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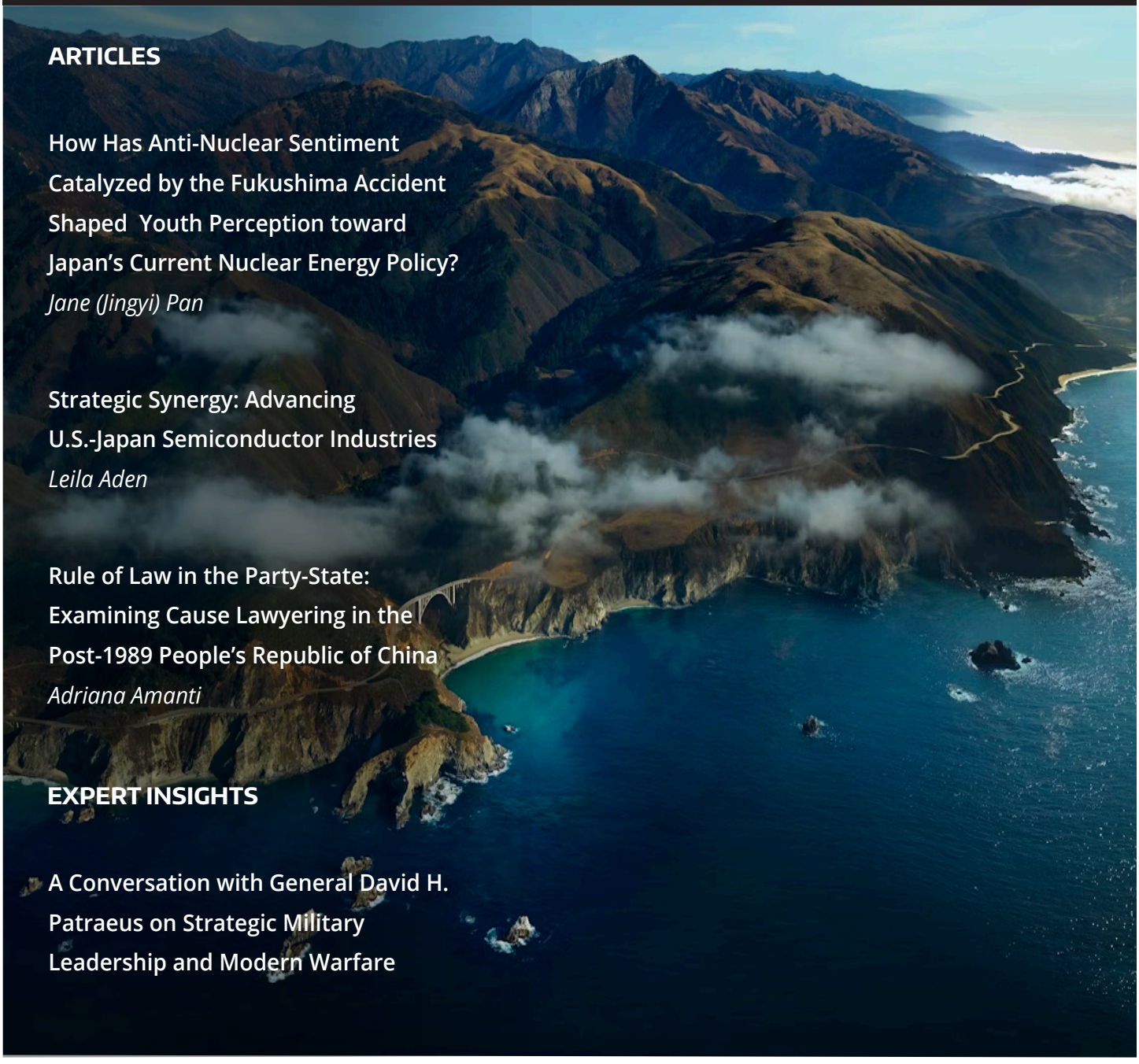

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UNIVERSITY of WASHINGTON

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From the Editors

Aftershocks and Undercurrents

Dear Readers,

Thank you for reading the Summer 2025 issue of the Jackson School Journal of International Studies. We are honored to present the outstanding research and writing of our fellow undergraduate scholars.

Our latest issue is characterized by a theme of "Aftershocks and Undercurrents," as it zeroes in on pivotal and formative political, environmental, and diplomatic events that continue to reverberate within their respective policy domains today. Jane Pan's research illuminates Japan's nuclear energy policy discourse by examining the long-term effects of the Fukushima Accident, exploring youth perceptions in particular and how they manifest in Japan's civic sphere. Leila Aden's analysis of collaborative economic statecraft between the United States and Japan traces bilateral fault lines and the recalibration of diplomatic and economic strategy in response to China's rapid, disruptive rise in the semiconductor sector, and as a dominant power in the Indo-Pacific as a whole. Adriana Amanti scrutinizes the role of legal activism in China in the aftermath of the Tiananmen Square demonstrations, shedding light on how the "rule of law" and legal institutions may take root in an authoritarian system. This edition is concluded by our interview with General David H. Petraeus, who reflects on the evolving terrain of military strategy in the digital age as technology swiftly revolutionizes modern warfare.

Whether dissecting a cataclysmic moment in the course of global history or upheavals in military and political dynamics, investigating the residual effects or latent forces that impact public perception, strategy, and decision-making beneath the surface is integral to understanding our contemporary geopolitical landscape.

We hope this edition provides this insight and are grateful for your ongoing support of the Jackson School Journal of International Studies.

Taylor Arredondo, Chloe Mau, Tin Pak, Teerth Mehta, Fern Hinrix, and Upajna Palepu
The 2024-2025 Editorial Board

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How Has Anti-Nuclear Sentiment Catalyzed by the Fukushima Accident Shaped Youth Perception towards Japan's Current Nuclear Energy Policy?

Jane (Jingyi) Pan

ABSTRACT

Since August 23rd, 2023, when the Fukushima Daiichi nuclear power plants discharged nuclear wastewater into the Pacific Ocean, anti-nuclear sentiment has re-emerged across East Asia. This study builds on Akihiro Ogawa's anti-nuclear citizen framework to assess its relevance in the current context. Using a survey method, this study evaluates the relationship between anti-nuclear citizenship (independent variable) and anti-nuclear policy perception (dependent variable) among youths with international experience. Findings reveal that while both anti-nuclear citizenship and anti-nuclear policy perception exist among the selected focus group of youth, they remain a minority. Moreover, no strong correlation is found between one's anti-nuclear citizenship and anti-nuclear policy perception, suggesting that being an anti-nuclear citizen does not guarantee an anti-nuclear policy perception, vice versa. The proposed mediator, a sense of precarity appears weak across participants, challenging the framework's applicability post-wastewater release. Despite this, the survey data provide optimism for future studies to refine suitable indicators within the framework, enhancing our understanding of the relationship between anti-nuclear identity and attitudes towards nuclear policies in Japan.

Rapid global energy transition and technological revolution towards climate goals has brought energy security into the policy scope of international governance. For Japan, energy security and alternative energy sources have long been discussed, especially after the Fukushima Daiichi accident (Hong et al., 2013; GLOBIS Insights, 2023). On March 11th, 2011, the nuclear tragedy was caused both by human design flaws and an unpredictable natural disaster. The earthquake Thoku and its byproduct – a 15-meter tsunami – hit the Fukushima Daiichi reactor units, resulting flooding and power outages that led to the melted reactors' cores (World Nuclear Association, 2023). Consequently, the system breakdown led to three hydrogen explosions and the release of radioactive waste to the surroundings. The disastrous environmental destruction level was rated as the same as the Chernobyl disaster in 1986 (World Nuclear Association, 2023). Accordingly, the Japanese government shut down all its nuclear reactors in Fukushima, implemented safety reassessments, and "stress tests" to stabilize the post-disaster society (International Atomic Energy Agency, 2016).

Despite post-disaster response, Japan continuously depends on nuclear-generated electricity. Therefore, the reduction of nuclear power generation combined with the failure to reintroduce adequate electricity generation resulted in skyrocketing electricity prices, creating public discontent (McLellan et al, 2013). While measures like refurbishing old thermal plant, purchasing new electricity plants, and increasing fossil fuel imports have been conducted by the government, these passive and ineffective responses invited more criticism of energy policies and public distrust (McLellan et al., 2013). Thereafter, the growing public distrust in the government's ability to address the energy issue has led to polarized debates about nuclear power generation, creating distinct "pro" and "anti" nuclear power supporting groups (Suzuki, 2020). In other words, the accident is both a point for policy debate and a starting point for public opinion upheavals, especially grassroots activism of anti-nuclear sentiment.

This paper navigates through the grassroots activism post Fukushima and seeks to understand the progression of public perception towards Japan's nuclear energy policy throughout the years. In answering: How has anti-nuclear sentiment catalyzed by the Fukushima accident shaped youth perception towards Japan's current nuclear energy policy? the result offers a contemporary perspective to the current field of study. The discussion of the power of collective actions sheds a light on Japan's ongoing political dynamics around the controversial topic of nuclear energy and puts forward a structured analysis of the degree to which public perception shapes energy policy.

Literature Review

Scholarship on Energy Policy Trends in the Wake of Fukushima

Scholarship has revealed the extent of the Fukushima accident's impact on the population's psychological and physical well-being, as well as on domestic industry trends. For example, studies on the evacuated population have shown an increased rate of diabetes and hyperlipidemia caused by chronic stress (Nomura et al., 2016). The severity of public weariness toward radiation and related health issues resulted in unprecedented discrimination at local, regional, and even national levels. Tourism was negatively impacted due to the loss of customer trust in environmental safety, and local businesses were diminished because of the price reduction resulting from "contaminated customer product" rumors (Oughton, 2016). Young people refused to move back to their homes after the expiration date of the evacuation since society discriminated against those who were exposed to radiation (Oughton, 2016). Accordingly, the Fukushima accident extended its impact to Japanese society, leading to growing anti-nuclear sentiment.

Energy Policy is Resistant to Change

Energy policy in Japan has exhibited strong resistance to change due to entrenched institutional structures and historical monopolistic practices. Scholars attribute this rigidity to the legacy of vertically monopolized firms, which date back to the Meiji Period and persists through the "nuclear village" framework—an alliance of politicians, bureaucrats, and industry leaders forming an "iron triangle"[1] that protects vested interests and inhibits policy reform (Kucharski & Unesaki, 2018). Consequentially, institutional rigidities often subvert public opposition and appear to be intransigent. Additionally, institutional practices such as Amakudari, where senior bureaucrats transition to influential roles in regulatory bodies and private companies, further entrench resistance by blurring the boundaries between policymakers and industry stakeholders (Vivoda & Graetz, 2015). The return of the pro-nuclear Liberal Democratic Party (LDP) in 2012 was suggested as an indication of the "nuclear village" capturing the winning party. LDP's alignment with nuclear villages stifled independent regulatory oversight, which sustained Japan's nuclear policy trajectory despite growing anti-nuclear sentiment (Fam et al., 2014). To elaborate, Japan's sole regulatory body of the nuclear industry – the Nuclear and Industrial Safety Agency (NISA) – was pro-nuclear because it was operating under METI, which has a deep vested interest in both nuclear villages and the LDP (Fam et al., 2014). Consequently, Japan's structural design of the nuclear industry has shown strong pushback for policy change.

Reality of Nuclear Energy's Long-Term Salience in Japan's Energy Mix

Post-Fukushima, Japanese society became deeply divided over nuclear energy. More than 60% of the public, those who were traumatized by the falsified myth of "nuclear safety", were in favor of "zero-nuclear" or gradual "phase out" of nuclear power plants (Japan Atomic Energy Relations Organization, 2022). However, scholars argue that despite the growing anti-nuclear consensus, nuclear power will remain a key stable baseload power source to Japan's energy security given the country's dependence on energy imports (Vivoda, 2012). Although there are efforts to compensate for reduced nuclear reliance – such as refurbishing thermal plants and increasing fossil fuel imports – the soaring electricity costs and blackouts further expose Japan's energy vulnerability (McLellan et al., 2013). An absence of nuclear power would threaten Japan's long-term energy security.

Studies in the following years consistently affirm nuclear power's critical role in Japan's energy mix, arguing that a "zero-nuclear" scenario is nearly impossible due to its energy density, cost-effectiveness, and structural constraints in Japan's energy transition. Nuclear power is highly energy efficient, and therefore compared to other expensive renewable sources, it is the cheapest electricity source in Japan (EIA, 2020). While coal and LNG offer a competitive price, the acute recognition of low-carbon technologies from the public has created a hard tradeoff for Japan (EIA, 2020). Since reducing nuclear operations, Japan's carbon emissions have risen (EIA, 2020). Notwithstanding that renewables play a key role in the energy transition, nuclear power once again becomes an essential tool for meeting its 2030 goal of a 46% emissions reduction from 2013 levels (UNFCCC, 2021). Thus, despite societal opposition, nuclear power remains entrenched in Japan's energy policy as a necessary component of economic and environmental strategy.

Evidence of the Evolution of Japan's Energy Institutions

While structural constraints and external commitments have historically made nuclear power resistant to change, evidence suggests incremental systemic shifts in Japan's energy policy. Studies suggest in the post-Fukushima period, the 2014 electricity market liberation shifted the originally supply-side oriented energy system to a more demand-side leading structure (Uyanik, 2022). With the introduction of a new independent energy institution – the Nuclear Regulation Agency (NRA), which replaced the METI-operated NISA – pro-nuclear ideologies started to fade. The NRA weakened pro-nuclear dominance, granting local govern-

ment and citizens greater influence over policy making. Additionally, the entry of independent energy suppliers and renewable producers diversified Japan's electricity market, reflecting a more dynamic system that pivoted away from nuclear energy (Kucharski & Unesaki, 2018). These structural changes indicate a gradual move toward a more responsive energy policy that highlights voices from private industry and grassroots movements. This allows public opinion and social movement to have more control over energy demand and policy formation, breaking the traditional policy-making process.

Growing Local Activism and National Energy Policies

In contrast to Japan's resistance to energy policy change, growing local activism reflects the public's strong will towards a nuclear-free society. Post Fukushima, nuclear energy's decreasing popularity signifies the expansion of anti-nuclear activism (Suzuki, 2020). Evidence suggest that the public appears to be gravitating more towards aggressive approaches like an immediate shutdown of all nuclear reactors and phase-out policies. Thus, anti-nuclear sentiment became permissible, leading to heated debates about nuclear policies involving grassroots participants who act progressively based on their anti-nuclear beliefs (Suzuki, 2020). The emergence and continual anti-nuclear agenda show the expansion of civil society in nuclear policies decision makings.

Expansion of Civil Society Through Various Sociopolitical Channels

Scholars have noted various actions activists took that were effective at shaping energy policies and nuclear reactor reopening plans, including legal, electoral, and social actions. These efforts encourage more participation bearing anti-nuclear sentiment, implying cohered concerns and focused collective actions (Suzuki, 2020; Uyanik, 2022; Aldrich, 2012; Liscutin, 2011; White, 2015). Studies also discuss the growing influence of lawsuits and the court's veto power on delaying the restart of nuclear power plants (Suzuki, 2020). In 2017 and 2018, anti-nuclear activists and residents raised several legal cases against the reopening of nuclear reactors.

