. Miraebok

⁴ Kim Kyu Pan. 2012. *The Rise of the Chinese Economy and Sino-Japanese Economic relations*. Korean Journal of Japanese Studies. Vol.6

force of Japan's decision. However, this thesis more importantly sheds light on the significance of China's use of export ban of rare earths against Japan by comparing rather feasible economic figures like import and export restriction, FDI and business aspects between the two nations during the same period to find out if the export ban itself was the only economic factor that led Japan's decision despite the fact that the territory is one of the core national interests among others. Moreover, this thesis argues rare earths embargo as a triggering point of consecutive escalations and conflicts between China and Japan by evaluating the consequences of the China's measure which affected to both China and Japan; structural changes in Japan's import dependency on China's rare earths materials, worsened economic exchanges, and security rebalancing in that region.

II. Research Design

2-1. Research Question 1

At that point in time, Japan and China's economic ties and exchanges were active and developing than before. Active economic exchanges were reflected by the fast-growing trade relations, FDI, and business cooperation that will be elaborated more in this paper later. In that sense, the research questions are raised regarding that whether the rare earths exports ban is the only economic measure for China to put pressure on Japan during the dispute in 2010. In other words, was the exports ban the only factor that pressure Japan to release the captain? Considering the two countries' active economic exchanges, China could have restricted other economic measures, such as import and export, FDI, business risk that is hard to be recognized by the international and export quota, against Japan to take a better position in any conflicts for some years. Then, is there a possibility China took all these measures, so that Japan felt more serious pressure not only on high-tech industry, rare earths elements are the essential components, but on its whole economy? Even if some might raise these questions, media and experts generally said China who was taking the economic measure won over Japan failing at diplomacy. Research question is to be evaluated by examining China-Japan import and export relations during the past 5 years before the incident, balance of trade focusing on trade deficit with China in total trade deficit with

the world, FDI relations especially from 2008 to 2010, and a Toyota case that shows business pressure and expected to be concluded that China's export ban of rare earths elements was the not only factor which drove Japan's decision. This comparison would imply the possibility that China as a growing economic actor is in a better position to effectively force economic measures against a counterpart, Japan.

Hypothesis 1: In 2010 dispute, China's use of the economic measure was not the only factor. Rather China imposed unpublished measures as well as export quotas that led Japan's decision to release the Chinese captain.

2-2. Research Question 2

As a result of embargo, Japan had been harshly criticized of "failure" in diplomatic conflict with China domestically due to stepping backward of Japan by releasing the captain after the signal from China. Some analyzed that Democratic Party of Japan (DPJ) at that time was unfamiliar with how to deal with such situation in line with previous governments.⁵ Major media and newspapers in Japan and China generally judged that China this time won over Japan especially regarding the fact that the territory is a core national interest for both countries. The foreign media also took a close look on this case and defined China's reaction as unprecedentedly assertive.⁶ Regarding territorial disputes and challenges to sovereignty over its people, it is totally rational for China to deal with tough action to secure its nation. Following from the

⁵ Alstair Iain Johnston. 2013. *How New and Assertive Is China's New Assertiveness?*. International Security. Vol.37(4). p.22

⁶ Alstair Iain Johnston. 2013. p.22

China's aggressive reaction, Japan was not able to take effective leverages and eventually had to release the Chinese captain before Japan enforce its domestic legal process. In international dispute, usually “when one country takes a tough stance, its opponent is likely to do the same, In particular when it comes to the security of its land and nationals.”⁷ In this sense, China was more successful in that the strong and immediate action helped to solve the issue to China's satisfaction whereas Japan failed to enforce its own jurisdiction and seemed to surrender to Chinese pressure. However, it is important to evaluate all the consequences following the incident for both countries. Would it be really fair to say that China was a winning party? Or did Japan really lose in the dispute? In this regard, this paper argues that the consequences following the incident and China’s action of taking economic measures need to be evaluated in the perspective of both China and Japan, rather than just a losing or wining.

Hypothesis 2: As a result of China's embargo against Japan, Japan’s rare earths industry was damaged immediately while China was also negatively affected in its rare earths export and security structure toward Japan.

2-3. Research Methodology and outline

This thesis is differentiated from prior research in respect of comparing rare earths export ban as the driving force during the incident to other economic measures

⁷ Sun-won Park. The East China Sea Dispute: Short-Term Victory and Long-Term Loss for China? (2010, November 1). *Brookings*. Retrieved from <http://www.brookings.edu/research/papers/2010/11/01-east-china-sea-park>

which may not be publicly recognized during the same period and of suggesting that the trade and security conflict in 2010 became a triggering point of current security situation, anti-sentiment, and economic relations between the two countries.

Following the introduction and research design, literature review of the third section aims at offering a general background of Diaoyu/Senkaku Islands dispute and narration of boat collision incident surrounding the water at conflict in 2010. As a continuation, the importance of rare earths as a dominant supply and a biggest consumer to both of the countries is elaborated that also shows the reason behind China's use of export ban of rare earths to Japan. To support the idea, theories that explain the relationship of economic interdependence and conflicts will offer more theoretical backgrounds. The assessment of the China's embargo of rare earths elements to deal with territorial and diplomatic disputes with Japan by China and Japan as well as the international is followed. In the fourth section, the significance of export ban of rare earths is evaluated by comparing other economic measures and leads the conclusion of Japan's strong anxiety felt from pressure on Japanese business in China and China's growing export restriction. In second and third part of the fourth section, the impacts of China's export ban both to China and Japan are examined by linking the economic and diplomatic relationship between the two nations that leads the conclusion in which China's aggressive action actually hurt Japan but as well as China. Finally this paper again evaluates China's export ban in 2010 and will be concluded with the short implication of the case to the international and the neighboring countries.

III. Literature Review

3-1. 2010 Diaoyu/Senkaku Islands Boat Collision Incident

The Diaoyu/Senkaku Islands dispute concerns a sovereignty of a group of uninhabited Islands known as the Diaoyu Islands in the People's Republic of China (PRC) and the Senkaku Islands in Japan.⁸ Japan argues that its sovereignty over the Senkaku Islands accords with the international law, namely the internationally accepted legal theory of terra nullius meaning land belonging to no one.⁹ China argues that documentary evidence prior to the First Sino-Japanese War indicates Chinese possession and that the territory is accordingly a Japanese seizure that should be returned to as the rest of Imperial Japan's conquests that were returned in 1945.¹⁰

The 2010 Diaoyu/Senkaku Islands boat collision incident occurred on the morning of September 7th, 2010 when a Chinese trawler, Minjinyu 5179, operating in disputed waters collided with Japanese Coast Guard's patrol boats near the Diaoyu/Senkaku Islands. The crew was sent back to China while the Chinese captain was detained.¹¹

The collision and Japan's subsequent detention of the captain escalated a

⁸ Writing of the Diaoyu/Senkaku Islands is in alphabetical order.

⁹ Tadashi Ikeda. Getting Senkaku History Right. (2013, November 26). *The Diplomat*. Retrieved from <http://thediplomat.com/2013/11/getting-senkaku-history-right/>

¹⁰ Diaoyu Dao website (www.diaoyudao.org.cn) organized by China Internet Information Center.

¹¹ Alstair Iain Johnston. 2013. *How New and Assertive Is China's New Assertiveness?*. *International Security*. Vol.37(4). p.22

diplomatic standoff between China and Japan. When China's repeated demands for the release of the captain were refused and the detention of him extended for a further 10 days, the Chinese government announced that it had suspended high-level exchanges with Japan, and would take strong leverages and Japan will bear all the consequences.¹²

The arrest and detention quickly spilt over into other aspects of the two countries' extensive economic and political ties. Though denied by the Chinese government, it was reported that China blocked exports of rare earth minerals to Japan who has the top importer such as the world's biggest automaker Toyota from China with a series of administrative regulations and delay. Detecting the serious risks to Japan's economy, Japan released the detained the Chinese captain without charge and allowed to return home. In China the overall event is perceived as a diplomatic victory, while in Japan being unable to take an effective leverage against China and eventually freeing the Chinese captain before bringing formal charges to him was criticized.

3-2. Importance of Rare Earths Elements to China and Japan

Rare earth elements refer to rare earth elements which is a set of seventeen chemical elements, specifically the fifteen lanthanides, as well as scandium and yttrium. Despite their name, rare earth elements are relatively plentiful in Earth's crust.