In addition to legal actions, scholars also observed intentional electoral behaviors reflecting growing social activism. Many residents gave favorable votes to anti-nuclear local officials to disadvantage the pro-nuclear officials (Uyanik, 2022). Bearing in mind local officials' veto powers in evaluating the "safety" of power plant restart or other project proposals relating to nuclear, activism's influence via electoral processes exhibits legitimate power over energy-related policies. In a 2013 poll, more than half of the mayors in Japan showed opposition toward nuclear plant restart. Thus, as indicated by the voting behavior, the continual development of anti-nuclear movement gives activists influence concerning nuclear policies.

Moreover, large-scale demonstrations of anti-nuclear activism were a channel that was accessible and visible to the general population. Scholars point out that the new level engagement and scale of social protests became influential factors in nuclear policy decision-making. For example, the 2011 Sayonara Nuclear Power rally in Tokyo drew over 40,000 protesters, challenging the government's long-standing "nuclear safety" narrative and demanding a nuclear-free future, ultimately pressuring officials to replace NISA with the NRA (Aldrich, 2012). Widespread public engagement, especially among urban workers and youth, amplified by social media and large-scale movements like Anti-Nuclear Action Week, further underscored the growing influence of grassroots activism in shaping Japan's nuclear policy (Liscutin, 2011; White, 2015). Notably, the 2012 weekly protests held outside of Prime Minister Noda's residence led to unprecedented face-to-face meetings with Naoto Kan, who later became a "nuclear phase-out" supporter after he resigned from the Prime Minister position (White, 2015). This indicates large-scale protests were influential factors that determined the evolving energy policy. In all forms, activism united diverse demographics in a shared commitment to a nuclear-free society, exerting significant influence on Japan's energy policy decisions.

Youth as a Growing Domestic Actor

Japanese society is traditionally and culturally less expressive, and large-scale demonstration have often carried a stigma of irrationality (O'Day, 2015). Yet post-Fukushima, the revitalization of anti-nuclear protests of youth signaling a generational shift toward political engagement. One study examines this shift through the Student Against Secret Protection Law (SASPL), a youth group previously considered apolitical, began engaging in activism (Heinrich et al., 2021). Many SASPL members initially joined anti-nuclear protests in 2012. Over time, their activism extended beyond nuclear policy, as SASPL evolved into the Student Energy Action for Liberal Democracy (SEALD), broadening its focus to criticize the Abe government (Heinrich et al., 2021). This transformation highlights a larger trend of growing youth involvement in political activism as collective action became more accepted (Tamura, 2018). Particularly after the 2012 anti-nuclear movements led to discussions with then-Prime Minster Naoto Kan, demonstration as tangible collective action have inspired other social movements to mobilize more youth to participate in politics (Tamura, 2018). In other words, the Fukushima accident served as a

a catalyst for sustained youth engagement in politics, transforming the dynamics between social responses and policy changes.

Akihiro Ogawa's Anti-Nuclear Citizen

Akihiro Ogawa's recent study on energy policy and grassroots activism provides a concrete analysis of the complex relationship between the two. He introduced the idea of "anti-nuclear citizens" to examine how individuals function as a collective force within social movements against nuclear power. The framework is rooted in the idea that active citizenship emerges from social movements, specifically the change-oriented nature, whereby activists transformed themselves into "citizens" to push the change to claim a just outcome (Isin, 2009). Considering the growing impact of civil society and its ability to spotlight issues based on experience, "citizenship" thus becomes a position of power. In the context of post-Fukushima activism, anti-nuclear citizens' consciousness helped to "frame issues, define problems and influence agendas" via anti-nuclear activist movements (Sheingate, 2003). Therefore, the "citizenship" framework not only defines the key actors but also bridges anti-nuclear activist with individual experiences, illustrating the evolving dynamics of post-Fukushima anti-nuclear movements.

The Precarious Status of Anti-Nuclear Citizens has Shaped Anti-Nuclear Sentiment and Activism

Since the early 2000s, the neoliberal politics of the Japanese Liberal Democratic Party (LDP) have resulted in drastic labor market liberalization and led to a growing sense of precariousness among people (Ogawa, 2023). Subsequently, the exaggerated market competition made more people rotate from underpaid jobs or short-term/part-time jobs without employment security. The constant change with minimal return forms a threat to one's employment, contributing to a precarious status. At a larger scale, the sense of employment insecurity reflected a collective negative reaction towards market liberation. This change has created a new structure in Japanese society, in which the "precariat",[2] or "makegumi" (an emerging socioeconomic class which means losers in English in opposition to "kachiguni", the winners), is highly relevant. According to MHLW 2011, 38.7% of the Japanese labor force which includes most young people, had become part of the "precariat" group where flexible or irregular jobs were the new normal (MHLM, 2011).

The post-Fukushima societal shift exposed the precariat to the unpredictable risks of nuclear power, paralleling market liberalization. Specifically, the precariat felt both their jobs and lives were sacrificed in the precarious times (Ogawa, 2023). Bearing in mind the structure of "nuclear villages", its inherent "murahachiu" or village exclusion of outsiders, exploited people's rights to stability. The epistemic community ostracized those who criticized their pro-nuclear approach, including many regular employees or precariat (Kingston 2012). Accordingly, the systematic denial of job security based on attitude towards nuclear power fueled the changing mindset of the precariat, recognizing nuclear is just another layer of their precarious status that needs to be changed (Ogawa, 2023). In other words, the precariat incorporated many shared experiences including job insecurity and post-Fukushima suffering into the mindset of "anti-nuclear citizens", allowing the precarious status to be an essential part of the anti-nuclear sentiment/activism.

Precariat Inspire the Forward-Moving Anti-Nuclear Protest

With the evolving mentality of the precariat who view precariousness as central to the co-occurring anti-nuclear sentiments, Ogawa argues that the centrality of shared precariousness has inspired anti-nuclear social movement to move forward and beyond (Ogawa, 2023). As grassroots activists discovered a shared suffering in anti-nuclear protests, their goal expanded from abolishing nuclear power plant to broader social justices. The precariat' shared job insecurity extended to neoliberal ideologies that connect anti-nuclear sentiment with other struggles people face in life. This trend mobilized people from different demographics, including the younger generation, leading to growing social activism based on structural discrimination.

Based on Ogawa's observation, the structural discrimination embedded in the highly criticized nuclear village system brought to the fore by protests is the root cause of the precarious mindset. At the preliminary stage of the anti-nuclear protests post-Fukushima, ordinary people, especially those who live in urban areas, were not mobilized because the nuclear power plant was not their problem. Since the locations of nuclear power plants were not randomly selected by Japanese policymakers but based on the density of social capital, the invisibility of the power plants left people indifferent to the rising anti-nuclear sentiments (Aldrich, 2008). However, discussion of the marginal location of nuclear power plants has brought more attention to structural discrimination. Rural residents were exploited to offer convenient energy production to fulfill the urban electricity need, while at the same time, urban workers also experienced a low quality of life due to the market liberation. This dualistic structure exposed the shared precariousness and led to a surge of anger which inspired people with similar sufferings to participate in anti-nuclear activities.

Furthermore, anti-nuclear dynamism is also a product of grassroots vs. politics disagreement, which mobilized a new group of young people to become politically active and move anti-nuclear demonstrations forward (Ogawa, 2023). Based on scholars' observations, the "rally beginners", or young adults, became active participants in the anti-nuclear demonstrations when more diverse arguments for anti-nuclear activities were made. Youth participating in anti-nuclear protests also utilized social media to create a new popular culture to mobilize the younger generation. One month after the Fukushima disaster, anti-nuclear demonstrations organized by Ryota Sono, a member of the precariat, spontaneously gathered thousands of young people via social networks like Ustream, Twitter (now, "X"), and other live broadcast platforms. The new media allowed youth to discover what was being ignored by state-run news organizations, such as NHK (Ogawa, 2023). Thus, the norm of youth participation became widely accepted, even popular. In other words, the precariat inspired young people to be politically active in the light of Fukushima, forming a new network of activism to carry on their goal of changing policies for a better society.

Another piece of evidence provided by Ogawa is that in Suginami, anti-nuclear activism organized by Hajime Matusmoto, a secondhand store owner and former precariat, pushed young people to the forefront of anti-nuclear social movement (Ogawa, 2023). Matsumoto organized a "Shirōto no ran" (Amateur's Riot) with other secondhand shops and bars to express their anger and grievances caused by the accidents on March 11th and larger precariousness in life. The emotion-based rally created a comfortable space for young people to voice their suffering. A high level of participation led to a culture of street parties where people wore all kinds of clothes, and costumes, sang, danced, shouted, ate, and drank with DJs and rock/hip-hop musicians to demonstrate their indignation (Ogawa, 2023). Thereafter, anti-nuclear demonstrations like "Shirōto no ran" centered the angry young precariat and championed them as key players in policy changes. This organized student activism unblocked the barrier between the precariat and the new generation, thus shaping youth as the vanguard of policy changes or the conscious "anti-nuclear citizen".

Hypothesis

Youth's participation in post-Fukushima anti-nuclear social movements has marked a new phase in Japanese society's willingness to protest that will protest. Activists mobilize people not only through shared worries about the Fukushima accident but also via collective precarious experiences. In examining the question "How has anti-nuclear sentiment catalyzed by the Fukushima accident shaped youth perception towards Japan's current nuclear energy policy?" and based on Ogawa's concept of an emerging Japanese mindset among conscientious citizens that links anti-nuclear sentiment to a broader interest in pushing government policy toward fair practices, the precariousness experienced in the wake of Fukushima is hypothesized to shape perceptions of nuclear energy policy among college-age youth navigating the post-Fukushima reality (Ogawa, 2023). In particular, surveying Japanese students' anti-nuclear citizen status and their perceptions of current nuclear energy policy is expected to reveal that their attitudes are rooted in a vision of a sustainable, nuclear-free society.

Methodology

Quantitative Analysis

This research uses a digital survey to supplement focus group findings in the field.[3] Survey is the most appropriate method to conceptualize the correlation between perceptions and policies because the implementation thereof helps to generate patterns of attitudes and observes changes over time. For example, recent studies polling post-Fukushima responses have discovered a plateaued anti-nuclear sentiment from 2014 to 2021 (Japan Atomic Energy Relations Organization a, 2022). Survey items include but are not limited to negative impressions of nuclear power generation, such as "danger", "anxiety", "fear" and "distrust", attitudes towards the re-opening of nuclear reactors, etc. (Japan Atomic Energy Relations Organization a, 2022; Kitada, 2013; Miyawaki & Sasaoka, 2017). The itemized reactions, mirroring Ogawa's "anti-nuclear citizenship" indicators, help link negative emotions to specific anti-nuclear views. The survey's structured design gathers empirical data to reveal youth perceptions of nuclear incidents and policies.

Specifically, the survey delves into such conceptual work's applicability in today's youth group who share international experience. Thereafter, the result only reflects a particular group of Japanese youth, which would not be representative of the entire Japanese youth population due to snowball sampling and its inherent identity bias. Despite the limitation of this focus group data, seeing the growing discussion of the 2023 August Fukushima nuclear discharge offers insights of whether the current youth group uphold similar anti-nuclear ideologies would offer critical records of the public perception towards nuclear energy policy in the post-Fukushima Japanese society. Similarities or differences would imply what is lacking or contributing to the youth's status as an anti-nuclear citizen.

To provide prospects of the survey and offer a structural lens, it is important to emphasize the purpose of this paper is to examine the relevancy of anti-nuclear citizens among youth and whether the status thereof influences their policy perception. While the larger argument suggests the rise of anti-nuclear citizens as a byproduct of the anti-nuclear social activism spotlighting the shared precarious experiences, this paper has a narrower focus ten years after the social movement and offers supplementary data to the existing literature on anti-nuclear citizenship. Thus, the hypothesis lies in, testing the applicability of the anti-nuclear citizen framework in accordance with the younger generation. Specifically, examining the following hypothesizes:

a) Anti-nuclear citizens remain relevant 13 years after the Fukushima Daiichi accident;
b) The level of precariousness heavily contributes to youth's anti-nuclear citizenship;
c) Anti-nuclear policy perception remains relevant in the surveyed focus group;
d) The level of precariousness heavily contributes the youth's anti-nuclear policy perception;
e) Youth's anti-nuclear citizen status and their perceptions of the current nuclear energy policy reveal evidence that their attitude towards the energy policy is grounded in a vision of a sustainable life in a nuclear-free society.

Survey

In testing the hypothesis via the anti-nuclear citizenship framework, there are two different variables to measure. They are the independent variable (IV), anti-nuclear citizenship, and the dependent variable (DV), anti-nuclear policy perception. The independent variable has three indicators to reflect on the survey subject's status vis-a-vis Ogawa's conceptual structure of anti-nuclear citizenship. The dependent variable, policy perception, has seven different indicators/statements to evaluate one's degree of alignment of anti-nuclear policy perceptions. Other variables, including demographic questions and general environmental knowledge/energy awareness questions to indicate potential biases and rule out outliers.

There are in total of 36 questions within the survey. Survey question types include a claim and a multiple-choice question, a 1-5-rating scale, an open-ended question, or a yes and no question. Multiple choice questions are utilized to assess survey respondents' demographic features, such as age, citizenship, major, current physical location, and employment status. 1-5 rating scale questions guide respondents through two critical assessments, including anti-nuclear citizen assessment and nuclear policy perception assessment. In recognition of survey respondents' possible different interpretations of the wording, the rating will be broken down into three main categories: 3= neutral; 1,2 = negative reaction to the statement; 4,5 = positive reaction to the statement. Each of the ratings will be granted with different meanings based on the question which provide guidance towards the examination of the anti-nuclear citizen status and youth's policy perception. For example, a score of 4 on the statement "I trust government's decision regarding nuclear energy policies" would suggest the individual's agreement with government's pro-nuclear leaning decisions. Thus, not anti-nuclear. The phrasing of the questions have first-person pronouns or a third-person narrative, such as "I believe nuclear power generation is efficient", "We should live in a nuclear-free society", or "Nuclear power generation is dangerous" to assess youth's identity or perception. Although the utilization of strong claims may prime subjects with a certain mentality when approaching the next questions, scholars have discovered its effectiveness in generating interesting results that avoid neutral answers (for example, a 3 on a 1-5 rating scale) (Wang & Okabe, 2020; Wang, et al., 2020). Therefore, questions within the anti-nuclear citizenship assessment and policy perception assessment have claims that are clearly pro-nuclear or anti-nuclear to ensure a high validity of survey responses. Question statements are also available in both Japanese and English. All statements are randomly ordered, which prevents priming or suggesting how respondents should react, feel, or answer to a particular rating of answer options.

FIGURE 1. Summary Statistics of Survey Questions Used for Variables

Variable(s)	Demographics			Independent variable (IV) -- Antinuclear citizen assessment			Dependent variable (DV) -- Antinuclear policy perception assessment	Correlation between IV & DV		Total number of questions
Indicator(s)	*NA*			Level of consciousness	Level of precariousness	Level of political involvement	*NA*	*NA*		
Type of questions	Yes/No	Open-ended questions	Multiple choice	1-5 scale rating	1-5 scale rating	1-5 scale rating	1-5 scale rating	Yes/No	open-ended questions	*NA*
Number of questions	2	2	4	4	4	4	7	6	3	
Total number of questions	8			12			7	9		36

In addition to the primary 1-5 rating scale questions, yes or no questions are also included in the survey, offering more direct responses in terms of quest correlations between the two variable assessments. Regarding open-ended questions, all survey responses are translated into English and analyzed by token. Keywords are selected based on the frequency being mentioned per survey response. Questions like "Please provide three adjectives that best describe your feelings about the nuclear wastewater discharge", and "Why/why not do you consider yourself anti-nuclear" are asked to seek detailed insight into survey subjects' rationale behind their previous responses. A collection of repetitive keywords reveals sentiments and rationale behind the focus group of youth towards Japan's current nuclear policy or related recent events.

Measurement

Through the discussed questions, both the anti-nuclear citizenship variable (IV) and the anti-nuclear policy perception variable (DV) are assessed via the digital survey using the 1-5 rating scale. The IV is evaluated by three indicators: level of consciousness, level of precariousness, and political involvement according to Ogawa's framework. Consciousness can be defined as active awareness of the environment and the relationship of the self within. Precariousness indicates the level of instability especially economically and uncertainty in one's life. Political involvement reflects the degree to which one may be politically active and is willing to act for political purposes.

In the survey, statements like "Environmental impact is the most important feature when considering using an energy source" and "Paying gas/utility bills is constantly on my mind" are measured by a 1-5 rating scale, indicating a unique score for each survey participant. The quantified scores from each individual's anti-nuclear citizenship indicator will be combined into one single numeric number by calculating the average. This single score reflects the degree to which the person is conscious, precarious, or politically active. An average score of three indicate one's neutrality on the indicator assessment. If an individual's average score from the consciousness topic, for example, is greater than three, that indicates the person's level of consciousness is higher than total neutrality. Thereafter, the individual fulfills the criteria of consciousness. On the other hand, if one's average score is lower than three, that reflects a low level of consciousness of the individual showing unsatisfactory with the consciousness criteria vis-a-vis the anti-nuclear citizenship framework. With average scores above three from all the indicator groups, including consciousness, precariousness, and political involvement, the individual will be qualified as an anti-nuclear citizen. If an individual only or two average scores above three, then that person will not be considered as anti-nuclear citizen.

The second variable (DV), anti-nuclear policy perception is measured by seven statements of Japan's current nuclear policy from METI, NRA, and news media, including but not limited to the recent nuclear wastewater release and nuclear reactor re-opening. Each statement is quantified by a 1-5 rating scale which demonstrates the youth's attitude towards particular nuclear energy policies. Aligning with the scoring logic from the first IV assessment, an average score of three would reflect neutrality of one's policy perception, namely, they are neither anti-nuclear nor pro-nuclear. An average score above three would reveal one's perception in agreement with anti-nuclear policies, and vice versa.

In addition to the two main variables measured to support the hypothesis testing the existence of the IV and the DV, eight supplementary yes or no questions and open-ended questions are included to draw correlations between the IV and the DV. Questions like "I think my life right now is precarious", "I believe the 2011 Fukushima accident is somewhat connected with my sense of precariousness", and "I consider myself anti-nuclear" are included. With the supplementary questions, a comparison between indicators' average scores from the IV assessment, and the DV assessment provides a more concrete evaluation of survey participants' anti-nuclear citizen status's impact on their overall policy perception. Confounding variables like demographic variables and preexisting knowledge/interest in nuclear energy are also considered throughout the data proceeding to rule out variables that may skew the result to extremely pro-nuclear or anti-nuclear (Wang & Okabe, 2020).

All variables are analyzed by primary statistical methods. The two main assessments are first analyzed individually to present: 1) the existence of anti-nuclear citizens; and 2) the existence of anti-nuclear policy perceptions. Then the filtered data, or the anti-nuclear citizen results and their policy perception, are paired up and compared with the counterparts, non-anti-nuclear citizen/non-anti-nuclear policy perception results. Taking into account the supplementary question results, correlation between the IV and the DV is discussed. Specifically, anecdotal responses from the supplementary sections are used as examples to highlight some insights of the tested hypothesis.

Procedure

Participants were recruited through the researcher's network within the University of Washington (UW), using the Jackson School of International Studies major email lists,

to the Japanese Student Association (a registered UW student organization) to distribute the survey. Other types of recruitment included distributing printed flyers with QR codes of the digital survey to classes within the Center for Japanese Studies at the UW. All responses to the digital survey were anonymous; however, emails were recorded for survey promotion purposes. Specifically, anyone who successfully shared the survey was given a $15 gift card. The digital survey was available for three weeks for data collection and was promoted three times under the assistance of the Jackson School email lists.

Unit of Analysis

The primary research subjects of this study are youths ages 18 years old to 30 years old who are Japanese and share Japanese heritage in the greater Seattle area or in Japan. The selection of the subjects is based on the researcher's accessible network or interested survey participants and relies on snowball sampling. Thus, current students or friends of Japanese exchange students at the University of Washington (UW) are disproportionately reflected in the survey. The specific age group was inspired by the Japan Atomic Energy Relations Organization polling data where youth groups are separated between the 18-early thirties (Japan Atomic Energy Relations Organization, 2023). Because of the variety of survey subjects and to offer more accurate focus group data, the participants are roughly categorized into three groups. This includes Japanese citizens in the U.S. (JUS), Japanese citizens in Japan (JJ), and non-Japanese citizens who share Japanese heritage in the U.S.(NJUS). The grouping tests the hypothesis and reveals confounding variables, like youth international experience affecting anti-nuclear status and policy perception. The survey respondents exemplify a special group of youth who have common knowledge about the Fukushima nuclear wastewater release incident while also having international experience. Thus, in recognition of the inherent bias where survey subjects may have different levels of knowledge about the 2011 Fukushima nuclear accidents and the anti-nuclear social movement, the critical measurement of anti-nuclear citizenship and policy perception are discussed with respect to youth's international experience.

Results

There are in total of 55 survey responses, with four outliers whose ages are over 30 or do not live in the US or Japan. Among the 51 valid survey responses, there are eight Japanese citizens in the U.S.(JUS), 31 Japanese citizens in Japan (JJ), and 12 non-Japanese with Japanese heritage in the U.S.(NJUS). The average age of the entire respondent group is 21.94 years old, whereas the JJ group has a slightly higher age average value of 22.32 compared to the other two respondent groups. Overall, 26 survey participants have part-time employment, 16 are unemployed, six have full-time jobs, two are contract or temporary, and one is unable to work. Participants are also from various majors or study backgrounds. The most common major participants share are international relations, regional studies, and economics/businesses. There are two from computer science and two from the medicine department, and seven other respondents major in environmental sciences, such as agriculture, marine studies, and environmental design.

Anti-nuclear Citizenship Assessment

Anti-nuclear Citizens

Among 51 valid survey respondents, six of them are anti-nuclear: four from the NJUS group, one from the JUS group, and one from the JJ group. This result supports hypothesis a) that anti-nuclear citizens remain relevant after a decade of the Fukushima Daiichi accident.

FIGURE 2. Summary Statistics of Survey Participants by Groups

		Non-Japanese citizen in US	Japanese citizen in US	Japanese citizen in Japan	Outlier	Total	Average (Does not include outlier)
Number of participant (s)		12	8	31	4 (*eliminated one participant age 30, 2 japanese citizen live in countries other than US and Japan, and 1 non-japanese in Japan)	55, (51 without outliers)	NA
Average age		21.333	21.4	22.323	NA	NA	21.68533333
Employment status	Full time	0	0	6	NA	6	2
	Unemployed	4	5	7	NA	16	5.333333333
	Part-time	6	3	17	NA	26	8.666666667
	Contract or temporary	1	0	1	NA	2	0.6666666667
	Unable to work	1	0	0	NA	1	0.3333333333
Strong connection with Japan when staying in the US	Yes	5	8	NA	NA	13	NA
	No	7	0	NA	NA	7	NA

However, based on the large percentage of respondents that do not qualify as anti-nuclear citizens (88.2%), anti-nuclear citizen's application may not be universal to the extent of the younger generation. Reasonably, this focus group data presents a particular group of youths who were children (around 10 years old) when the Fukushima Daichi accident happened. Thus, despite survey respondents experiencing the nuclear wastewater discharge firsthand in 2023, they were unlikely to participate in the anti-nuclear social movement or be directly influenced by previous precariat or anti-nuclear citizens as suggested by Ogawa's writing.

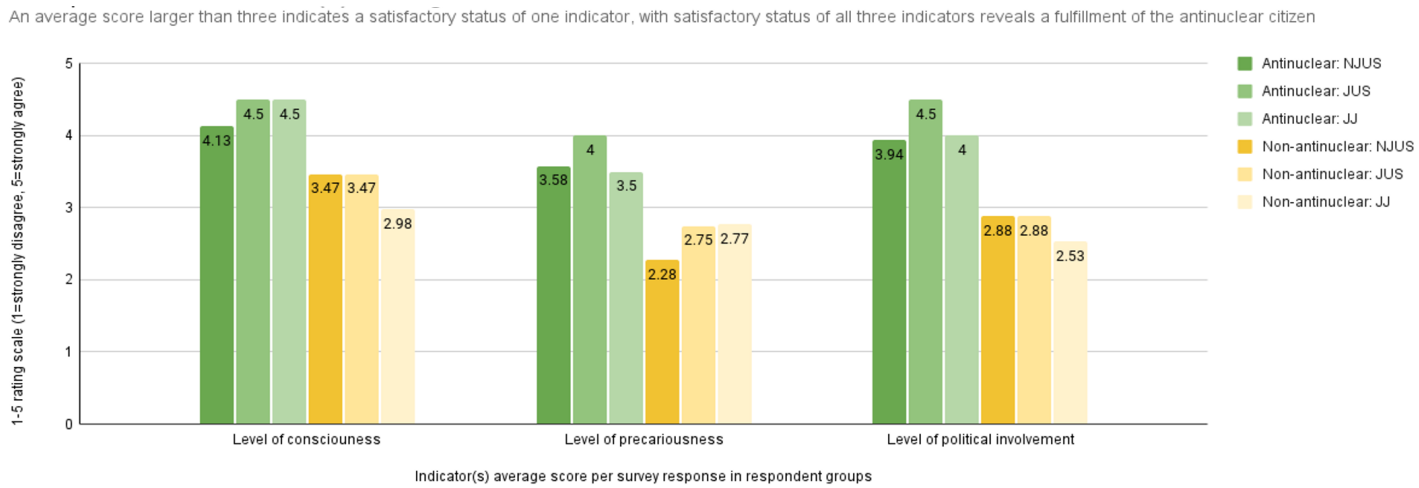
Across the board, all anti-nuclear citizen has a relevantly high level of consciousness (specifically, NJUS scored an average of 4.13, JUS 3.69, and JJ 4.5). This suggests their overall acknowledgment of the environmental/climate issues surrounding them, especially in terms of the relevancy of nuclear energy. However, it is interesting to observe that the highest precariousness levels are exhibited by the JUS group (4), compared to lower levels in the other two groups (NJUS an average of 3.69 and JJ 3.5). This suggests a possible correlation between Japanese diasporic status in the US as less stable. Additionally, the political involvement level is generally higher for both the JUS group (4.5) and the JJ group (4) compared to the NJUS group (3.94), likely because Japanese citizens are more invested in Japan's politics than their counterparts.

Traits of the Entire Surveyed Population by Indicator(s)

Despite the six respondents who are qualified as anti-nuclear citizens and discuss anti-nuclear citizen status inclusively, all three groups show a high level of consciousness, scoring an average of over three (NJUS scored an average of 3.69, JUS 3.16, and JJ 3.03). This may be rationalized as a result of media emphasis on environmental and climate issues, governmental policies suggesting environmental issues, as well as a survey respondent's educational background (i.e., student majoring in social sciences or environmental studies may know more about these topics). Particularly, 44/51 respondents believe climate change is real, and it is impacting everyone's life, which supports the high level of environmental consciousness. In addition, 23/51 respondents suggest that they are interested in nuclear energy, and 12/51 follow energy-related news, indicating a high level of engagement of the youth group with nuclear energy and environmental policy.

Precariousness levels on the other hand are generally lower, contrary to Ogawa's observation of previous anti-nuclear citizens. This marks the most distinguishable feature that differentiates between the current youth and past youth who may be part of the anti-nuclear social movement, or anti-nuclear citizens. Therefore, the survey results partially support hypothesis b) where the level of precariousness heavily influences youths' status as anti-nuclear citizens. However, the focus group data is not sufficient in supporting the reversal correlation where precarity contributes to one's anti-nuclear citizenship. Specifically, the NJUS group has an average score of 2.75, the JUS group has 2.91, and the JJ group has 2.79. The overall low score of the level of precariousness is justified by the focus group's ability to study abroad, demonstrating this group's economic well-being.[4] Additionally, these youth draw less correlation between their economic needs or sense of precarity and environmental issues, especially to a nuclear accident that happened 13 years ago. 9/51 respondents believe that paying gas/utility bills is constantly on their minds, and 6/51 see the connection between job insecurity and the Fukushima Daiichi accident. Thus, precariousness is not very relevant to the focus group which implies the characteristic differences that mark people as non-anti-nuclear citizens.

FIGURE 3. Comparison of Indicator(s) Average Score between Anti-Nuclear Citizens and Non-Nuclear Citizens



Regarding the last indicator political involvement, the result shows a less consistent result. Both the NJUS (3.14) and the JUS group (3.09) have a higher political involvement, respectively, whereas the JJ group is 2.57. 31/51 respondents believe that voting matters regarding Japan's current energy policies, and 23/51 think protests and demonstrations push society to better and move forward. It is reasonable to conclude an active political mindset is a shared characteristic of the focus group. However, only 11/51 state explicitly they are politically active, and only 10/51 indicate they have participated in policy-oriented social movements before. Therefore, political action-taking is generally low across all groups. Additionally, the JJ group exhibits a lower average rating, declaring a largely inactive status of Japanese youth in Japan compared to in the U.S. Such a phenomenon aligns with previous literature on the separation between Japanese politics and daily life. As Japanese society is universally less politically vocal, this result offers further evidence of the low to moderate political engagement of the youth group, implying the relevancy of the underlying Japanese social norm or strong Japanese connection. In other words, the more people relate to Japan as a social member, the less likely they will be engaged with politics.