¹² Martin Fackler and Ian Johnson. Arrest in Disputed Seas Riles China and Japan. (2010, September 19). *The New York Times*. Retrieved from <http://www.nytimes.com/2010/09/20/world/asia/20chinajapan.html>



Figure 1. Rare Earths

Rare earths are very essential components of not only most of electronic devices such as smart phones and LCD monitors but also green technology such as eco-friendly car and solar light panel that use rare earth components as a key resource. Moreover, rare earths are essential elements in developing new weapons.

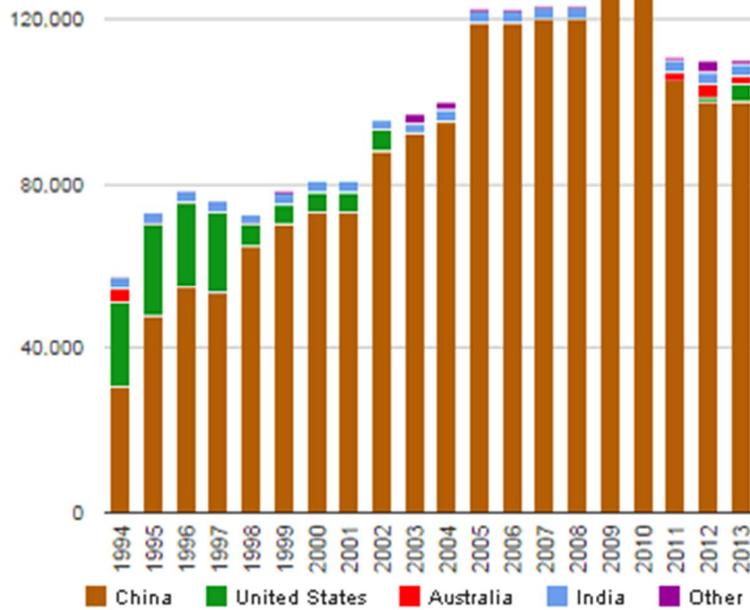


Figure 2. Global Production of Rare Earth Oxides

China produces over 95% of the world's rare earths supply and sits on the largest rare earths elements reserves.¹³ Almost all of the world's heavy rare earths come from Chinese rare earths sources. China is in a position as the predominant supplier where it can use rare earths supply as its strategic resource.¹⁴ As for Japan, China is the major supplier of rare earths elements since Japan's leading industries are using rare earths as an essential component.

¹³ See Figure 2. The American Chemical Society. 2016. *Special Report: Rare Earth Elements in 2016*. Retrieved from <http://www.wealthdaily.com/report/rare-earth-elements-in-2016/1712>

¹⁴ Wayne M. Morrison and Rachel Tang. 2012. *China's Rare Earth Industry and Export Regime: Economic and Trade Implications for the United States*. Congressional Research Service

3-3. China's Use of Economic Measure

Economic sanctions are defined as the withdrawal of customary trade and financial relations for foreign and security policy purposes. Governments and multinational bodies impose economic sanctions to try to alter the strategic decisions of state and non-state actors that threaten their interests or violate international norms of behavior.¹⁵ As it is clear by the definition of economic sanction, China's use of export ban of rare earths against Japan is in line with economic sanction. Under the situation of diplomatic conflict between China and Japan, China imposed economic measure that controlled export of rare earths material to Japan. China's use of economic measure with its dominant position formed an unfavorable environment for Japan's security as well as economy. Consequently Japan agreed to release Chinese captain only a few days after China's export ban.

In March 2004, for the first time since 1996, seven Chinese anti-Japanese activists landed on Uotsurijima (Japanese name) that is located in Senkaku Islands. When the Japanese police made arrests, the Chinese Foreign Ministry protested, calling it a serious violation of Chinese sovereignty. The arrests were made under the immigration management law which includes a clause on expulsion of illegal foreign trespassers. But the Japanese government did not want any further complications that might ruin the planned visit to China by the Japanese foreign minister, and was satisfied to have demonstrated effective control over the Senkaku Islands by arresting

¹⁵ Council Foreign Relations. 2015. *What are economic sanctions?* Retrieved from <http://www.cfr.org/sanctions/economic-sanctions/p36259>

and expelling the Chinese. A Japanese journal reported that there was a Japanese pledge to China following the incident that in future an intruder would not be put in detention but not only arrested as long as it was not a serious case. In turn China agreed to prevent the departure of vessels with protesters from its harbors. Such an understanding has not surprisingly been denied by the Japanese as well as by the Chinese government.¹⁶

In light with boat collision incident surrounding Diaoyu/Senkaku Islands in 2010, above case in 2004 has a common aspect, which Japan arrested or detained Chinese people who were involved in the cases. However it's noteworthy that Japan and China somewhat peacefully reached an agreement and even without any means of escalation for both countries' people in 2004 whereas China responded with very aggressive measure in 2010. What caused China to react in such way in 2010? This paper focuses on China's economic growth as a driving force of using its economic power to secure national interest against Japan.

¹⁶ Reinhard Drifte. 2014. *The Japan-China confrontation over the Diaoyu/Senkaku Islands-Between "shelving" and "dispute escalation"*. The Asia-Pacific Journal. Vol.12(30). p18

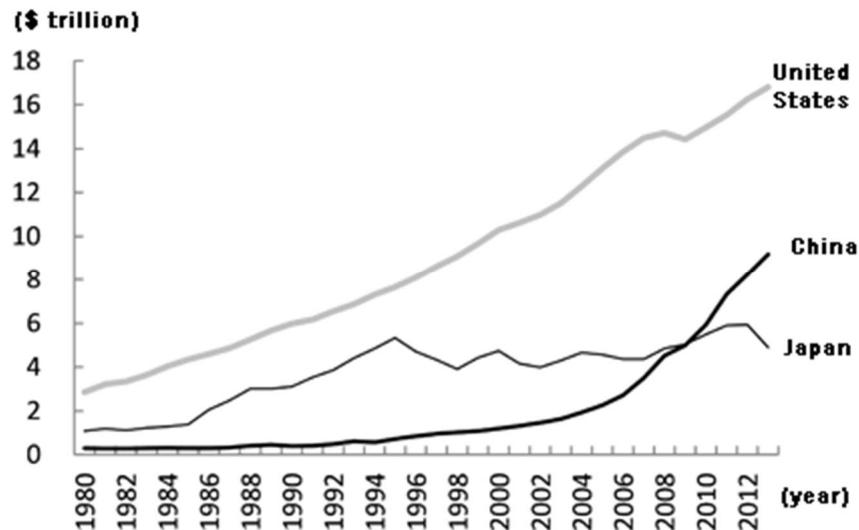


Figure 3. China's Rapidly Expanding GDP

Starting from 2010, China overtook Japan to become the second largest economy in the world and became the Group of Two (G2).¹⁷ In 2000s, China's economic growth has been considered as a threat to Japan's economy. "China risk" or "China threat" appeared on mass media in that days and this reflects Japan's anxiety about China's growth.¹⁸ China was well aware of its economic power and Japanese media also gave impression the recognition of China's growth. Regarding the 2010 case, China's economy was capable enough to influence the global in any way possible, and apparently Japan's technology industry was suffered due to the nature of material

¹⁷ See Figure 3. Chi Hung Kwan. 2014. *Is "China as Number 1" Ultimately an Illusion? – China's GDP surpassing that of the United States is simply a matter of time*. Research Institute of Economy, Trade and Industry (RIETI). Retrieved from <http://www.rieti.go.jp/en/china/14050201.html>

¹⁸ Kim Kyu Pan. 2012. The Rise of the Chinese Economy and Sino-Japanese Economic relations. *Korean Journal of Japanese Studies*. Vol.6. p125

importation structure.

In this regard, Diaoyu/Senkaku Islands dispute proved that China's economic growth is a real rather than an image making done by China. Export ban of rare earths to Japan is also in line with China's showing off of its economic growth and the influence to Japan as well as to the global.

3-4. Theories of Economic Interdependence and Conflicts

Traditionally, deepened interdependence creates less likelihood of escalating conflicts between actors according to liberal's school of thoughts. Regarding the relationship and economic exchanges between China and Japan, it is expected that their interdependence would foster peace in the region.

“Liberals argue that economic interdependence lowers the likelihood of war by increasing the value of trading over the alternative of aggression: interdependent states would rather trade than invade. Levels of interdependence and expectations of future trade, considered simultaneously, lead to new predictions. Interdependence can foster peace, as liberals argue, but this will only be so when states expect that trade levels will be high into the foreseeable future. If highly interdependent states expect that trade will be severely restricted-that is, if their expectations for future trade are low-realists are likely to be right: the most highly dependent states will be the ones most likely to initiate war, for fear of losing the economic wealth that supports their long-term security. In short, high interdependence can be either peace-inducing or war-inducing, depending on the expectations

of future trade.”¹⁹

Regarding the benefits gain from bilateral trade, the conflicts between the two countries were unlikely. However if we take a perspective of realist, growing economic interdependence is likely to occur security competition due to a fear from cutoff or blackmail from counterpart.²⁰ This realist also views that specialization in production and trade of complementary products (particularly manufactured goods for raw materials) will build greater control over sources of supply and markets for its goods.²¹ This theory directly applies to the incident, knowing that the China’s dominant position and its use of the embargo on rare earths against Japan.