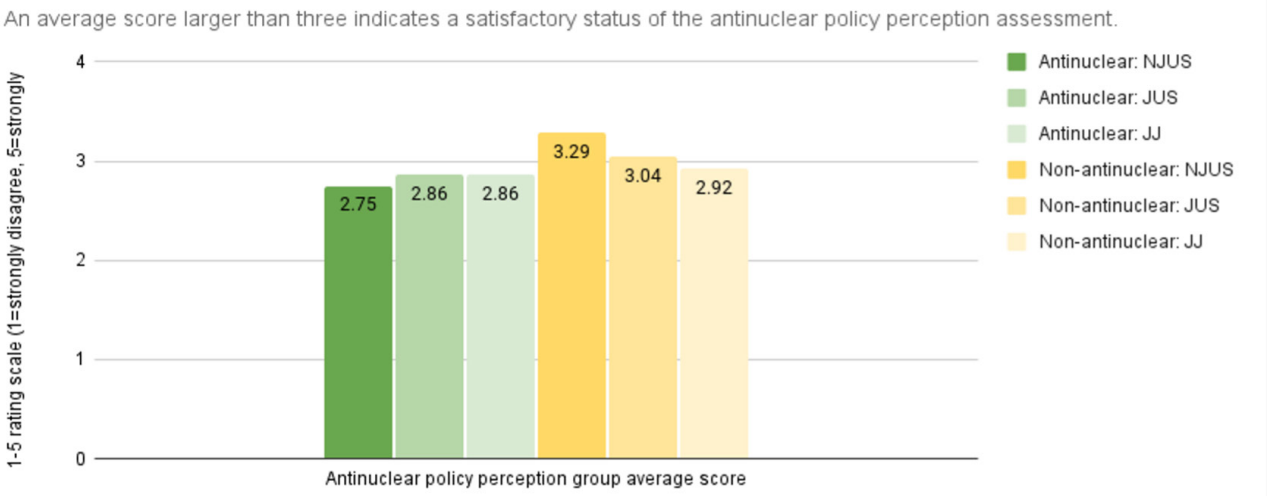
Briefly, the overall anti-nuclear citizenship assessment denotes the existence of anti-nuclear citizens within the youth focus group supporting hypothesis a), however, the relevancy would not apply to most youth based on its percentage. Additionally, precariousness is a significant determinant of one's anti-nuclear citizenship, supporting hypothesis b). However, the result evokes a specific positive correlation between the level of precariousness and one's anti-nuclear citizenship – lack of precariousness contributes to one's dissatisfaction with one's anti-nuclear citizenship status.

Overall, the survey data does not provide evidence to support a positive correlation between the level of precariousness and the presence of the anti-nuclear citizenship.

Anti-nuclear Policy Perception Assessment

In contrast with the anti-nuclear citizenship assessment, the policy perception (DV), shows rather diverse and conflicting perspectives across the three groups. Both the NJUS and the JUS group have a slightly anti-nuclear-leaning policy perception with an average score of 3.10 and 3.01, respectively. JJ has the lowest score of 2.91. This result partially supports hypothesis c) where anti-nuclear policy perception exists among the current youth group. Although not universally across all three groups, the survey responses offer evidence to the relevancy of anti-nuclear policy perception. Generally, all groups tend to have neutral responses towards the statements, with 3 as the most common answer. There are only a couple statements that evoke stronger feelings. 18/51 respondents believe we should live in a nuclear-free and sustainable society, suggesting a group of youth do not want nuclear energy to be part of the sustainable society vision. There are 18/51 have an optimistic perspective on Japan's new construction plans for new nuclear reactors, indicating a less pro-nuclear group of youth. Interestingly, there are 24/51 respondents believe the nuclear waste-water discharge plan from the Fukushima Daiichi nuclear reactors to the oceans is necessary, but only 15/51 trust the Japanese government's decision regarding nuclear energy policies. The conflicting results shows fluctuating attitudes in youth. Contrary to Ogawa's observation on the overwhelming majority youth who hold strong anti-nuclear policy perceptions leading to their proactive behaviors within the anti-nuclear social movement, the focus group youth show rather less salient attitudes towards Japan's current nuclear policies.

FIGURE 4. Comparison of Policy Perception Assessment between Anti-nuclear and Non-Anti-nuclear Citizens



The mixture of both pro-nuclear and anti-nuclear results reflects an ambiguous policy perception of the selected group of youth suggesting an overall neutral, but slightly anti-nuclear policy perception. Yet, it is important to point out that what makes the JJ group less anti-nuclear is their trust in the necessity of a nuclear wastewater discharge plan – 19/24 of the respondents believe it is necessary for the Fukushima Daiichi unit to release nuclear water to the ocean are from the JJ group. Such a result to some degree reflects the larger, more positive Japanese narrative towards nuclear discharge and its influence on local youth.

Rationales Behind the Ambiguity of Anti-nuclear Policy Perceptions

Regardless of the validity of the anti-nuclear policy perception assessment, the supplementary yes/no questions offer more insights regarding survey respondents' policy perception. For example, 15/51 respondents claim they consider themselves as anti-nuclear or have an anti-nuclear policy perception. 36/51 does not consider themselves as anti-nuclear. Interestingly, participants' anti-nuclear status does not necessarily link with this response, meaning respondents who fit the anti-nuclear citizens' criteria may not consider themselves as anti-nuclear, and vice versa. This aligns with the overall ambiguity subjects revealing undecided nuclear policy perception. However, the rationale of alignment or disagreement varies. For instance, among the 15 who consider themselves anti-nuclear, the top five reasons are concerns over environmental cost; concerns over the technical difficulties of nuclear reactor and nuclear energy's storage, management, and disposal; concerns over the suitability of nuclear energy for Japan due to its geographical location and the high frequency of earthquakes; opposition to nuclear weapons and deterrence theory, and traumatic experience post-Fukushima combined with underlying distrust of government decisions regarding nuclear power. To highlight a couple of responses of the reason why they would consider themselves anti-nuclear, one respondent wrote:

> *"In terms of nuclear energy, I hope that nuclear energy can offer us an alternative and sustainable energy source to bring us away from fossil fuels. Yet, I do not know if nuclear energy is the most plausible option for Japan, considering its geographical location (i.e., the frequency of earthquakes). In terms of nuclear weapons, I am completely against it. I am even against the deterrence theory. I think that use of nuclear technology, whether it's for sustainable energy or for weapons, need[s] to be outlined clearly."*

A similar sentiment is also shared across other responses. For example:

> *"(Once a nuclear power plant accident occurred, people were forced to quarantine their homes due to the release of radioactive materials, causing great damage, so I feel it would be better to abolish nuclear power plants to prevent such damage from happening again)".*

In contrast, although 36 respondents indicate themselves as not anti-nuclear, the reasons of which are much more unified. The top five rationales mentioned in the responses are: believing in nuclear energy as a key source for Japan's climate goals; seeing no immediate energy alternatives that can support Japan's energy needs; resisting nuclear weapons but not nuclear power; and no interest or do not have strong feelings or knowledge of nuclear energy. Additionally, 12 respondents declared "I don't know much about nuclear power plants", or "I haven't thought much about it". Specifically, one survey participant responded:

> *"Nuclear power plants have the potential to threaten people's lives, as there have been cases of accidents. On the other hand, indeed, switching to energy production methods other than nuclear power will not be possible within a few years, as they still support our current lifestyle."*

Another respondent suggested:

> *"I bet nuclear energy is necessary in some way as Japanese gas bills had been [rising] after [the] Fukushima Nuclear thing happening [because] Japanese government stopped most of nuclear power plans. I know some disasters might cause the same thing as the Fukushima thing and expose people to radioactive stuff which is pretty tragic. But again, as a Japanese, I'm getting [kind of] sick of the higher cost of electricity."*

In short, the anti-nuclear policy perception of the focus group remains ambiguous. Although the result partially supports hypothesis c) where anti-nuclear policy perception exists, it is not carried out in all survey participant groups. Nonetheless, based on the open-ended responses explaining rationales why survey subjects consider themselves as anti-nuclear or not, it is safe to conclude that most youths within the focus group do not have an anti-nuclear policy perception. At the same time, this result does not suggest a majority of pro-nuclear-leaning individuals either. As suggested by the collective concerns over Japan's climate goals as well as Japan's energy security with or with-

energy, youths' unclear policy perception is revealed by rational thinking as well as personal experience around the nuclear topic.

Precariousness, Anti-nuclear Citizenship, Anti-nuclear Policy Perception, and Others

The sense of precariousness is hypothesized as the most significant factor that contributes to one's status as an anti-nuclear citizen as well as its anti-nuclear policy perception. Although based on survey data, there are solely six anti-nuclear citizens and a small fraction of survey respondents (29.4%) consider themselves anti-nuclear, it is important to note the correlation between each variable. Specifically, among the six anti-nuclear citizens, only two of their policy perception scores are over three, suggesting a weak correlation between one's anti-nuclear citizen status as well as their anti-nuclear policy perception. Additionally, only one out of the six anti-nuclear citizens declared themselves as anti-nuclear which further supports the weak correlation. In other words, amongst focus groups, anti-nuclear citizenship does not guarantee an anti-nuclear policy perception.

Regarding the sense of precariousness, three out of six anti-nuclear citizens responded "yes" to the question, "I think my life right now is precarious". Two offer a "yes" to the statement, "I believe the 2011 Fukushima accident is somewhat connected with my sense of precariousness". Three out of six have negative feelings towards the nuclear wastewater discharge and offer anti-nuclear-leaning policy perceptions, however, the discussed factors do not reveal any correlation between precariousness, anti-nuclear citizenship, or anti-nuclear policy perception. This is because no single anti-nuclear citizen has a high sense of precariousness, alongside a clear anti-nuclear policy perception, suggesting a failure of hypotheses d).

In other words, the level of precariousness does not contribute the survey participants' anti-nuclear policy perception. Specifically, survey result suggests that qualified anti-nuclear citizens are not precarious but have an anti-nuclear policy perception. Non-anti-nuclear on the other hand may have higher sense of precariousness and a clearer anti-nuclear policy perception, etc. Additionally, evidence show a weak correlation between one's anti-nuclear citizenship, a sense of precariousness, and anti-nuclear policy perception. Exhibition of either one qualification does not guarantee the presence of the other two among the focus group of youth

Among other things, 24/51 respondents have negative feelings about the August 2023 nuclear wastewater released from the Fukushima Daichi nuclear unit. Three out of the 24 who share negative feelings are anti-nuclear citizens and the other 21 are not. The most frequently mentioned adjectives are anxious (5 occurrences), scary (4 occurrences), dangerous (3 occurrences), unsure (3 occurrences), and concerned (2 occurrences). This result indicates a commonly shared negative sentiments youths hold specifically towards the wastewater discharge incident. Although such result does not provide sufficient data in supporting hypothesis e) where youth's anti-nuclear citizenship and policy perception is grounded in a nuclear-free vision of future Japanese society, half of the participants sharing pessimistic views of this incident reveals some degree of consensus. While youth may not explicitly suggest a nuclear-free society, the group shares an agreement that nuclear discharge is alarming at personal levels. Thus, they become more likely to agree with the nuclear-free vision hypothesis..

FIGURE 5a. Percentage of Anti-nuclear Citizen Responses

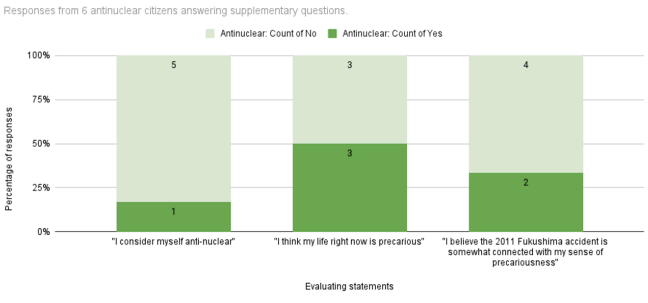
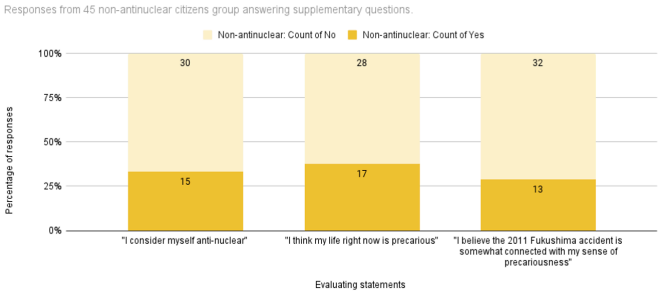


FIGURE 5b. Percentage of Non-Anti-nuclear Citizen Responses



Discussion & Conclusion

The survey results provide valuable insights into the enduring relevance of anti-nuclear sentiments, particularly in the aftermath of the Fukushima Daiichi accidents. Briefly, the independent variable anti-nuclear citizenship remains relevant within the focus group, same as the dependent variable anti-nuclear policy perception. Although the survey result suggests an extremely weak correlation between the IV and the DV (in other words, one's anti-nuclear citizenship does not predict an anti-nuclear policy perception), responses still reveal evidence to the discussed hypothesis. Firstly, the existence of anti-nuclear citizens aligns with hypothesis a). Nevertheless, the prevalence of individuals identifying as anti-nuclear citizens within the focus group remains notably low. This disparity underscores a significant shift in the lived experiences of contemporary youth compared to a decade ago. Consequently, utilizing the three main indicators may be less comprehensive in terms of evaluating a more modern youth population. While hypothesis b) finds partial support, it does so in a manner that suggests a nuanced interpretation. The perceived lack of precariousness among individuals may indicate dissatisfaction with one's anti-nuclear citizenship, rather than vice versa. Similarly, survey data partially supports hypothesis c) that anti-nuclear policy perception remain relevant within the focus group. However, anti-nuclear policy perception is not found in all participants, specifically within the JJ group. Moreover, hypotheses *d) "the level of precariousness has a strong influence on the youth's anti-nuclear policy perception", and e) "The youth's anti-nuclear citizen status and their perceptions of the current nuclear energy policy reveal evidence that their attitude towards the energy policy is grounded in a vision of a sustainable life in a nuclear-free society"* are neither supported nor reflected by the survey data. The limited validation within the survey data, is indicative of a minimal correlation between precariousness, anti-nuclear citizenship, policy perceptions, and the inconspicuous nuclear-free mindset and vision for future Japanese society.

As evidenced by the relevance of both anti-nuclear citizens and anti-nuclear policy perception among the 55 surveyed individuals, the survey data contributes to the credibility of Ogawa's framework, indicating that anti-nuclear citizens persist in post-Fukushima Japanese society. Contrary to both the hypothesis and Ogawa's observation that the sense of precariousness marks the determining factor leading to one's anti-nuclear citizen status and subsequently their anti-nuclear policy perception, current youth do not share this common trait. This result suggests the possibility of considering the applicability of the anti-nuclear citizen as a specific social product post-Fukushima, rather that can be applied in later times. As the framework was introduced immediately post-Fukushima, with the aftershock and the following anti-nuclear social movement, people at the time perceived nuclear energy very differently than the current generation. Following the devastation of the Tōhoku earthquake and subsequent aftershocks, coupled with the emergence of anti-nuclear sentiments, perceptions of nuclear energy have undergone a significant transformation among the populace. The severe impact of the earlier labor market reform, compounded by the explosions at nuclear reactors, precipitated severe economic upheaval, prompting individuals to take proactive measures to safeguard their well-being. The temporary displacement of Fukushima residents, alongside extensive media coverage of the incident, further heightened scrutiny of nuclear power, emphasizing its negative ramifications. In comparison, in current times, with the continuing economic development and post-disaster reconciliation, individuals' sense of precariousness is certainly lower. Thus, with a relatively high sense of security, individuals may exhibit less motivation to engage as anti-nuclear citizens, as observed previously.

It can be argued that both the anti-nuclear citizens identified by Ogawa (specifically youth actors, SEALDs) and those examined in this study primarily hail from wealthier social strata of their respective eras, often possessing the means to pursue education abroad, thereby having a comparably low level of precariousness. Ogawa's anthropological observations offer a more nuanced, diverse, and accurate depiction of both the precariat and the anti-nuclear citizens in comparison to the survey data utilized in this research. Additionally, this analytical framework may not entirely capture the characteristics of the contemporary population due to its narrow focus on economic stability as the main mediator of the correlation between one's anti-nuclear citizenship and their anti-nuclear policy perception. Furthermore, the reduced media attention surrounding nuclear disasters and the declining traction of the anti-nuclear social movement may also contribute to the inapplicability of such a framework. Moreover, the focus group of youth displaying fewer anti-nuclear citizenship traits may also be attributed to their limited exposure to the Fukushima accident, as they were at a young age, potentially with families who sought to shield them from the trauma associated with it.

This survey is inspired by the heated discussion of the nuclear wastewater discharge, thus hypothesizing similar findings as Ogawa's anthropological notes. Although the non-predicting correlation between the independent variable and dependent variable does not perfectly align with Ogawa's framework, the presence of anti-nuclear citizens as

ception assessments. Ogawa's ideological posits a requisite alignment between anti-nuclear citizenship and anti-nuclear policy perceptions, yet conflicting survey outcomes suggest potential design flaws. The inclusion of both anti-nuclear and pro-nuclear statements may introduce ambiguity, undermining the accuracy and representativeness of individuals' perceptions of Japan's nuclear policies. Statements illustrating strictly anti-nuclear or non-anti-nuclear claims may suggest a more unfired survey responses aligning with the framework. Additional limitations, such as the snowball sampling method and a relatively modest sample size, further underscore the need for refinement in future studies. A broader, more diverse sample encompassing varied socioeconomic backgrounds could yield a more nuanced understanding of anti-nuclear sentiments and policy perceptions. Additionally, the survey's focus on a privileged cohort of youth studying abroad may obscure the visibility of anti-nuclear citizens, suggesting broader societal factors at play, such as social desirability and the waning influence of previous anti-nuclear activists.

While this study does not establish a clear correlation between anti-nuclear citizenship, precariousness, and policy perceptions, its findings underscore the continued relevance and vibrancy of Ogawa's framework. As debates surrounding nuclear wastewater discharge persist, anti-nuclear citizens may emerge as influential advocates shaping future nuclear policies. Thus, future research endeavors should expand the application of this framework to broader populations and geographic locations, fostering a deeper understanding of its implications for nuclear policy advocacy and societal change.

Endnotes

1 Referring to the close relationship between the politicians, bureaucracies, and industries for power and control.

2 Precariat is a combination of the word "precarious" and "proletariat", refers to a social class that experience precarity materially and psychologically.

3 For full survey question set and timeline, please see appendix.

4 11/51 respondents believe their responses to the anti-nuclear citizen assessment as well as the anti-nuclear policy perception assessments are influenced by their international experience in the U.S.

References

Aldrich, Daniel P. (2012). Post-Crisis Japanese Nuclear Policy: From Top-Down Directives to Bottom-Up Activism. East-West Center. http://www.jstor.org/stable/resrep06458.

Bakshi, P. (2023, March). Japan eyes more nuclear power for energy security. East Asia Forum. https://www.eastasiaforum.org/2023/03/14/japan-eyes-more-nuclear-power-for-energy-security/.

EIA (Energy Information Administration). (2020, November). U.S. Energy Information Administration - EIA - independent statistics and analysis. International - U.S. Energy Information Administration (EIA). https://www.eia.gov/international/analysis/country/JPN.

Fam, Shun Deng., Xiong, Jieru., Xiong, Gordon., Yong, Ding Li., Ng, Daniel. (2014). Post-Fukushima Japan: The continuing nuclear controversy. Energy Policy, Science Direct. https://doi.org/10.1016/j.enpol.2014.01.014.

GLOBIS Insights. (2023, January). Japanese energy security after Fukushima. YouTube. https://youtu.be/O0ōwh7mbqBM?si=zJgubMHa0YVwTfvK.

Heinrich, P., Galan, C., & Gonon, A. (2021). Chapter 7: The Fukushima event, or the birth of a political generation. In Being young in super-aging Japan: Formative events and cultural reactions. Essay, Routledge.

Hong, Sanghyun, Bradshaw, Corey, Brook, Barry. (2013). Evaluating options for the future energy mix of Japan after the Fukushima nuclear crisis. Energy Policy, Science Direct. https://doi.org/10.1016/j.enpol.2013.01.002.

Isin, Engin F. (2009). "Citizenship in Flux." Subjectivity 29:267–388.

International Atomic Energy Agency. (2016). Safety Reassessment for Nuclear Fuel Cycle Facilities in Light of the Accident at the Fukushima Daiichi Nuclear Power Plant. Safety Reports Series No. 90, IAEA, Vienna.

Japan Atomic Energy Relations Organization. (2022, June). 2021年度世論調査, The annual opinion survey on peaceful use of nuclear energy. 日本原子力文化財団, Japan Atomic Energy Relations Organization. https://www.jaero.or.jp/data/01jigyou/tyousaken-

Japan Atomic Energy Relations Organization, a. (2022, June). 原子力に関する世論調査, The annual opinion survey on peaceful use of nuclear energy. 日本原子力文化財団, Japan Atomic Energy Relations Organization. https://www.jaero.or.jp/data/01jigyou/pdf/tyousakenkyu2021/summary_2021_english.pdf

Japan Atomic Energy Relations Organization. (2023, March). 原子力に関する世論調査, The annual opinion survey on peaceful use of nuclear energy. 日本原子力文化財団, Japan Atomic Energy Relations Organization. https://www.jaero.or.jp/data/01jigyou/pdf/tyousakenkyu2022/summary_2022.pdf

Kingston, Jeff. (2012). "Japan's Nuclear Village." Asia-Pacific Journal. September 9, 2012. https://apjjf.org/2012/10/37/Jeff-Kingston/3822/article.html.

Kitada, A. (2013, June). Public opinion on nuclear power generation measured in continuous polls changes after Fukushima Daiichi Nuclear Power Plant Accident over the past 30 years. Transactions of the Atomic Energy Society of Japan. https://www.jstage.jst.go.jp/article/taesj/12/3/12_J12.039/_article.

Kucharski, Jeffrey., Unesaki, Hironobu. (2017). Japan's 2014 Strategic Energy Plan: A Planned Energy System Transition. Journal of Energy. https://doi.org/10.1155/2017/4107614.

Kucharski, Jeffrey B. & Unesaki, Hironobu. (2018). An institutional analysis of the Japanese energy transition. Environmental Innovation and Societal Transitions, Science Direct. https://doi.org/10.1016/j.eist.2018.07.004.

Liscutin, N. (2011, November). Indignez-vous! "Fukushima," new media and anti-nuclear activism in Japan! The Asia-Pacific Journal: Japan Focus. https://apjjf.org/2011/9/47/Nicola-Liscutin/3649/article.html.

McLellan, Benjamin C., Zhang, Qi., Utama, N. Agya., Farzaneh, Hooman., Ishihara, Keiichi N. (2013). Analysis of Japan's post-Fukushima energy strategy. Energy Strategy Reviews, Science Direct. https://doi.org/10.1016/j.esr.2013.04.004.

MHLW. (2011). "Shūgyō tayōka ni kansuru sōgō chōsa." Tokyo: MHLW.

Miyawaki, T., & Sasaoka, S. (2017). The Fukushima Nuclear Accident and Environmental Risk: A Survey of Fukushima Residents. Asian Journal for Public Opinion Research. https://doi.org/10.15206/ajpor.2017.5.1.1.

Nomura, S., Blangiardo, M., Tsubokura, M., Ozaki, A., Morita, T., & Hodgson, S. (2016, February). Post-nuclear disaster evacuation and chronic health in adults in Fukushima, Japan: A long-term retrospective analysis. BMJ Open. https://bmjopen.bmj.com/content/6/2/e010080.

O'Day, R. (2015, September). Differentiating sealds from freeters, and Precariats: The politics of youth movements in contemporary Japan. The Asia-Pacific Journal: Japan Focus. https://apjjf.org/-Robin-Oō Day/4376.

Ogawa, A. (2023). Anti-nuclear Citizens: Sustainability Policy and Grassroots Activism in Post-Fukushima Japan (1st ed.). Stanford University Press.

Oughton, D. (2016, September). Societal and ethical aspects of the Fukushima accident. Society of Environmental Toxicology and Chemistry. https://setac.onlinelibrary.wiley.com/doi/abs/10.1002/ieam.1831?hootPostID=4075be4895ee28f0ceb25148705d497a.

Sheingate, Adam D. (2003). "Political Entrepreneurship, Institutional Change, and American Political Development." Studies in American Political Development 17:185–203.

Slater, D., O'Day, R., Uno, S., Kindstrand, L., & Takano, C. (2015, September). SEALDs (students emergency action for liberal democracy): Research note on contemporary youth politics in Japan. The Asia-Pacific Journal: Japan Focus. https://apjjf.org/-David_H_-Slater/4375.

Suzuki, T. (2020). Nuclear Energy Policy after the Fukushima Nuclear Accident: An Analysis of "Polarized Debate" in Japan. IntechOpen. doi: 10.5772/intechopen.83435.

Tamura, A. (2018). Chapter 3: Dissolved Subjects, Activism and Ethics after Fukushima. In Post-Fukushima activism: politics and knowledge in the age of precarity. Routledge.

Uyanik, S. (2022). The Predicament of Japanese Energy and Climate Policy: The Rise of Local Governmental Politics in the Post-Fukushima Era. Asian Survey, 62(3), 497-523.

UNFCCC, United Nations Framework Convention on Climate Change. (2021). Japan's nationally determined contribution. https://unfccc.int/sites/default/files/NDC/2022-06/JAPANŌFIRST%20NDC%20%28UPDATED%20SUBMISSION%29.pdf

Vivoda, Vlado. (2012). Japan's energy security predicament post-Fukushima. Energy Policy, Science Direct. https://doi.org/10.1016/j.enpol.2012.03.044.

Vivoda, Vlado & Graetz, Geordan (2015) Nuclear Policy and Regulation in Japan after Fukushima: Navigating the Crisis, Journal of Contemporary Asia, 45:3, 490-509, DOI: 10.1080/00472336.2014.981283.

Wang, J., & Okabe, Y. (2020, January). Factors Affecting Acceptance of Nuclear Power Generation after the Fukushima Nuclear Disaster: A Comparison of Japanese and U.S. College Students. 千葉科学大学. https://cis.repo.nii.ac.jp/record/303/files/P001-010-Jinmin%20WANG%28Table1%E4%BF%AE%E6%AD%A3%E5%BE%8C%29.pdf

Wang Jing, Li Yazhou, Wu Jianlin, Gu Jibao, Xu Shuo. (2020, February). Environmental beliefs and public acceptance of nuclear energy in China: A moderated mediation analysis. Science Direct, Energy Policy. https://doi.org/10.1016/j.enpol.2019.111141.

White, P. (2015). Public participation in Japan's nuclear energy policy-forming process: Comparison of pre- and Post-fukushima Processes. Adelaide Research & Scholarship. https://digital.library.adelaide.edu.au/dspace/bitstream/2440/98559/2/02whole.pdf

World Nuclear Association. (2023, November). Fukushima Daiichi Accident. Nuclear Power in Japan, Japanese Nuclear Energy. https://world-nuclear.org/information-library/safety-and-security/safety-of-plants/fukushima-daiichi-accident.aspx.

Strategic Synergy: Advancing U.S.-Japan Semiconductor Industries through Collaborative Economic Statecraft

Leila Aden

ABSTRACT

This paper examines how the United States and Japan use export controls to counter China's growing influence and how their approaches have reshaped their domestic semiconductor industries. China's rapid technological advancements and growing influence in the global semiconductor industry have become a significant concern for both the United States and Japan, prompting a need for coordinated strategies that counterbalance this rise. However, the United States' unilateral approach to export controls, intended to limit China's access to advanced technologies, has had unintended consequences. These measures have impacted the semiconductor industries of U.S. allies, including Japan, and have strained relations by imposing economic burdens and disrupting established supply chains. The recent change in approach has weakened collective trust in American leadership and weakened crucial alliances, ultimately undermining the collective effort needed to effectively address the challenge posed by China.

POLICY RECCOMMENDATIONS

- U.S. policymakers should prioritize gathering comprehensive data on the long-term impact of U.S. export controls both domestically and globally to assess their effectiveness.
- U.S. policymakers should re-evaluate the need for decoupling from China and reconsider the pressure placed on allies to do the same, ensuring that strategic decisions align with the economic realities and security concerns of allied nations while maintaining global competitiveness.
- U.S. policymakers should recognize Japan's potential to become the new hub for semiconductor production in East Asia, similar to Taiwan, and work collaboratively to strengthen this role by fostering trust, investing more in Japan's semiconductor industry, and pursuing policies that support Japan's economic and security interests.

Growing global demand for semiconductors and the need to secure supply chains against geopolitical risks, especially in the Indo-Pacific region, is reshaping the U.S.-Japan semiconductor relationship. Historically, both nations have been leaders in the industry, with Japan pioneering manufacturing technologies and the United States driving innovation and design. In recent years, this partnership has strengthened in ways due to mutual concerns about the growing dominance of Chinese semiconductor capabilities and the strategic importance of semiconductors for national security and economic stability. The partnership has also faced doubt and reduced trust from Japan's side due to the U.S.'s global conduct and its handling of conflicts around the globe.[53]

The United States aims to be a leader in the global semiconductor industry but faces incredible challenges in achieving that objective due to vulnerable supply chains, defensive trade policies that have unintended consequences, and lack of feasibility of achieving complete self-sufficiency due to high costs and complexity. Instead, focusing on supply chain resilience and strategic joint initiatives with countries like Japan that have similar ambitions, concerns, and is a longstanding U.S. ally in the region, can help propel the U.S. semiconductor industry.

One of the main factors that work against the U.S.'s attempts to lead the global semiconductor market is its recent approach to export controls. The race for technological hegemony is mainly between the U.S. and China and nearby countries are pulled into this new age Cold War and has caused a sense of alienation among Indo-Pacific allies. As semiconductors become increasingly tied to national security and economic security, the United States would benefit from friend shoring, using established relations with key allies to address China's rapid technological developments. Although Japan faces its own set of challenges, the two countries are poised to act as a dam, using bilateral export controls to protect free trade and a rules-based order in the region.

Another factor that works against U.S. interests in the Indo-Pacific is the lack of consideration for the economic ties countries are forced to have with China due to their geographical proximity.[55] This is one of the biggest challenges Japan faces. Although both the United States and Japan are economically tied with China, Japan has much more to risk by agitating them, especially with export controls. China is

Japan's largest trading partner, accounting for a significant portion of its imports and exports. This close economic relationship leaves Japan exceptionally vulnerable to any disruptions or retaliatory measures from China. So, while the United States is invaluable ally of Japan, Japan cannot easily be onboard with the Cold War between the United States and China.