“For John Mearsheimer, nations that "depend on others for critical economic supplies will fear cutoff or blackmail in time of crisis or war." Consequently, "they may try to extend political control to the source of supply, giving rise to conflict with the source or with its other customers." Interdependence, therefore, "will probably lead to greater security competition.”²²

Knowing that China makes its resource as a strategy, coercion theory explains appropriately the case. While China has enjoyed the economic growth over the past

¹⁹ Dale Copeland. 1996. *Economic Interdependence and War: A Theory of Trade Expectations*. International Security. Vol.20(4). p.5-7

²⁰ Dale Copeland. 1996. p.10

²¹ Dale Copeland. 1996. p.10

²² Dale Copeland. 1996. p.10

few years with the GDP growth and abnormal national savings²³, China seems to expand its influence in the region as well as in the international. “Coercion is generally defined as convincing an actor to choose to comply with a given demand by imposing or threatening to impose costs on undesirable courses of action, without resorting to brute force.”²⁴ In the case of Diaoyu/Senkaku Islands dispute in 2010, China seemed successfully coerced Japan to impose cost of detaining Chinese captain.

3-5. Assessment of China's Embargo of Rare Earths Export to Japan

Until the 2010 rare earths dispute, Japan mostly depended on China as a major supplier of rare earths material.²⁵ China instituted an export ban on shipments of rare earth oxides to Japan in response to the detainment of Chinese fishing boat captain by the Japanese Coast Guard at the Diaoyu/Senkaku Islands.

²³ Shane Bilsborough. 2012. *The Strategic Implications of China's Rare Earths Policy*. Journal of Strategic Security. Vol.5(3). p.5

²⁴ Shane Bilsborough. 2012. p.5

²⁵ See Figure 4. Nabeel A. Mancheri and Tomoo Marukawa. 2016. *Rare Earth Elements: China and Japan in Industry, Trade and Value Chain*. ISS Contemporary Chinese Research Studies. No.17. p69

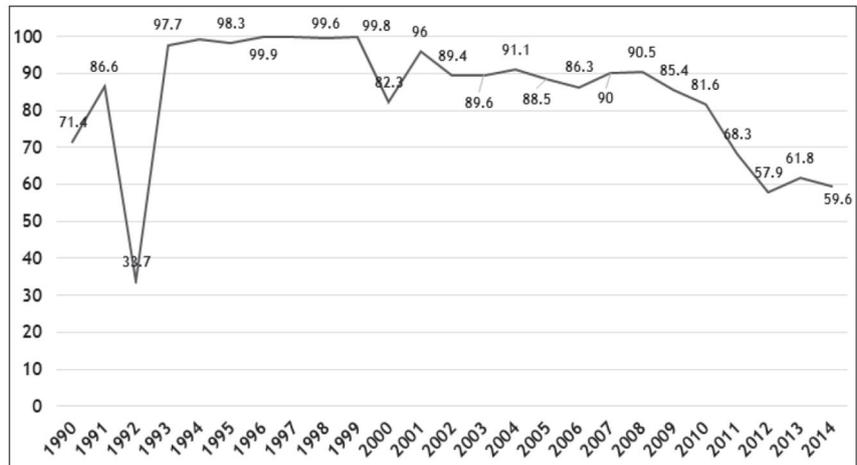
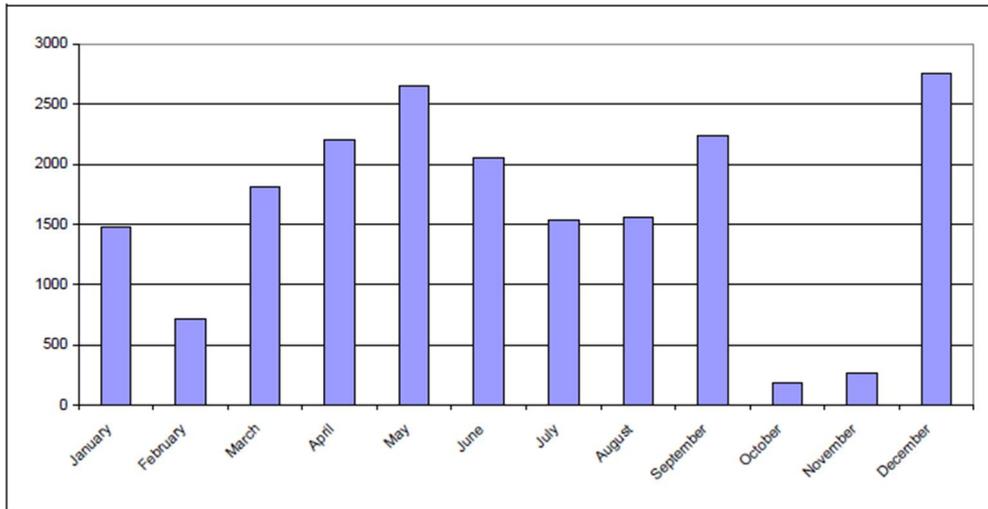


Figure 4. Japan's Rare Earth Dependence on China (Unit: %)

China denied the reports if China had prevented shipments of the rare minerals to many of Japan's top exporters, such as the world's biggest automaker Toyota, relying on to make cutting-edge products ranging from car batteries to computers. But traders in Japan said China had blocked exports to Japan of key minerals by slowing down administrative procedures at the ports in Shanghai and Guangzhou to prevent materials being loaded on ships.²⁶

²⁶ See Figure 5. Since the incident occurred in September 2010, monthly rare earths export of China to Japan was cut down to almost 1/5. Wayne M. Morrison and Rachel Tang. 2012. *China's Rare Earth Industry and Export Regime: Economic and Trade Implications for the United States*. Congressional Research Service



**Figure 5. Monthly Rare Earths Exports of China to Japan in 2010
(Unit: Metric tons)**

When Japan's total import of rare earths decreased comparing 2010 to 2011, imports from other countries significantly increased or slightly decreased. It is noteworthy that during the same period imports from China dramatically decreased, and the amount even more declined almost half in 2012. Japan was concerned about supply price of rare earths and relevant industry. Consequently, Japan felt compelled to free Chinese captain. But China reiterated that Japan's detention of the captain had been "illegal and invalid".²⁷

China's aggressive action had shocked the world and attracted many attentions even though China officially declined its export ban against Japan and emphasized its

²⁷ China blocked exports of rare earth metals to Japan traders claim. (2010. September 24). *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/finance/china-business/8022484/China-blocked-exports-of-rare-earth-metals-to-Japan-traders-claim.html>

sincere efforts to abide by international rules and norms. Many countries' media paid very close attention to China's enforcement of economic measure in order to handle its diplomatic dispute because China was also a member of WTO. It also shocked the international because it was the first time for China to use an economic measure against Japan in dealing with Diaoyu/Senkaku Islands dispute since China has become the Group of Two (G2).

IV. Analytical Framework

4-1. Significance of Export Ban of Rare Earths

China's use of economic measure in dealing with the dispute definitely shocked Japan's industry. Japan's leading technology and industry using rare earths elements were suffered from increase of rare earths import price and the supply of rare earths because China was the biggest supplier to Japan. Consequently Japan's leading industry like electron, machines, and automobile was directly hit by supply structure. Japan was afraid of more serious shock to domestic economy and major industries, so that Japan came to a decision to release the Chinese captain.

4-1-1. Import restriction

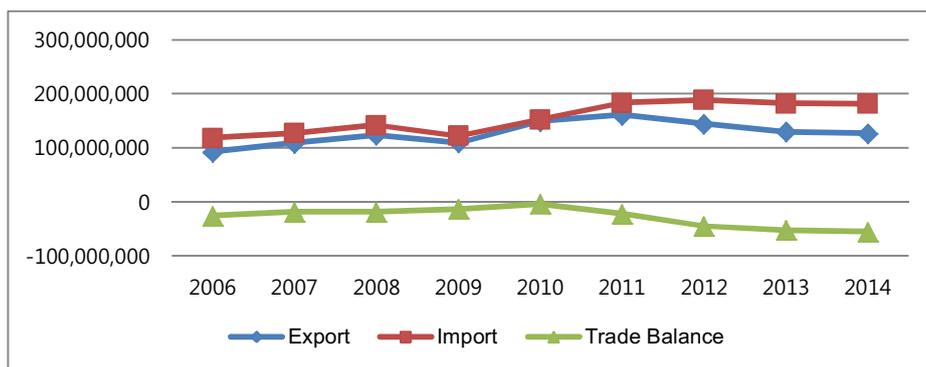


Figure 6. Trade of Japan with China

Looking at China's import restriction against Japan would be one of the methods to find out whether China takes an economic leverage against Japan other than the embargo. The graph above shows that Japan's import value from 2009 to 2011 consistently increased.²⁸ Also the export value increased during the same years. In terms of trade balance with China, it is deficit for Japan meaning Japan imported much more than exported in 2011.

Table 1. Total Trade Value of Japan with China

Year	Total Export	Export	Import	Balance of Trade**	Trade Deficit (%)***
2000	51,654,197,760	3,274,447,888	5,941,358,135	-2,666,910,247	5.16
2002	52,108,955,735	4,979,795,581	7,727,792,563	-2,747,996,982	5.27
2004	61,169,979,094	7,994,233,171	10,198,963,424	-2,204,730,253	3.60
2006	75,246,173,392	10,793,696,067	13,784,370,438	-2,990,674,371	3.97
2008	81,018,087,607	12,949,889,116	14,830,405,945	-1,880,516,829	2.32
2010	67,399,626,696	13,085,564,799	13,412,960,198	-327,395,399	0.49
2012	63,747,572,215	11,509,143,901	15,038,787,251	-3,529,643,350	5.54
2014	73,093,028,311	13,381,487,410	19,176,450,101	-5,794,962,691	7.93
2015	75,613,928,862	13,223,350,314	19,428,811,556	-6,205,461,242	8.21

*Unit: 1000YEN

** Balance of trade with China

***Percentage of trade deficit with China (Balance of trade/Total export*100)

²⁸ See Figure 6. JETRO, Japan External Trade Organization. Retrieved from <https://www.jetro.go.jp/en/reports/statistics/>

However if we compare trade deficit against China to total trade deficit against the world, China's share is decreasing.²⁹ It means that general trade relations between China and Japan weren't affected significantly during the dispute in 2010. Rather it seems that the two countries kept easy trade relations until 2011 in terms of trade balance.

4-1-2. Foreign Direct Investment and Business Risk

Foreign Direct Investment indicates that a country makes profit out of overseas operations. In this sense, an investor cannot help but paying attention to business and operation environment of FDI destinations. As China joined WTO in 2001, it became a huge business opportunity for the global. Global companies expected to enter a big market, China, and targeted China's vast domestic demand and consumers. As for Japan, China was also an attractive investment destination and this means investment and business environment regulated by the Chinese government became an important concern. If investment of Japan going into China was significant amount, it would give China a more favorable position to regulate businesses and investors located in China.

²⁹ See Table 1. Trade Statistics of Japan, Ministry of Finance. Retrieved from <http://www.customs.go.jp/toukei/srch/indexe.htm>

Table 2. FDI Outflow of Japan by Destination

Year	Total	China		U.S.A.		EU	
		Amount	%	Amount	%	Amount	%
2008	130,801	6,496	4.97	44,674	34.15	22,939	17.54
2009	74,650	6,899	9.24	10,660	14.28	17,039	22.83
2010	57,223	7,252	12.67	9,193	16.07	8,359	14.61
2011	108,808	12,649	11.63	14,730	13.54	36,052	33.13
2012	122,355	13,479	11.02	31,974	26.13	29,023	23.72
2013	135,049	9,104	6.74	43,703	32.36	30,999	22.95
2014	136,347	10,389	7.62	48,329	35.45	26,117	19.15
2015	130,752	8,867	6.78	44,893	34.33	33,762	25.82

*Unit: million USD

As shown in the above table, Japan's FDI is spread to many other destinations.³⁰ In particular, the U.S. and EU countries are the biggest FDI destinations and China is the following FDI destination of Japan. FDI going into China was rather increasing until 2010 and began to downfall in 2011. It kept almost same level in 2012 then dropped about half of a year ago. Knowing that China had been an attractive market for Japanese business community to invest, it seems Japan rather lost its interests in investing China for some reasons since 2013.

It is unfair to say China is in the position where it could strategically regulate or restrict investment from Japan when China intends to leverage in 2010. Also, FDI in

³⁰ See Table 2. JETRO, Japan External Trade Organization. Retrieved from <https://www.jetro.go.jp/en/reports/statistics/>

2010 rather increased comparing to prior 3 years. Japan's FDI toward China is insignificant in a sense that China is not in a position to use Japan's FDI as leverage in dealing with any diplomatic conflicts

The FDI amount itself was insignificant to argue the relationship between the FDI and the territorial conflict. However, a business relation between China and Japan is only up to the two countries which means it is hard to be recognized by the international if any business disadvantage for involved parties occur. When Japanese companies do their business in China, they always have to keep in mind the two countries' diplomatic and security relationships.

Table 3. Joint Venture Termination between Japan and China

Year	Company	Partner Company	Type	Difficulty
Jul 2009	Brother Industries	中國標準縫紉機公司	Industrial sewing machine manufacture	Acquiring shares, China sold the shares claiming business condition deterioration
Sep 2009	Nippon Life Insurance	上海廣電集團	Insurance	China terminated joint venture due to management crisis.
Sep 2009	MarkTec	上海材料研究所銅羅探傷材	Manufacturing of analyzer	After contract expiration, joint venture was terminated due to different management policies
Jan 2010	Daihatsu Motor	一汽吉林汽車	Automobile	Withdrawal of business due to poorly selling
Jun 2010	Miyoshi Oil and Fat	南僑化學工業股份	Edible oil and fat	Selling the shares due to different management policies

As shown in Table 3, some Japanese companies entered China as joint ventures contracted with Chinese state owned enterprises.³¹ However, in many cases, China is the one who break the contract and withdraw from joint ventures. These cases are considered as a business risk that Japanese companies faced when they enter China. Even when a territorial row is escalated, Japan is taking more risks. In case of 2010

³¹ See Table 3. Kim Kyu Pan. 2012. The Rise of the Chinese Economy and Sino-Japanese Economic relations. Korean Journal of Japanese Studies. Vol.6. p135

boat collision at Diaoyu/Senkaku Islands and the Japan's delay to release the Chinese captain, Japanese retailing company, Ito-Yokado, had to temporarily close four of their stores located in Sichuan and Chengdu in China due to anti Japanese demonstration. Another case is that Japanese venture company, EL Stream, concluded of a contract with two of Chinese state owned enterprises in May 2010. Along with the Diaoyu/Senkaku incident, these Chinese companies withdrew from the contract with their own explanation.³²

Another notable case that Diaoyu/Senkaku conflict affected Japanese company's business activity is Toyota Motor Corporation. Toyota in 2005 began production of Prius, gasoline-electric hybrid vehicle, in China and it was the first time producing outside of Japan. In 2010 Toyota had suggested production plans of Prius before the rare earths embargo in February 2010 but it was postponed since Jilin province government had not approved their production plans. During the approval period, Japanese media reported that China's export ban of rare earths elements was actually enforcing technology transfer of a permanent magnet to China. Japan had been reluctant to produce cutting edge of hybrid vehicle motor at China's plant. Some of Chinese companies producing a permanent magnet also are provided license by Japan, so that these Chinese companies are unable to get transferred Japan's advanced technology.³³ Suddenly in 2011 Toyota announced that it began production of Prius

³² Kim Kyu Pan. 2012. p.134-136

³³ Kim Kyu Pan. 2012. p.134-136

jointly with China's FAW Group Corporation at Toyota's Changchun Plant.³⁴ It was after China's signal of rare earths export shipment restriction. Japan who had been afraid of technology transfer by locating production base in Chinese plant began its production of Prius. Kim Gyu-Pan says that it is not so clear if Toyota's production at its Changchun Plant was a following decision of rare earths embargo of China or a strategic decision to strengthen its competitiveness in Chinese market, but it is important case that Diaoyu/Senkaku dispute had a spillover effect to business for both countries.³⁵

4-1-3. Export Quota Management

It is quite obvious that China has cut down the export amount of rare earths elements by imposing the export quota system.³⁶ As the export quota of Chinese rare earths elements decreased, the global price of the material skyrocketed. Consequently the major importer of Chinese rare earths, Japan, has been directly hurt by the price increase. In the long term, however, the China's strategic actions that both of the embargo and the export quota alarmed Japan's rare earths import structure and made Japan to have various supply sources.