The paper will begin with a background on the history of U.S.-Japan relations regarding semiconductors and analyze the political situation in the United States leading up to the 2022 export controls. Next, it will analyze U.S. export controls and Japan's export controls and give a case study on semiconductor policies from both countries. Then, it will analyze the efficiency of these controls and analyze any available data as well as the extent of U.S./Japan collaboration. It will then analyze challenges faced by Japanese firms due to U.S. export controls and how the U.S. and Japan are working with TSMC. It will conclude with an analysis on how Japan is handling the U.S./China trade war, the implication that has for U.S./Japan relations, and discussing its policy implications for U.S. policymakers.

This research project aims to answer: 1) What strategies can the United States and Japan implement through their semiconductor policies and economic statecraft to deepen their strategic partnership and fortify their semiconductor supply chain to ensure technological dominance in the Indo-Pacific, while adeptly countering China's expanding influence in the region? 2) How do U.S. export controls impact both the U.S. and Japan's semiconductor industries and hinder their progress? 3) What are the areas of alignment and divergence between the U.S. and Japan regarding trade policies, economic priorities, and technological standards?

Background of U.S.-Japan Semiconductor Partnership

The Japanese semiconductor industry emerged as a competitive producer in the late 1970s and achieved most of its success in DRAMs. By the 1980s, the U.S. market share of semiconductor production went down from 70% in 1978 to 20% in 1986 while the Japanese share increased from around 30% to roughly 75% 20. Japan proved to be a formidable foreign rival and triggered U.S. firms to action. The Semiconductor Industry Association (SIA) had two complaints, (1) that Japanese firms were dumping into U.S. markets and (2) that market barriers existed in Japan, restricting foreign access. The petitions and complaints of the SIA coincided with a political situation that worked in their favor 20. The Reagan administration was facing pressure domestically to open foreign markets and address perceived trade imbalances with Japan specifically. Setting up a trade agreement was politically advantageous for the Reagan administration, allowing them to address trade concerns while upkeeping the president's image of adhering to free-market principles.[29]

Additionally, Japan was facing growing international scrutiny and potential economic sanctions due to the U.S. accusing them of dumping semiconductors in third-world markets, posing a threat to local industries and driving U.S. competitors out of business.[52] Combined with the threat of the U.S. cutting off Japan's access to their market, Japan agreed to negotiate and eventually sign a trade agreement in 1986 Semiconductor Trade Agreement. The agreement had three main provisions: antidumping both in U.S. markets and third markets, raising foreign market access to 20%, and maintaining a fair market value by increasing the price of domestic semiconductor products.[20]

Japan's Ministry of International Trade and Industry (MITI) then took on a new approach to its semiconductor industry. They began pursuing the idea of imposing a voluntary export restraint (VER), which is a self-imposed restriction that limits the number of goods exported to raise prices.[20] Although MITI had no statutory authority to force Japanese firms to comply, they still instructed them to reduce exports while simultaneously instructing them to purchase more foreign semiconductors, essentially stockpiling them.

Japanese firms did not immediately comply with the terms of the trade agreement as Japan did not directly control the industry, an aspect overlooked during negotiations. MITI, struggling to enforce the trade agreement, was perceived as fickle and this prompted both the SIA and the Reagan administration to action in fear of having a failed trade agreement. In April 1987, President Reagan imposed 100% tariffs on $300 million worth of Japanese imports, citing that Japan allegedly violated their agreement to keep domestic semiconductor product prices high to prevent the practice of dumping.[29]

The anti-dumping provisions in the 1986 agreement turned out to be partly illegal under the World Trade Organization's 1947 General Agreement on Tariffs and Trade (GATT).[19] This forced the United States to remove this provision during the renegotiation of the agreement in 1991. The third-market provision was also removed after the European Economic Community (EEC) filed a complaint and it was ruled by the World Trade Organization (WTO) that it violated Article 11 of the GATT.[1] The U.S. and Japan re-entered the trade agreement in 1991, aiming to achieve the 20% foreign access to Japan's market and the United States achieved its target market share when the agreement

TABLE 1. Timeline of U.S.-Japan Semiconductor Relations from the 1980s to the Present

Year	Event	Details
1970s	Emergence of Japan's Semiconductor Industry	Japan's semiconductor industry rapidly grows, challenging U.S. dominance in global markets.
1980s	U.S.-Japan Semiconductor Trade Disputes Begin	Rising competition from Japan leads to trade tensions. U.S. firms accuse Japan of "dumping" semiconductors in U.S. markets while restricting access to Japan's markets.
1986	U.S.-Japan Semiconductor Agreement	A trade agreement is signed to address concerns about Japanese market access to ensure fair competition.
1991	Renewal of the 1986 Agreement	Agreement is renewed, focusing on increasing foreign market share in Japan.
1996	Conclusion of the 1986 Agreement	Agreement officially ends, with Japan agreeing to maintain open and competitive markets.
2000s	Collaboration on Advanced Technologies	The U.S. and Japan strengthen ties in semiconductor R&D, collaborating on new technologies.
2010s	China's Rise in Semiconductors	China's growing investment in its semiconductor industry leads to increased compeition and global tensions.
2018	U.S.-China Trade War begins	The U.S. imposes tariffs on Chinese goods, including semiconductors, escalating trade tensions.
2019	Revision of Japan's Foreign Exchange and Foreign Trade Act (FEFTA)	Japan revises the FEFTA to tighten controls on foreign investment in sensitive sectors, such as semiconductors, due to national security concerns. Revisions were partly influenced by U.S. semiconductor policies and growing concerns over China's influence.
2020	U.S. Pushes for Decoupling from China	The U.S. pressures allies, including Japan, to reduce reliance on Chinese semiconductors, impacting U.S.-Japan relations.
2022	Japan's Economic Security Promotion Act (ESPA)	Japan passes the ESPA Act, aimed at securing critical supply chains, including semiconductors. The act reflects vulnerabilities exposed during the pandemic and growing concerns over China's technological growth.
2022	The U.S. passes the CHIPS and Science Act	Authorizes roughly $280b billion to boost domestic R&D and semiconductor manufacturing capabilities to counter China and strengthen U.S. supply chain resilience.
2022	The U.S. announces sweeping export controls on semiconductors	The U.S. Department of Commerce imposes broad export controls to limit China's access to advanced semiconductors.
2023	Japan and the Netherlands agree to join the U.S. on passing export controls targetting China	Although Japan and the Netherlands have not stated China as the target of their export controls, both countries proceeded with export controls targeting advanced chip-making equipment.

China's Influence in the Semiconductor Industry and U.S.-China Relations vs. Japan-China Relations

China's influence in the semiconductor industry has grown substantially over the past decade, driven by significant government investments and strategic initiatives aimed at achieving self-sufficiency and global leadership in this critical industry. As part of its "Made in China 2025" plan, China has prioritized the development of advanced semiconductor technologies, seeking to reduce dependency on foreign suppliers and enhance its position in the global value chain.[2] This has led to increased competition with the United States and Japan, both of which are traditional powerhouses in the semiconductor field and have immense national security and economic security concerns regarding China.

As previously stated, Japan is in a unique predicament when it comes to China. Japan and China have a long and tumultuous history that makes their relationship difficult. This historical context exacerbates any tensions between the two such as tensions that rose due to territorial disputes over the Senkaku/Diaoyu Islands as well as the overall tensions in the region and the threat of that spilling over into Japan or China.[6] There are also economic security concerns from both sides. China has proven to be a bad actor, often using economic retaliation and exploiting Japan's interdependence. This has caused Japan to prioritize economic security in recent years, focusing on friendshor- diversifying to reduce dependence on China. Japan's close ties with the United States as well as its recent export controls on semiconductors worries China and further heightens tensions between the two countries.

An example of Japan's plans to reduce dependence on China is their rare earth minerals supply chain. In 2010, a Chinese fishing boat collided with Japanese Coast Guards. China's response to that crisis was to stop exporting rare earth materials, accelerating Japan's plan to de-risk and diversify from China.[25] In 2010, Japan imported roughly 90% of its rare earth minerals from China and by 2019, they reduced their imports to 58% with a stated goal of importing less than 50% by 2025.[15] The Japanese government also created a financial package with five main objectives: (1) to support the investment in equipment to reduce the use of rare earth minerals, (2) to develop technology to use alternative materials, (3) to promote the recycling of rare earth minerals by investing in recycling facilities, (4) to develop mines and acquire interests in rare earth mines around the world, and lastly, (5) to stockpile on rare earth minerals as well as create a policy framework to ensure reserves of critical minerals.[27]

In 2020, Japan announced that it will increase the stockpile of rare earth minerals from 60 days to 180 days of domestic consumption. In 2022, Japan passed the Economic Security Promotion Act (ESPA) with the aim of creating resilient supply chains and expanded fiscal support to Japanese firms to incentivize them to reshore and diversify from China, especially in critical industries such as the semicon-

-ductor industry. In 2023, after a mutual agreement between the United States, Japan, and the Netherlands, Japan expanded its export restriction on 23 types of cutting-edge semiconductor manufacturing technologies. Although China is not stated as the intended target, this move came after the U.S. passed sweeping export controls in 2022, cutting China's access to advanced manufacturing technologies. According to a 2024 report from Bloomberg, Japan is now also planning to expand its export restriction on four more technologies related to semiconductors and/or quantum computing.[58]

Like Japan, the United States also has a complex history with China. Despite ideological differences, the United States and China became more economically intertwined throughout the years. The United States, unlike Japan, does not have as many risks associated with being economically connected with China. The U.S. is less dependent on Chinese trade relative to the size of its overall economy and has a more diversified range of trade partners. Combined with its military might, leadership on the global stage, and well-established foreign relations, the United States is much harder to retaliate against, though it is not impossible.

The trade conflict between the United States and China began in 2018 with the Trump administration adopting a unilateral, protectionist, and "America First" attitude to the relationship.[43] President Trump advocated for trade protectionism, arguing that the U.S. trade deficit was extremely high due to unfair trade practices from China such as intellectual property theft and China restricting market access to U.S. firms. As part of his "America First" policy, President Trump shifted the course of U.S. trade policies from multilateral free trade agreements (FTA) to bilateral trade deals. The trade war officially began after the Trump administration increased tariffs on Chinese imported goods.[56]

This period was marked by a significant blow to the U.S. economy as well as reduced trust in U.S. trade policies around the globe. Multiple countries, including allies, passed retaliatory tariffs that eventually forced the Trump administration to use an economic program from the Great Depression called the Commodity Credit Corporation (CCC) to support American farmers who lost revenue due to the imposed tariffs.[42] Trump's public remarks that were aimed at allies and adversaries alike also caused a collective re-evaluation of American leadership on the global stage and dealt a damaging blow to the United States' reputation as well as its foreign relations.

Trump's views align with Reagan-era trade policies in the 1980s, especially with the 1986 Semiconductor Trade Agreement, in which he argued then that foreign countries such as Japan and China are economically exploiting the United States through unfair trade practices.[45] He believed that tariffs would promote domestic manufacturing capabilities and revive U.S. domestic industries.[13] His imposed tariffs, however, failed to meet his stated goal of reducing the trade deficit. Economists argue that while the tariffs reduced U.S. imports from China, they increased imports from other countries making the United States' overall trade deficit unchanged and less efficient as they were sourcing from third-world countries.[32]

The trade war was further escalated under the Biden administration when the U.S. Department of Commerce announced unilateral export controls on advanced semiconductor technologies and equipment aimed at restricting China's access to these critical technologies. These export controls were a continuation of the Trump-era tariffs and were developed as part of a broader strategy to limit China's ability to develop advanced semiconductors domestically, especially considering their civilian-military fusion doctrine.[11] The export controls targeted not only specific technologies but also key components and machinery necessary to produce high-end semiconductors.[50] In 2023, the U.S. Department of Commerce updated its semiconductor export controls to close exploited loopholes that were impacting the efficiency of the 2022 export controls.[51]

This move stunned U.S. allies, especially Japan, as they did not receive any warnings and were not brought onboard to pass complimentary controls. In the following months, foreign companies exported record amounts of chipmaking equipment to China while U.S. companies were banned from doing so due to the export controls.[57] The U.S. government then began to hastily pressure and negotiate with allies such as the Netherlands and Japan to pass similar export controls, banning China from accessing chipmaking equipment. The unilateral approach to export controls further impacted global trust in American leadership and strained relations with allies as U.S. policymaking was seen as erratic and unpredictable.

Analysis of American vs. Japanese Export Control and Semiconductor Policies

In 2022, the Biden administration decided to maintain the tariffs they inherited from the previous administration and couple it with federal investments to revamp the United States' domestic semiconductor industry. By bolstering domestic semiconductor manufacturing capabilities, the U.S. government aims to reduce dependency on foreign manufacturers, mitigate the risks associated with supply chain disruptions by relying on domestic production, and address the economic concerns previously mentioned such

as the high trade deficit, unfair trade practices, and theft of intellectual property and market barriers.

The most prominent of the federal investments is the CHIPS and Science Act of 2022, which allocated roughly $280 billion for domestic semiconductor manufacturing and research. The act aims to revitalize the domestic semiconductor industry, seeking to separate from China on important technological industries by reducing dependency. More importantly, the act emphasizes the importance of partnerships with allied nations to foster an integrated and resilient semiconductor ecosystem.

The Biden administration also implemented a range of export controls and investment screening mechanisms to complement its federal investments and protect U.S. semiconductor technology from being accessed by potential adversaries, particularly China. The U.S. Department of Commerce's Bureau of Industry and Security (BIS) administers the Export Administration Regulations (EAR) which restricts the export of dual-use, military and civilian, technologies. Semiconductors fall under this category due to their potential use in advanced military systems. BIS has also implemented specific controls on semiconductor manufacturing equipment and technology, requiring exporters to obtain licenses before shipping these items to certain countries, notably China.

BIS also maintains an Entity List, which includes foreign organizations, businesses, and individuals that are subject to specific export restrictions. Companies on the list, such as Huawei and Semiconductor Manufacturing International Corporation (SMIC), face strict requirements that limit their access to U.S-origin technology and components.[11] These restrictions are designed to prevent the transfer of advanced semiconductor technologies to entities that pose a national security risk or are involved in activities contrary to U.S. foreign policy interests.

As for investment screening mechanisms, the Committee on Foreign Investment in the United States (CFIUS) is an interagency committee authorized to review transactions involving foreign investment in U.S. businesses to determine their impact on national security, including semiconductor companies.[9] Recent reforms under the Foreign Investment Risk Review Modernization Act (FIRRMA) have expanded CFIUS's authority to scrutinize a broader range of transactions, including non-controlling investment and real estate transactions near sensitive military installations.[47] The Export Control Reform Act (ECRA) also grants the Department of Commerce permanent statutory authority to implement export controls, including emerging and foundational technologies that are deemed as essential to national security, such as advanced semiconductors.[46]

In 2022, Japan implemented the Economic Security Promotion Act (ESPA) to enhance the nation's resilience and economic security amid escalating geopolitical tensions, both between the U.S. and China and Japan and China. The primary motivation behind the ESPA was to safeguard critical technology sector, such as semiconductors, from the risks associated with supply chain disruptions and to protect Japan from economic coercion from other countries due to economic dependency.