³⁴ Toyota Begins Production of Current Model 'Prius' in China. (2011, December 19) *Toyota Global Newsroom*. Retrieved from <http://www2.toyota.co.jp/en/news/11/12/1219.html>

³⁵ Kim Kyu Pan. 2012. *The Rise of the Chinese Economy and Sino-Japanese Economic relations*. Korean Journal of Japanese Studies. Vol.6. p144

³⁶ The data is based on the overseas market statistics from KOTRA. See Figure 7.

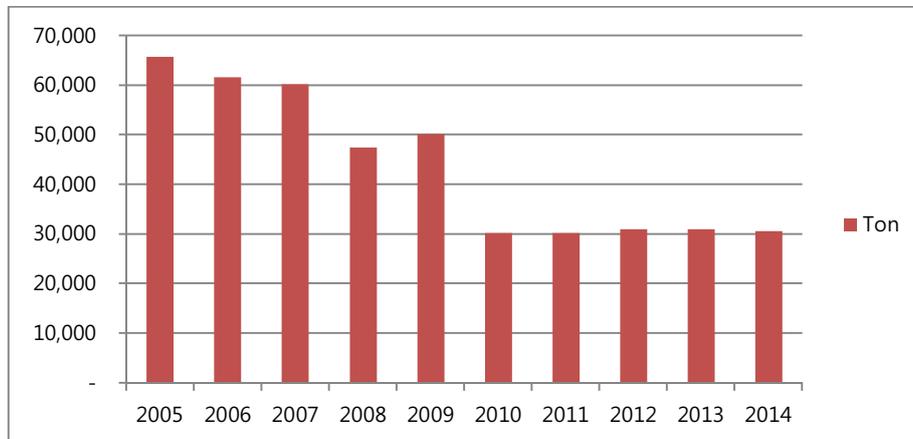


Figure 7 China's Export Quota for Rare Earths Elements

As demonstrated so far, China was somewhat more careful about internationally sensitive economic measures such as import and export restriction, rather China took tougher action when it comes to measures that are not easy to be noticed by the global such as business contract terminations and regulations. Economic figures such as trade value and FDI are insignificant to argue that China intended to use other such economic measures to make Japan step backward from the row over Diaoyu/Senkaku Islands. However, business pressure in 2010 was more significant measure which China took. China had withdrawn from several joint ventures even under legal contracts with Japan. Toyota Motor Corporate was compelled to locate its production base in Chinese plant which expected to cause technology transfer because of the reason thought to be China's export ban of rare earths materials. In addition, China's export quota policy on rare earths elements triggered Japan's anxiety about price increase.

In conclusion, China's use of rare earths export ban as a leverage in a way to pressure Japanese business in China and price increase both by export quota policy and export ban were significant factors that led Japan's decision to release Chinese captain in Diaoyu/Senkaku dispute in 2010.

4-2. Impacts of the Export Ban to Japan

4-2-1. Industrial Harm of Japan

As soon as China restricted rare earths export, Japan's industries that use rare earths elements including electronic gadgets such as computer and mobile phones and national defense equipment were directly hit by the sudden increase of the material price. As China restricted export quota remarkably since July 2009, Ministry of Commerce of China has decided export quota of the second half of 2010 at 8,000 tons which down for 70% than a year earlier. Total export amount in 2010 from China to Japan was only 30,258 tons which decreased for 40% compare to last year.³⁷

³⁷ See Figure 8. Kim Kyu Pan. 2012. p.134-136

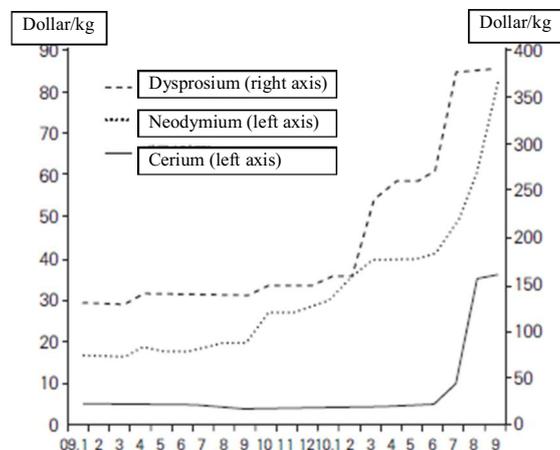


Figure 8. Japan's Import Price of Rare Earths

Japan consumed 20% of world's total consumption in 2009. Among them, 90% of Japan's consumption came from China's supply. At that time Japan didn't have various suppliers and totally depended on import from China. In such situations, Japan's anxiety grew so quickly when it detected China's use of export ban as their strategy.

4-2-2. Security Lose against China

Media and some scholars pointed out that looking at the result of the incident this time China won over the Japan. Several narratives viewed China's action as aggressiveness or pressure whereas Japan's response as weakness or defeat.³⁸ It was even described as a reflection of power shift in East Asia, 'China's rise' and 'Japan's

³⁸ Linus Hagstrom. 2012. *Power Shift in East Asia? A Critical Reappraisal of Narratives on the Diaoyu/Senkaku Islands Incident in 2010*. Chinese Journal of International Politics. Vol.5(3). p.267-297

decline'.³⁹ New York Times released a series of articles on the situation. The article 'Arrest in Disputed Seas Riles China and Japan' by Martin Fackler and Ian Johnson depicted the situation as "a test of wills between Japan, the region's established power and now-fading economic giant, and China, a rising force that feels its time has come to take what it regards as its rightful place in Asia."⁴⁰ A paper released by Institute of Asian Research asserted that "this is more than an oddly outdated conflict over Westphalian sovereignty in a period of intense globalization. It is about the shifting balance of power and the absence of bilateral and regional institutions to manage the shift."⁴¹

In Japan, politicians and the press made their assessment on that issue. According to Linus who collected dominant narrative both from Japan and China and recited terms that had been used by Japan's evaluation, Liberal Democratic Party faction leader Nukaga Fukuhiro's harshly portrayed as a 'unprincipled' [ri'nen o motte inai], 'lacking awareness' [ninshiki busoku], 'lacking knowledge' [chishiki busoku], 'superficial' [hisōteki], 'naive' [chisetsu] and 'very incomprehensible' [hijō ni wakarinikui and fukakai]. Others called the Kan Cabinet's response 'extremely poor' [hijō ni mazukatta], and 'all too sloppy' [darashinasuguru]—a response which 'completely neglected Japan's sovereignty' [kanzen ni Nippon no shuken o naigashiro],

³⁹ Linus Hagstrom. 2012. p.267-297

⁴⁰ Martin Fackler and Ian Johnson. Arrest in Disputed Seas Riles China and Japan. (2010, September 19). *The New York Times*. Retrieved from <http://www.nytimes.com/2010/09/20/world/asia/20chinajapan.html>

⁴¹ Yves Tiberghien. Disputed Islands Crisis between Japan and China: Power Shift and Institutional Failure. (2010, September 28). *Asia Pacific Memo*. Retrieved from <http://www.asiapacificmemo.ca/japan-china-islands-crisis-institutional-failure>

and which is thus described as the ‘fiasco of post-war Japanese diplomacy’ [sengo Nippon gaikō no daishittai].⁴² Similar sentiments were also aired in the Japanese press, and not just in the right-wing tabloids, although they were allegedly ‘the most vociferous in [their] denunciations of the government’s handling of the affair’. The tabloid Fuji, for instance, on October 1 described the decision to release Zhan as ‘kowtow diplomacy’ [dogeza gaikō], and Tokyo Governor Ishihara Shintarō remarked in Shūkan Bunshun on October 7 that ‘[w]hat China’s doing is no different from gangsters. If Japan does nothing, it will suffer the same fate as Tibet’. Writer Sakurai Yoshiko, moreover, warned in the Shūkan Post on October 8 that ‘If Japan gives in on the Senkakus, China will come to grab Okinawa next’.⁴³

4-2-3. A Turning of Japan's Heavy Dependence on Chinese Rare Earths

Since 2010 Japan's heavy dependence on China's rare earths export critically decreased. Above table shows that it was quite obvious China's share in Japan's rare earths import was tremendous over the past years. However, Japan began to buy more rare earths from other countries since 2010 and Malaysia in 2014. Import amount of rare earths from Malaysia skyrocketed to 1,218 tons, compared to a year earlier. With an increase of 51.82% from a year ago, Japan totally imported 22,307 tons of rare earths in 2014, remaining the world's top buyer. Since 2010 incident surrounding

⁴² Linus Hagstrom. 2012. p.267-297

⁴³ Linus Hagstrom. 2012. p.267-297

Diaoyu/Senkaku Islands, the Japanese government has made great efforts to cut dependence on Chinese rare earths. As a result, China's 2014 rare earths share fell 2.19 point from a year ago, to 59.64% of Japanese total imports amounts. In 2014, France was the second largest supplier and Vietnam as their largest supplier which exported 2,758 tons of rare earths to Japan. Japan also diversified rare earths supply chain by importing from Estonia and Kazakhstan.⁴⁴

Table 4. Rare Earths Import of Japan from Divers Countries

COUNTRY	QUANTITY(ton)						
	2008	2009	2010	2011	2012	2013	2014
China	31,097	15,613	23,311	15,378	8,013	9,084	13,303
Vietnam	0	334	605	1,282	1,451	2,122	2,758
Kazakhstan	528	108	449	798	61	190	445
France	1,712	1,373	2,758	2,604	1,784	1,828	3,352
Malaysia					0	9	1,218
USA	63	220	454	1,107	242	14	14
Estonia				377	999	343	880
Others	930	614	987	944	1,279	1,103	337
Total	34,330	18,262	28,564	22,490	13,829	14,693	22,307
China's Share	90.58%	85.49%	81.61%	68.37%	57.94%	61.83%	59.64%

⁴⁴ See Table 4. Kim Kyung-jin. 2014. China-Japan Dispute over Sovereignty, Economic Sanctions, and Japan's Response: A Case of Rare Earths Embargo in 2010. Korea University. p56. [In Korean]

Besides diversified suppliers, the Japanese government and companies also looked for breakthroughs by acquiring import license from other countries outside of China, investing in mines in overseas or by participating mining of rare earths through joint-ventures.⁴⁵

Table 5. Investment of Japanese Companies to Foreign Rare Earths Productions

Company	Country	Corporate	Year	Plan
Sojitz	Australia	Lynas	Nov 2010	Acquisition of exclusive rare earths import license
Sumitomo	U.S.A.	Molycorp, Inc	Dec 2010	Investment to facility construction to reactivate a mine
Hitachi-Metal	U.S.A.	Molycop, Inc	Dec 2010	Consultation to establish a joint venture
Sumitomo	Kazakhstan	Kazatomprom	Mar 2011	Agreement of joint venture
Toyota, Sojitz	Vietnam	-	Oct 2011	Agreement of joint venture
Toyota	India	Indian Rare Earths Ltd	Nov 2012	Contract of production and refining business

4-2-4. Strengthen Security Alliances between Japan and the U.S.

The Japanese government has set out to rebalance the relationships between Japan and the U.S. by emphasizing importance of independent diplomacy of Japan.⁴⁶

⁴⁵ See Table 5. Kim Kyung-jin. 2014.

⁴⁶ Aurelia Mulgan. 2014. *US-Japan alliance the big winner from the Senkaku Islands dispute*. East Asia Forum. Retrieved from <http://www.eastasiaforum.org/2010/10/26/us-japan-alliance-the-big-winner-from-the-senkaku-Is>

However the Diaoyu/Senkaku Islands dispute in 2010 changed Japan-US alliance. On one hand, the U.S. had assured that the Senkaku Islands are within the scope of the Japan-US Security Treaty, which obligates the U.S. to defend Japan. By doing so, the U.S. expressed strong support for Japan and emphasized its responsibilities as an alliance. In addition since the incident Japanese Foreign Minister Maehara Seiji who is well known to be pro-US sympathy reviewed the 1997 Japan-US Defense Cooperation Guidelines, which enable Japan to provide logistical and rear-area support for the United States in the event of regional conflict. This move also was regard to strengthen the security alliance.⁴⁷ Therefore, "the alliance is more highly valued in the region, particularly by other countries embroiled in their own maritime territorial disputes with China. The dispute also offers the Obama administration a chance to rebuild the bilateral security relationship by recruiting Japan into a strategic coalition against China. Meanwhile, the Kan administration has been handed a powerful argument in favor of maintaining a strong marine presence in Okinawa. Across a spectrum of bilateral issues including Islands defense, the Senkaku 'shock' has turned out to be a 'Senkaku tailwind'."⁴⁸

lands-dispute/

⁴⁷ Aurelia Mulgan. 2014.

⁴⁸ Aurelia Mulgan. 2014. *US-Japan alliance the big winner from the Senkaku Islands dispute*. East Asia Forum. Retrieved from <http://www.eastasiaforum.org/2010/10/26/us-japan-alliance-the-big-winner-from-the-senkaku-Islands-dispute/>

4-3. Impacts of the Export Ban to China

Even though we have demonstrated short term victory for China and lose for Japan, it is still questionable the impacts of the incident in long terms.

4-3-1. Negative Impact on China's Rare Earths supply

As Japan has made much effort to lessen dependence on China, not only Japan tries to strengthen economic relationship with other countries, but business and academia also try to develop alternatives. Accordingly, Japan now reduces reliance on Chinese rare earths. Since Japan was the biggest importer in the world and Japan's demand from China declined, the market price of rare earths was lower.⁴⁹

Table 6. Price of Rare Earths Elements, 2004-2011

Rare Earths	2004	2005	2006	2007	2008	2009	2010	2011
Lanthanum	2	1.85	2.15	4.63	8.17	7	16.8	133.1
Cerium	1.43	1.45	1.67	3.67	4.55	4.6	12	130.6
Praseodymium	7.69	9.58	19.54	29.95	17.62	14.5	42.5	215.5
Neodymium	5.85	9.79	20.6	30.28	17.18	14.5	42.5	230
Europium	300	245.33	240	338	490	420	570	1180
Terbium	320.67	326	512	596	498	340	545	1200
Dysprosium	34.67	50.33	77	89.33	110	85	288	700

*Unit: kg/dollar

⁴⁹ See Table 6. Kim Dong Hwan and Byung Seok Oh. 2010. *The Emergence and Its Current State of Chinese Resource Nationalism: Focusing on the Rare Earth Elements*. Korean and World Politics. Vol.26(2). p.157

As Table 6 shows, between 2010 and 2011 the price of rare earths skyrocketed. However in 2012 the price decreased for 30% compared a year ago. The market price of Neodymium in June 2012 was only at 150 dollars per kilogram which down for 70%; Dysprosium at 1,100 dollars which down for 15%.⁵⁰

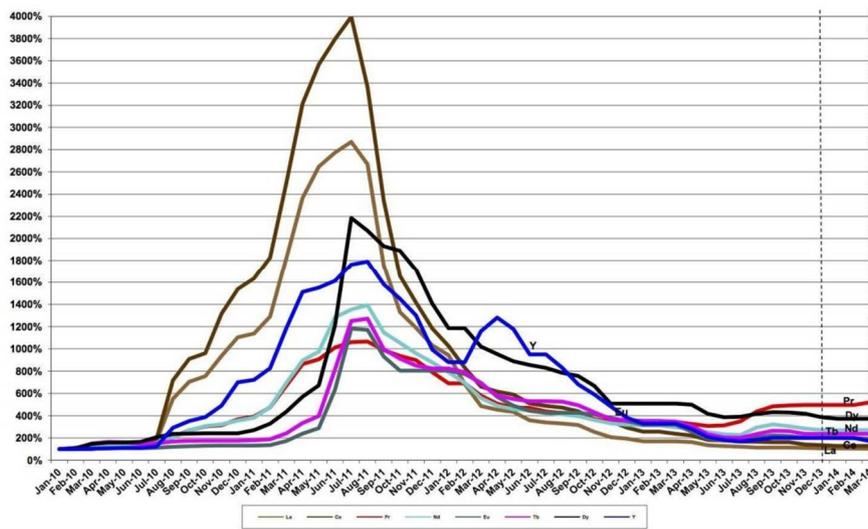


Figure 9. Decline of Supply Price of Chinese Rare Earths Elements

Decrease of rare earths mineral price directly hurt Chinese rare earths industries. In particular since the beginning of 2012 supply and demand decreased dramatically, Chinese rare earths production factories and companies had to stop and close the operation. One of the biggest rare earths production company in China, Baotou Steel

⁵⁰ See Figure 9. Myles Udland. Rare Earth Metals were supposed to be the ‘can’t-lose’ investment of the decade—look how that turned out. (2014 September 16). *Business Insider*. Retrieved from <http://www.businessinsider.com/molycorp-decline-in-2014-2014-9>

Rare-Earth Group (内蒙古包钢稀土(集团)高科技股份有限公司), was not an exception. Its net profit of third quota in 2012 decreased for 90% compared a year earlier, and had to shutdown operation of several production plants to manage market price and break through earning decline.⁵¹ Consequently, China's export ban of rare earths against Japan led a series of results that Japan diversified its supply to lessen dependence on China, so that Japan's demand decreased and China's profit earned by rare earths export decreased.