Japan, like the United States, has also implemented a range of export controls and investment screening mechanisms to protect its semiconductor industry and national security interests. Japan's export control system is governed primarily by the Foreign Exchange and Foreign Trade Act (FEFTA) which was designed to regulate the export of goods and technologies that have national security implications. Under FEFTA, the Ministry of Economy, Trade, and Industry (METI) administers export controls, requiring exporters to obtain licenses for semiconductor manufacturing equipment and materials. METI regularly updates the list of controlled items, aligning it with international frameworks such as the Wassenaar Arrangement, an international agreement established in 1996 by 42 participating countries in which its primary purpose is to promote transparency and responsibility in the transfer of conventional arms and dual-use goods and technologies.[50]

Japan also employs catch-all controls that allow METI to restrict exports that are not listed explicitly in the control lists but could be used for the development of weapons of mass destruction (WMDs) or contribute to military end-use in countries of concern, which provides Japan the flexibility to respond to emerging threats. Exporters are also required to verify the end-users and end-uses of their products to ensure that they are not diverted to unintended military applications. METI conducts rigorous checks and demands comprehensive documentation from exporters to ensure the information provided is accurate.

For investment screening mechanisms, amendments to FEFTA have strengthened Japan's ability to screen foreign investments in sensitive fields such as the semiconductor field. The threshold for prior notification of foreign investments was lowered from 10% to 1% of voting rights.[51] This change enables the government to review and potentially block investments that might pose a threat to Japan's national security, particularly from countries that have strategic rivalries with Japan such as China. Japan has also identified certain sector critical to their national security and has placed additional restrictions on foreign investments in

-ments in these areas.

Case study of the Chips & Science Act vs. the ESPA Act:

The CHIPS and Science Act aims to strengthen domestic semiconductor manufacturing and reduce reliance on foreign suppliers by providing substantial funding to support the development and expansion of semiconductor manufacturing facilities within the U.S. It includes provisions for subsidies, grants, and tax incentives to encourage investment in chip production and research. A key objective of the act is to revitalize the U.S. semiconductor industry by supporting the construction of new fabs, advancing R&D, and fostering workforce development. The legislation also emphasizes enhancing the resilience of the semiconductor supply chain and promoting collaboration between the three sectors of government, private industry, and academia.

The act has had a transformative impact on the U.S. semiconductor industry and its funding and incentives have spurred significant investments in domestic semiconductor manufacturing, leading to the construction of new fabs and expansion of existing facilities. This influx of capital is expected to boost production capacities and help mitigate supply chain vulnerabilities exposed by recent global disruptions. The act has also accelerated advancements in semiconductor research and development, fostering innovation and supporting the development of next-generation technologies. By providing financial support and strategic guidance, the CHIPS and Science Act has strengthened the competitive position of U.S. semiconductor firms and enhanced their ability to meet both domestic and international demand.

Japan's Economic Security Promotion Act (ESPA) represents a strategic pivot in the nation's industrial policy, focusing on strengthening economic security and revitalizing its semiconductor industry. The ESPA consolidates several laws aimed at enhancing Japan's resilience against geopolitical and economic uncertainties. One of its key objectives is to reduce dependency on foreign technology and bolster domestic production capabilities in critical sectors such as semiconductors. By encouraging companies to consider economic security in their strategic decisions, the ESPA seeks to foster a more robust and self-reliant industrial base. The act supports initiatives that promote innovation, safeguard critical technologies, and ensure the secure supply of essential components. It also prioritizes two-way dialogue and collaboration between the government and the private industry to advance semiconductor technology and maintain competitive advantages in a rapidly evolving global market.[49]

Implementation involves promoting investment in semiconductor R&D, supporting the formation of strategic partnerships with international firms, and ensuring that critical technologies are developed and produced within Japan. The ESPA also includes measures to secure supply chains, protect intellectual property, and encourage innovation through public-private collaborations. By aligning policy goals with practical support mechanisms, the ESPA act seeks to address vulnerabilities in Japan's semiconductor sector and position the country as a key player in the global technology landscape.

The ESPA has had a notable impact on the Japanese semiconductor industry, much like the CHIPS & Science Act. The act has facilitated increased investment in domestic semiconductor production and R&D, leading to the establishment of new research centers and manufacturing facilities. Initiatives like the Leading-Edge Semiconductor Technology Center (LSTC) and collaborations with international partners such as IBM through the Rapidus consortium are direct outcomes of the act's strategic goals. These efforts aim to close the technological gap between Japan and global leaders like TSMC and Samsung. Additionally, the act has provided financial support and incentives for both domestic and foreign companies to expand their semiconductor operations in Japan, which has helped to enhance the country's technological capabilities and reduce supply chain risks.[27]

The CHIPS and Science Act and the ESPA Act both address the need to strengthen domestic semiconductor industries, but they differ in focus and approach. The CHIPS Act centers on revitalizing U.S. semiconductor manufacturing through substantial federal funding, tax incentives, and subsidies for new fabs and R&D. Its approach is heavily focused on boosting domestic production capacity and reducing dependency on foreign sources by directly supporting U.S. companies and infrastructure and setting the U.S. industry for potentially becoming self-sufficient.

In contrast, the ESPA act emphasizes economic security and strategic self-sufficiency within Japan's broader industrial policy framework. Its approach includes fostering international collaborations and partnerships, such as those with IBM and IMEC, alongside strengthening domestic capabilities. While both policies share objectives of enhancing semiconductor production and innovation, the CHIPS Act is more internally focused on U.S. infrastructure and technology leadership, whereas the ESPA integrates international cooperation as a central strategy to revive Japan's semiconductor industry, recognizing the need to compen-

sate for areas Japan is not strong in within the semiconductor industry.

Analyzing the Efficiency of U.S.-Japan Controls

The efficiency of U.S. export controls has been subjected to intense criticism from both domestic and foreign companies as the decision to base export controls on geography rather than affiliation has been because of the failure of the BIS to determine whether AI hardware is being used for civilian use or military use.[40]

This new approach was mainly a response to China's revamped doctrine of infusing military and civilian sectors, preventing countries like the U.S. from determining the end-users of semiconductor chips produced. Although the intention was to limit China's technological access, the export controls potentially harmed the U.S. domestic industry and the industries of allied countries.[35]

U.S. firms experienced revenue losses due to restriction on sales to certain Chinese companies without government licenses. Although there isn't data on the long-term effects of the controls, The Federal Reserve Bank of New York released a report in 2024 revealing that affected U.S. firms are struggling to find new buyers, resulting in a notable decline in revenue, profitability, bank credit, and employment. Additionally, concerns about future restrictions are deterring the formation of new commercial relationships, not only with Chinese firms but also with firms in other countries, as third-party firms seek more reliable sources of supply that are not affected by export controls.[39]

The competitiveness of any semiconductor industry depends on economies of scale and extensive capital investments. With China being the largest semiconductor market, accounting for 31.4% of global purchases in 2022, any reduction in sales significantly undermines U.S. firms. To deny key Chinese firms access to U.S. technologies means export controls impose immediate revenue losses on the affected U.S. suppliers. Specifically, U.S. suppliers, because of export controls, experienced a notable decline in stock prices for at least 20 days, with a 2.5% abnormal drop representing an average market capitalization loss of $857 million per supplier and total losses of $130 billion. There has also been a decline in bank lending to these suppliers, further affecting their competitive edge.[39]

The strategic response of China to U.S. export controls was also unaccounted for and is exemplified by the Dutch lithography company ASML, which saw increased purchases of its machinery by China despite U.S. restrictions, supporting the argument that the U.S. passed these controls unilaterally and without informing key allies. Only after significant pressure from the U.S. did the Dutch government limit ASML's exports to China. By then, China had stockpiled enough in anticipation of U.S. export controls going into effect.[14] Although China managed to stockpile chipmaking equipment, the controls will freeze China at the chip manufacturing level while the rest of the world continues to advance.

Affected suppliers are also less likely to form new relationships with Chinese customers with analysis showing a 50%-75% increase in terminations and a 60%-80% decline in new relationships, indicating a significant and broad decoupling from China. The study also finds that suppliers are unable to offset the reduction by finding new customers

TABLE 7. Real Effects of Export Controls
The New York Federal Reserve Bank, Geopolitical Risk and Decoupling: Evidence from U.S. Export Controls,

Dependent variables:	Cash Flow		Revenues		EBIT		CAPEX		Employees	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Panel A: Full Sample					
Affected · Post	-0.021**	-0.017**	-0.108**	-0.083**	-0.019**	-0.016*	0.006*	0.005	-0.087**	-0.069**
	(0.007)	(0.007)	(0.036)	(0.032)	(0.007)	(0.008)	(0.003)	(0.003)	(0.036)	(0.031)
Observations	32,108	32,108	32,328	32,328	32,110	32,110	32,065	32,065	31,899	31,899
					Panel B: Restrictive Sample					
Affected · Post	-0.021**	-0.017**	-0.109**	-0.085**	-0.020**	-0.016*	0.006*	0.004	-0.09**	-0.072**
	(0.007)	(0.007)	(0.037)	(0.032)	(0.008)	(0.008)	(0.003)	(0.003)	(0.036)	(0.031)
Observations	26,771	26,771	26,965	26,965	26,773	26,773	26,737	26,737	26,601	26,601
Fixed Effects:										
Cohort-Firm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cohort-SIC-Year	✓		✓		✓		✓		✓	
Cohort-SIC-Size-Year		✓		✓		✓		✓		✓

domestically or internationally. This inability to reconfigure supply chains results in a greater reliance on domestic costumers but the total numbers of customers still decline. There is no evidence of reshoring or friend-shoring, as suppliers do not significantly increase their customer base in politically friendly regions in Asia or Europe.[39]

The collateral damage of export controls on U.S. suppliers is statistically and economically significant. Export controls lead to a decline in cash flow by 20% of its average value for treated firms, revenues for treated firms declined by 8.6%, and EBIT declined by 25% of its average value in 2022. Affected suppliers adjusted to the negative consequences of export controls by reducing employment but not investment. The effect on investment is marginally significant and becomes insignificant once fixed effects are interacted with size quartiles. There is no robust evidence that investment is affected by export controls. However, the effect on employment is significant, representing a 7.1% decline in the total number of employees. The asymmetric effect on investment and employment suggests that export controls do not significantly change the long-term investment opportunities of affected firms but may require short-term adjustments to the labor force.[39]

Targeted Chinese firms may also increase purchases from non-U.S. firms with whom they have pre-existing relations. Non-U.S. firms are generally exempt from U.S. export controls unless they are using U.S. designed hardware or software, in which case they can be included under the Foreign Direct Product Rule. Table 11 shows that non-U.S. firms supplying goods to Chinese targets experience higher revenues and profitability as short-term phenomenon following the inclusion of Chinese targets in the U.S. export control lists. The results are stronger for non-U.S. firms headquartered in U.S.-allied countries, likely because they produce high-tech products comparable to those made by U.S. firms. China's strategic response was made evident by Chinese firms buying from ASML before the Dutch government could get on board with U.S. export controls, exploiting that time delay.[39]

Japan's export control system is largely based on the Wassenaar Arrangement, which focuses on export controls for conventional arms and dual-use goods and technologies. Japan frames its export controls as aligning with the guidelines of the agreement to emphasize its commitment to multilateral agreements and international norms. This positioning helps Japan portray its measures as part of a broader effort to promote global security and prevent the proliferation of sensitive technologies rather than as actions specifically targeting China.

TABLE 11. Supply Chain Circumvention

The New York Federal Reserve Bank, Geopolitical Risk and Decoupling: Evidence from U.S. Export Controls,

Panel A: Treated firms in allied regions

Dependent variables:	Revenues		EBIT	
	(1)	(2)	(3)	(4)
Affected · Post	0.159***	0.131**	0.006	0.004
	(0.048)	(0.050)	(0.007)	(0.008)
Fixed Effects:				
Cohort-Firm	✓	✓	✓	✓
Cohort-SIC-Year	✓		✓	
Cohort-SIC-Size-Year		✓		✓
Observations	97,697	97,697	98,192	98,192

Panel B: Treated firms in all regions

Dependent variables:	Revenues		EBIT	
	(1)	(2)	(3)	(4)
Affected · Post	0.045*	0.034	0.001	0.002
	(0.025)	(0.023)	(0.003)	(0.003)
Fixed Effects:				
Cohort-Firm	✓	✓	✓	✓
Cohort-SIC-Year	✓		✓	
Cohort-SIC-Size-Year		✓		✓
Observations	359,052	359,052	360,701	360,701

Japan frames its export controls as aligning with the guidelines of the agreement to emphasize its commitment to multilateral agreements and international norms. This positioning helps Japan portray its measures as part of a broader effort to promote global security and prevent the proliferation of sensitive technologies rather than as actions specifically targeting China. By doing so, Japan seeks to avoid openly antagonizing China while pursuing its strategic objectives of reducing dependency, limiting China's access to advanced semiconductors, and aligning with U.S. export controls.

China and Japan have enjoyed a mutually beneficial economic and trade relationship for over 50 years. Bilateral trade has increased more than 300 times, and Japanese Foreign Direct Investment (FDI) in China exceeds $120 billion 49. Japan relies heavily on the Chinese market for its semiconductor industry, exporting 50% of its semiconductor manufacturing equipment to China for a third straight quart in the January-March 2024 period.[49] Japan's planned export controls will require case-by-case government approval for exporting certain semiconductor equipment to countries including China. This move goes against market rules and could disrupt the semiconductor industry's development in both nations. Japan's legislative measures for highlights Japan's position between the United States and China. The decision to make export controls a case-by-case situation is a middle ground between the two countries seeking Japan's full cooperation.[12] Japan is also considering China's past recorded behavior as a bad actor to think about and take measures to protect its long-term economic security.

Japan's export controls, though seemingly aligned with U.S. export controls, are not as strict and extensive and aims to reduce the effects of shifting export controls on its domestic industry by maintaining a balance of collaboration and autonomy. The aim is to make Japan an indispensable part of the global semiconductor supply chain and pull back from over-relying on foreign countries while also recognizing its own limitation and working with allied countries in areas where Japan's domestic industry doesn't excel at.[41]

METI is also shifting its focus to strengthening its catch-all controls, emphasizing the need for prior consultation for technology transfers with potential military applications. Although not mandatory yet, this consultation is expected to become a requirement by fall 2024. METI plans to create a new list of regulated technologies, focusing on high-risk transactions where Japan holds global indispensability or superiority. The goal is to prevent the inadvertent enhancement of manufacturing capabilities for unauthorized recipients, as technology transfer is harder to control once it occurs, sticking to the principles of the Wassenaar Agreement.[3]

Both the United States and Japan face struggles balancing national security concerns, economic security concerns, and the demands of the private sector. From the perspective of national security, the U.S. has achieved its goal of slowing down China's rapid growth in the semiconductor industry. However, it faces pressure from the private sector and the domestic industry who face supply chain issues and potential revenue losses due to the strict export controls. The United States also faces pressure globally as the export controls are perceived as unilateral and came without warning while allies were still grappling with the strained relations from the Trump administration.