4-3-2. Removal of the Application of Export Quotas to Rare Earths

Over the past few years, China has applied a number of policies to control the production and export of rare earths materials although it was denied by the government saying those measures intend to better manage and conserve limited resources concerning environmental issues.⁵² Bilateral business issue during the dispute over the Islands remained between China and Japan. However, the export quotas, duties, and other trade measures applied to rare earths were more sensitive globally knowing the fact that these trade restrictions are inconsistent with the world trade rules and China's real intention over the raw materials. Under this situation, Japan was not the only one shocked by China's embargo of the rare earths material. Other importers of the Chinese rare earths such as the second and third biggest

⁵¹ Kim Kyung-jin. 2014. *China-Japan Dispute over Sovereignty, Economic Sanctions, and Japan's Response: A Case of Rare Earths Embargo in 2010*. Korea University. p56. [In Korean]

⁵² Wayne M. Morrison and Rachel Tang. 2012. *China's Rare Earth Industry and Export Regime: Economic and Trade Implications for the United States*. Congressional Research Service.

importers, the U.S. and EU, also started to really concern about the China's position and Japan's 'weakness'. Following the incident China kept its export quota and restriction measures on the rare earths and that finally the U.S, Japan, and the EU jointly initiated a World Trade Organization (WTO) dispute settlement case against China's restriction policies on rare earths trade in July 2012.⁵³ Measure at issue was export restrictions -export duties, export quotas, and certain limitations on the enterprises permitted to export the products- on a number of rare earths, tungsten, and molybdenum. In particular regarding quantitative restrictions, the Panel found inconsistency with GATT Article XX(g), the general exceptions -exhaustible natural resources, which highlights China's export quotas were not justified under the exception relating to the conservation of exhaustible natural resources.⁵⁴ China did not appeal and stated to implement the Dispute Settlement Body's recommendations if a reasonable time is allowed.⁵⁵ On May 20, 2015, China informed the removal of applications of export quotas and duties accordingly.

4-3-3. Triggering Anti- Sentiment and Further Conflicts

Since Diaoyu/Senkaku boat collision incident in 2010, disputes and armed conflicts are more likely due to both countries response very aggressively against each

⁵³ Wayne M. Morrison and Rachel Tang. 2012. *China's Rare Earth Industry and Export Regime: Economic and Trade Implications for the United States*. Congressional Research Service.

⁵⁴ WTO. China-Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum. Retrieved from

https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds431_e.htm

⁵⁵ WTO.

other. Among them China's anti-Japanese demonstration in 2012 became very intensive anti-Japanese movement broke out in China. The protesters in more than 50 cities including Beijing, Shanghai, Qingdao, and Guangzhou in China came out to the streets and circled in front of the Japanese Embassy demanding Chinese control over the Diaoyu/Senkaku Islands.⁵⁶ The demonstrates was occurred with some violence that a factory of the Panasonic Corporation was set on fire and a Toyota dealership was looted.⁵⁷ The protests expanded to boycotts for Japanese goods and services. Many Japanese retailers and restaurants had to close for a while, or had to show their supports for China by placing signs on their windows.⁵⁸ A series of incidents since the territorial dispute in 2010 had intensified anti-sentiments toward each other and violent actions were followed. As shown in the Figure 11, Chinese public opinion saw that the relationship of the two countries is “bad” and that began to be negative especially since 2010 which directly reflected the anti-Japanese sentiment of Chinese people.⁵⁹

⁵⁶ Ian Johnson and Thom Shanker. Beijing Mixes Messages Over Anti-Japan Protests. (2012. Semtember 16). *The New York Times*. Retrieved from <http://www.nytimes.com/2012/09/17/world/asia/anti-japanese-protests-over-disputed-islands-continue-in-china.html>

⁵⁷ Ian Johnson and Thom Shanker. 2012.

⁵⁸ Ian Johnson and Thom Shanker. 2012.

⁵⁹ Current State of Japan-China Relations. Retrieved from <http://www.genron-npo.net/en/pp/archives/5153.html>

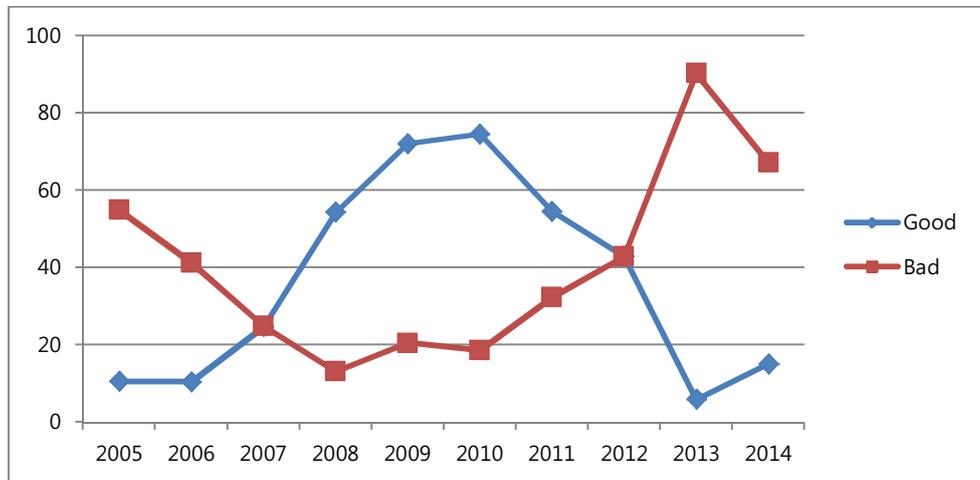


Figure 10. Chinese Public Opinion toward Japan

Moreover, the security competition became intensified after the incident in 2010. Several conflicts had been occurred over sovereignty on the Islands. The Japanese government purchased the Islands from private owners which intended to strengthen Japan’s control over the territory and China, in response, dispatched surveillance ships to near the Islands.⁶⁰

⁶⁰ Ian Johnson and Thom Shanker. 2012.

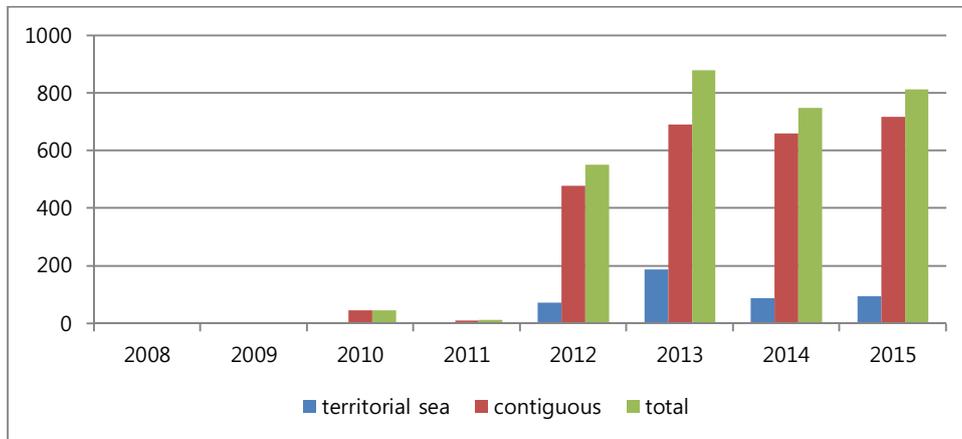


Figure 11⁶¹ The Number of Chinese Vessels Entering the Territorial Waters near Diaoyu/Senkaku Islands

Right after the incident and China being able to impose strategic action again Japan, the embargo of rare earths material, it seems to be fair to say China's victory was acknowledged by the domestic as well as the global media. On the other hand, Japan's government was harshly criticized of that it was a sign of "weakness and lack of responsibility on their part to infer that prosecutors could have the authority to make a decision of such crucial impact on Japanese diplomacy."⁶² In Japan's industry, the import price increase of rare earths elements directly affected Japanese industry especially regarding that rare earths minerals are the essential for Japan's leading industries such as high technology and automotive industry. Although the price

⁶¹ Ministry of Foreign Affairs of Japan, 2017. *Trends in Chinese Government and Other Vessels in the Water Surrounding the Senkaku Islands, and Japan's Response*. Retrieved from http://www.mofa.go.jp/region/page23e_000021.html

⁶² Linus Hagstrom. 2012. *Power Shift in East Asia? A Critical Reappraisal of Narratives on the Diaoyu/Senkaku Islands Incident in 2010*. Chinese Journal of International Politics. Vol.5(3). p.267-297

increase was mainly due to China's export restriction by the application of quota system, a halt from September 23 to November 19 in the Chinese export of rare earth metals to Japan created a moreover anxiety about larger price jumps under the situations. In this sense, a fear from import price increase caused by the embargo and export quota seemed to be a driving force of Japan during the incident.

Looking at more comprehensive consequences that ranging from immediate evaluation of the incident to the following of Japan's diversification of rare earths import source, China's winning over Japan ironically bared negative impacts toward China's use of rare earths strategy. The demand from Japan has been decreased and the reputation in the international has been also damaged for violating WTO rules especially concerning China is also a member of the organization. As a result, the relationship between China and Japan was even more frozen in several ways. The two countries' economic exchanges were dramatically decreased. Disputes regarding security and territory between the two countries were more likely and the anti-sentiment toward each other became stronger. There have been no significant efforts to resolve the issue. China and Japan's territorial issue over Diaoyu/Senkaku Islands is still going on. In this sense, rare earths incident triggered by the two countries' territorial dispute actually negatively affected not only Japan but also China even if the case was depicted as the China's victory and Japan's weak diplomacy. In conclusion, hypothesis is unacceptable.

V. Conclusion

5-1. Revaluation of China's Export Ban in 2010

During the incident over Diaoyu/Senkaku Islands in 2010, China executed the embargo on rare earth elements against Japan even if it was officially denied by the Chinese government. In this paper, the impact of rare earths export ban as a key driving force for Japan to release the Chinese captain was evaluated by comparing other economic relations between the two countries; trade regulation, FDI, and business risks. As demonstrated, import amount and FDI between the two countries shows insignificant changes during the same period. More significant factors were that China's export quota management and business regulations. Since China applied export quota system, the market price of rare earths has been increased and even when China imposed export ban, the price grew much higher. In this situation, Japan, as the major consumer of China's rare earths, was afraid of further price increase that will damage its leading industries such as automotive and high technology industry. Moreover, Japanese companies operated in China felt pressure during the dispute in 2010 along with the export ban. China's business pressure resulted in more favorable contract with Toyota who was afraid of technology transfer to China. In addition, several joint ventures between Japan and China was expired or terminated with unreasonable reason for Japan.

It seems that China was more concerned about internationally sensitive issues

such as import and export restriction, rather China took tougher actions when it comes to issues that are not easy to be recognized besides the two countries such as business regulations. This paper, for these reasons, concluded that Japan who was the number one importer of China's rare earth elements and who was expanding its business in China felt pressure from China's export ban with export quota and business regulation, so that the Japanese government had to release the Chinese captain.

In conclusion, China's use of rare earths export ban as a leverage in a way to pressure Japanese business in China and price increase both by export quota policy and export ban were significant factors that led Japan's decision to release Chinese captain in Diaoyu/Senkaku dispute in 2010.

In this regard, this paper shed lights on the impact of the export ban and the incident to both of China and Japan because the case was generally depicted as China's victory as a growing power in the region and Japan's weak diplomacy over the one of the key national interest for both countries. Right after the export ban, it seems to be fair to say China's victory was acknowledged by the domestic as well as the global media. On the other hand, Japan's government was harshly criticized of that it was a sign of "weakness and lack of responsibility on their part to infer that prosecutors could have the authority to make a decision of such crucial impact on Japanese diplomacy." Moreover, the increase of import price of rare earth elements directly affected Japanese industry especially regarding that rare earths minerals are the essential components for Japan's leading industries. Although the price increase is mainly due to China's export restriction by imposing quota system, the embargo also put more pressure on concerns

about supplying the raw materials to Japan's industry. In this sense, China's export ban negatively affected Japan.

In addition to the impacts of the embargo against Japan, the following consequences of the China's embargo needs to be evaluated more comprehensively. It is noteworthy that China's winning over Japan ironically bared negative impacts toward China's use of rare earths strategy. Due to Japan's effort to diversify the supply sources by importing from some other countries and participating in developing productions and technology that can substitute Chinese rare earths elements. Since the demand for Chinese rare earths, the market price of the material was decreased. As a result, some rare earths production companies had hard time in keeping operation and that the companies had to stop operating or close. Moreover, the application of export quota on the rare earths was complained by not only Japan but also the U.S. and EU, and the case was concluded that China's actions were inconsistent with WTO rules. Following the conclusion of WTO, China had to remove the application of export quota, and this harmed reputation of China as a member of WTO.

Since the territorial dispute and economic measure by China in 2010, the economic exchanges including FDI, import and export were decreased along with the increasing of security dispute as well as anti-sentiment toward each other. The public considered the bilateral relationship was bad rather than good since 2010 and the anti-sentiment became stronger. In addition, territorial disputes over the Diaoyu/Senkaku Islands were more frequent, for example China dispatched ships to the Islands. Disputes over the Islands caused further concerns for many other countries

regarding that China still has the South China Sea conflicts. Since the dispute in 2010 between Japan and China, Japan and the U.S. reconfirmed the strong alliance which includes securing Senkaku Islands for Japan as a core national interest.

In this sense, China's export ban of rare earths to Japan immediately brought negative impact for Japan, but more comprehensive analysis shows China was also negatively affected for its rare earths supply and security tensions.

Although China is now faced with the low economic growth, it has played a critical role in international relations and economy. As China's economy grew bigger, the relationship with partner countries became interdependent. In particular, geographically close countries, Japan and Korea, have much interdependent economic relationships with China. In this situation, Japan was unable to take effective action when it comes to security issue and China's assertive action. Learning from the case of 2010, countries with active economic exchanges have to bear in mind ways to take effective action in dealing with not only security issues but also other part of economic issues because a fear for losing benefits from economic exchanges could be bigger as some theories explain.

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국 문 초 록

외교마찰 시, 경제 제재의 영향에 관한 연구: 중국의 대일(對日) 희토류 금수조치를 중심으로

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2010년 9월 일본은 다오위다오/셴카쿠열도 근처에서 중국인 선장을 체포하였다. 이에 중국은 선장 석방을 요구하였으나 일본은 자국 내 법적 조치를 이유로 석방을 거부함에 따라 중국은 희토류 금수조치를 단행하였다. 희토류는 일본 첨단기술과 자동차 산업에 필수적인 물질로 중국에서 대부분의 희토류를 수입하고 있었던바, 중국의 대일 희토류 금수조치는 일본이 중국인 선장을 석방한 주요인으로 작용하였다. 본 논문의 목적은 과연 당시 중국의 금수조치가 일본의 선장 석방 결정을 이끌어낸 결정적인 요인이었는가를 밝히는 것이다. 따라서, 당시 희토류 금수조치와 더불어 중국의 희토류 수출쿼터제로 인한 수입가격 인상과 중국 내 일본기업에 대한 규제가 일본의 선장 석방에 대한 결정을 압박한 주요인으로 보았다. 또한, 희토류 금수조치와 선장 석방이 중국의 외교 '승리'와 일본의 '패배'로 묘사되었으나, 본 논문은 사건의 결과에 따른 영향을 중국과 일본 모두의 입장에서 고찰할 필요가 있다고 여겼다. 따라서, 일본의 입장에서 산업 타격, 외교적 '패배' 등 부정적인 영향이 있었으나 이로 인해 희토류 공급원을 다양화하고 생산 및 개발 연구에 투자하는 등 희토류 공급 안정화를 위해 노력하였다. 또한 미국과의 동맹을 재확인하여 안보를 공고히 하였다. 중국은 외교적 '승리'로 비추어졌으나 일본의 수입다변화 등의 요인으로 희토류 수출가격이 하락하였으며 수출규제로 일본, 미국, 유럽연합은 WTO에 제소하여 중국은 WTO판결에 따라 수출쿼터제를 폐지하였다. 또한, 2010년을 기점으로 반일, 반중 정서가 격화되어 중국 내 반일 운동이 확산되었고, 양국 간 다오위다오/셴카쿠열도를 둘러싼 갈등 또한 심화되었다.

결론적으로 본 논문은 수출쿼터제와 금수조치로 인한 희토류 가격 상승과

중국 내 일본 기업 규제가 일본의 선장 석방 결정을 이끌어낸 결정적 요인이었으며, 중국의 '승리'로 비추어진 본 사건은 일본뿐만 아니라 중국에게 또한 부정적인 영향을 미친 것으로 본다.

핵심어: 중일관계, 희토류 금수조치, 닌오위다오/셴카쿠열도
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