Japan namely faces struggles with economic security as decoupling from China is impossible. Unlike the United States' renewed interest in decoupling, Japan has been pursuing de-risking from China for at least ten years. There is a disconnect between the government's desire to secure the country's economy while also maintaining or even furthering its economic ties with China. From a different perspective, Japan's economic policies can be interpreted as incoherent. While there is a definite push for de-risking, Japan has become increasingly economically intertwined with China, advocating for initiatives such as the Regional Comprehensive Economic Partnership (RCEP) and pursuing free trade agreements with China.[54]

Unlike Japan, which is pursuing de-risking instead of decoupling, the conversation of decoupling is frequently brought up in the United States. There is a political push to pursue even more strict export control measures that set the stage for decoupling from China. This push, however, would have detrimental effects both on the U.S. economy and supply chains as well as global supply chains. According to the Boston Consulting Group (BCG), if the United States government pursued decoupling, U.S. firms stand to lose about 18% of their global market share value and roughly 37% of their global revenue 2. This move would also cost the U.S. economy roughly 15,000-40,000 domestic jobs. Although slightly less dramatic, if the United States maintains the current restrictions that are in place, U.S. firms lose about 8% of their global market share and roughly 16% of their global revenue.[2]

The concept of decoupling would also have an impact on foreign relations and economic interdependence globally.

For the U.S. to successfully achieve broad decoupling from China, the global semiconductor value chain would have to reconfigured and reshored. According to a report from the SIA and BCG, the United States would need a minimum of $1 trillion in upfront investment to create and maintain a sufficient domestic supply chain, would incur costs ranging from $45-$125 billion in recurring annual operational costs, and would increase chip prices 35%-65% globally 2. Beyond the economic costs, decoupling between the United States and China would stifle future advancements in the semiconductor industry globally. This will most likely impact the current system of international order and would bring about two distinct systems, increasing prices globally and impacting semiconductor end-users.

U.S.-Japan Collaboration

In May 2022, Japan and the U.S. formalized their semiconductor collaboration through the Japan-U.S. Commercial and Industrial Partnership (JUCIP) and launched a joint task force to develop next-generation semiconductors. This initiative includes establishing the Leading-Edge Semiconductor Technology Center (LSTC) in Japan, modeled after the U.S. National Semiconductor Technology Center (NSTC), and focusing on advanced chip technologies. Both countries are also addressing semiconductor vulnerabilities heightened by the COVID-19 pandemic and increasing competition from China, with Japan enacting the Economic Security Promotion Act (ESPA) to prioritize economic security in decision-making.[36]

Japan's strategy involves several key elements: forming partnerships with the U.S., such as the Rapidus consortium, to develop 2 nm chips; creating the LSTC for advanced R&D; establishing new chip manufacturing bases, including a joint venture with Taiwan's TSMC; and providing subsidies for domestic and foreign semiconductor production. This shift marks a departure from Japan's previous aim of self-sufficiency and aligns with broader efforts by both Japan and the U.S. to address semiconductor supply chain issues and strategic risks.

The Rapidus initiative, launched in August 2022, aims to leapfrog several technology nodes to start producing 2 nm chips by 2027 17. This ambitious plan involves collaboration with IBM and IMEC, and substantial Japanese government support, including significant funding for R&D and infrastructure. Despite this, Rapidus faces challenges, such as a lack of experience in advanced chip manufacturing and the complexities of skipping multiple technology nodes.[16]

Japan remains competitive in certain semiconductor areas and is leveraging its expertise in semiconductor materials and equipment. The Japanese government is also supporting U.S. firms like Micron Technology and Western Digital with substantial financial incentives to enhance semiconductor manufacturing capabilities in Japan. Overall, Japan's new semiconductor strategy represents a critical effort to reclaim its position in the global semiconductor market through strategic partnerships, significant investments, and innovative technological advancements.

Japan's national security strategy also reflects a nuanced approach to integrating itself into the global semiconductor supply chain while maintaining a degree of autonomy from both China and the United States. This strategy seeks to navigate the complex geopolitical landscape of the semiconductor industry without becoming entangled in the ongoing trade conflicts between these two major powers.[6]

Challenges Faced by Japanese Semiconductor Firms Due to U.S. Export Controls

Japanese semiconductor firms have encountered challenges due to U.S. export controls, which have been intensified as part of broader geopolitical tensions. The U.S. has imposed restrictions on the export of advanced semiconductor technologies and equipment to China, impacting Japanese companies that rely on American technology and components. These controls disrupt global supply chains and create uncertainty for Japanese firms engaged in semiconductor manufacturing and R&D. The restrictions have particularly affected Japanese companies involved in joint ventures or collaborations with U.S. firms, limiting their access to cutting-edge technologies and market opportunities. Additionally, the constraints on exporting semiconductor equipment and materials have forced Japanese firms to seek alternative suppliers and adapt their strategies, often resulting in increased costs and operational complexities 34. The overall impact is a more challenging business environment, with potential delays in product development and increased difficulty in maintaining competitiveness in the global semiconductor market.

As previously mentioned, there seems to be a gap between the Japanese government and the private sector. Japan's push for de-risking from China, as well as the U.S./China trade war, have put Japanese companies in a difficult position due to their deep economic ties with China. Many Japanese firms rely heavily on the Chinese market for a substantial portion of their sales and the restrictions from both the U.S. and Japan have led to disruption in their operations such as revenue losses and strained relations with Chinese customers, like the American counterparts. While there is dialogue between the two countries on how to reduce the

impact of export controls on businesses from both sides, Japanese companies are still facing increased compliance costs as they navigate the complex regulatory environment imposed by U.S. controls.[4]

TSMC in Japan and U.S. Involvement

The U.S. involvement in the TSMC and Japan Semiconductor Venture project primarily stems from its strategic interest in bolstering semiconductor supply chains and enhancing its own technological edge in the industry 44. Although TSMC is a Taiwanese company, the U.S. plays a significant role in the project through several channels. The U.S. provides crucial technological support and expertise through American firms supplying advanced semiconductor equipment and technology that are integral to TSMC's manufacturing processes. By participating in the venture, the U.S. helps elevate the project's capabilities to achieve its goal of diversifying.

The project represents a strategic partnership that aligns with both U.S. and Japan's geopolitical and economic interests. The U.S. is keen on reducing its reliance on Taiwan for semiconductor supply and diversifying sources to mitigate risks associated with geopolitical tensions. By collaborating with Japan and leveraging TSMC's expertise, the U.S. aims to strengthen its position in the global semiconductor market. While Taiwan, where TSMC is headquartered, remains a crucial player in the global semiconductor industry, the U.S. is actively looking to diversify its sources to other allies in the region and reduce over-reliance on any single country due to economic and national security concerns.

Taiwan's geopolitical vulnerability—given its proximity to China and the ongoing tensions between China and Taiwan—presents risks to supply chains globally. To address this, the U.S. is strengthening its strategic partnership with Japan, leveraging Japan's advanced technological capabilities and relatively stable geopolitical position compared to Taiwan. Japan, with its own semiconductor manufacturing expertise and growing investment in the sector, offers a more secure and stable alternative. The partnership also allows the U.S. to tap into Japan's expertise in certain semiconductor technologies and manufacturing processes, complementing TSMC's strengths. By collaborating with Japan, the U.S. aims to achieve a more resilient semiconductor supply chain that is less susceptible to disruptions from geopolitical conflicts, simultaneously achieving its goal and Japan's goal of de-risking from China.[46]

How Japan is Navigating the U.S.-China Trade War and its Impact on U.S.-Japan Relations

To avoid being drawn into the trade disputes between the United States and China, Japan's strategy includes several key elements:

1. **Balanced Engagement with Major Powers**: Japan seeks to engage with both the U.S. and China in a manner that allows it to benefit from their technological advancements and market opportunities without being overly reliant on either. For instance, Japan is collaborating with U.S. firms like IBM and participating in U.S.-led initiatives such as the Fab 4 semiconductor alliance, while also maintaining its trade relations with China.

2. **Strategic Diversification:** Japan is diversifying its semiconductor industry investments and partnerships to avoid becoming overly dependent on any single country. By establishing new manufacturing bases and pursuing joint ventures with various international partners, including Taiwan's TSMC, Japan is spreading its risk and ensuring that its semiconductor supply chain is resilient and not subject to the fluctuations of any one geopolitical conflict.[30] Japan is also weary of heavily meshing with the United States as that presents its own set of issues.

3. **Economic Security Legislation:** Japan's enactment of the Economic Security Promotion Act (ESPA) reflects its commitment to integrating economic security considerations into its industrial policies. This legislation encourages Japanese companies to assess economic security in their decision-making, thereby enabling Japan to safeguard its interests without getting ensnared in the broader trade wars.

4. **Domestic Capability Building**: Japan is also investing heavily in domestic semiconductor capabilities, such as the Rapidus initiative, to develop cutting-edge 2 nm technology. By building its own advanced manufacturing infrastructure, Japan aims to reduce its vulnerability to external pressures and maintain greater control over its semiconductor supply chain.[16]

Japan's approach to its semiconductor strategy reflects a cautious stance regarding its trust in U.S. foreign policies. It reveals Japan's reduced confidence in the stability and predictability of U.S. policies, particularly considering recent geopolitical tensions and trade disputes.

Implication for U.S.-Japan Partnership

The differing approaches of the CHIPS Act and the ESPA act have significant implications for the U.S.-Japan semiconductor partnership. On one hand, both countries are working toward common goals of enhancing semiconductor resilience and technological advancement, leading to increased collaboration on projects like Rapidus and joint R&D initiatives. The shared focus on strengthening supply chains and reducing reliance on single sources, such as China, underscores a mutual interest in securing semiconductor supply chains.

On the other hand, the emphasis on domestic priorities and competition in both policies can create tensions. Japan's push for international partnerships under the ESPA act, coupled with the U.S. focus on bolstering its own semiconductor sector through the CHIPS Act, might lead to competing interests and divergent priorities. The U.S. may view Japan's collaborations with other international players as both a complement to and a potential challenge to its own strategic goals. Thus, while the policies encourage cooperation and joint ventures, they also highlight the complexities and competitive dynamics inherent in the global semiconductor landscape. The success of the U.S.-Japan partnership will depend on balancing these interests and navigating the evolving geopolitical and economic environment.

Conclusion and Discussion

Japan, with its advanced technologic capabilities and strategic position overall, represents a critical partner that the U.S. has not fully leveraged. The push for Japan to decouple from China overlooks the complexities of Japan's economic dependencies and pressures Japan to a path that could severely harm its economy. The U.S. would benefit from further developing its relationship with Japan and recognizing the potential Japan has for playing a role akin to Taiwan's in the global semiconductor supply chain. By supporting Japan's semiconductor development, the U.S. could foster a more resilient and mutually beneficial alliance that also ensures a stable and secure semiconductor supply chain in the face of rising geopolitical challenges.

The United States' unilateral export controls have shown to have their pros and cons. While achieving its goal of curbing China's technological advancements, there have been concerns about their long-term efficacy and impact. The absence of comprehensive data on the long-term effect of these controls makes it difficult to fully assess their consequences on the global and domestic semiconductor industry. The U.S. would benefit from gathering data to understand the real-world implications on both domestic and international front. One important conclusion can be made on the impact of the export controls, the U.S. needs to repair its reputation among its allies by acknowledging their strategic realities. The U.S.'s recent unilateral approach undermines the collective strength needed in the region to counterbalance China's influence and power.

Endnotes

1 24 March 1988 Japan - Trade in Semi-conductors. https://www.wto.org/english/tratop_e/dispu_e/gatt_e/87semcdr.pdf.

2 Allen, Gregory C., Justin Feng. "The Costs of U.S.-China Semiconductor Decoupling." https://www.csis.org/blogs/new-perspectives-asia/costs-us-china-semiconductor-decoupling

3 Allen, Gregory C. "CSIS Translation: Updated Japanese Export Controls on High-Performance Semiconductor Manufacturing Equipment." CSIS. https://www.csis.org/analysis/csis-translation-updated-japanese-export-controls-high-performance-semiconductor.

4 Allen, Gregory C., and Emily Benson. "Clues to the U.S.-Dutch-Japanese Semiconductor Export Controls Deal Are Hiding in Plain Sight." CSIS. https://www.csis.org/analysis/clues-us-dutch-japanese-semiconductor-export-controls-deal-are-hiding-plain-sight.

5 Allen, Gregory C., Emily Benson, and Margot Putnam. "Japan and the Netherlands Announce Plans for New Export Controls on Semiconductor Equipment." CSIS. https://www.csis.org/analysis/japan-and-netherlands-announce-plans-new-export-controls-semiconductor-equipment.

6 Andrew Yeo, Kristin Vekasi, Mireya Solís, Adam P. Liff, Bonnie S. Glaser Ryan Hass, Jude Blanchette Caitlin Welsh, Yingyi Ma, and Cameron F. Kerry. "The Renaissance of the Japanese Semiconductor Industry." Brookings, July 7, 2023. https://www.brookings.edu/articles/the-renaissance-of-the-japanese-semiconductor-industry/.

6 BIPR. https://bipr.jhu.edu/BlogArticles/32-Sino-Japanese-Tensions-Will-Escalate-in-the-East-China-Sea.cfm.

7 "Bolstering and Securing Semiconductor Supply Chains." Bolstering and Securing Semiconductor Supply Chains | The National Bureau of Asian Research (NBR). https://www.nbr.org/publication/bolstering-and-securing-semiconductor-supply-chains/.

8 "Carrying the Torch of Free Trade in the Indo-Pacific Japan's Challenging Role." Carrying the Torch of Free Trade in the Indo-Pacific: Japan's Challenging Role | The National Bureau

9 "The Committee on Foreign Investment in the United States (CFIUS)." U.S. Department of the Treasury, July 19, 2024. https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius. Japan Studies Research Fellowship Aden 26

10 "Economic Statecraft: The Use of Economic Power by a Nation to Pursue Its Strategic Policy Goals for National Security." The Japan Institute of International Affairs. https://www.jiia.or.jp/en/ajissōcommentary/economic-statecraft-the-use-of-economic-power-by-a-nation-to-pursue-its-strategic-policy-goals-for-national-security.html.

11 "The Federal Register." Federal Register :: Request Access. https://www.ecfr.gov/current/title-15/subtitle-B/chapter-VII/subchapter-C/part-744/appendix-Supplement%20No.%204%20to%20Part%20744.

12 Foster, Scott. "US, Japan Reaching for a 2-NM Chip Breakthrough." Asia Times, August 9, 2022. https://asiatimes.com/2022/08/us-japan-reaching-for-a-2-nm-chip-breakthrough/.

13 Furse, Thomas. "Forward to the 1980s: US Strategic Trade in the World Order - International Politics." SpringerLink, June 17, 2021. https://link.springer.com/article/10.1057/s41311-021-00319-y.

14 Gupta, Kirti, Chris Borges, and Andrea Leonard Palazzi. "Collateral Damage: The Domestic Impact of U.S. Semiconductor Export Controls." CSIS. https://www.csis.org/analysis/collateral-damage-domestic-impact-us-semiconductor-export-controls.

15 "How Japan Strengthened Its Rare Earth Minerals Supply Chain ." World Economic Forum. https://www.weforum.org/agenda/2023/10/japan-rare-earth-minerals/.

16 "How Japan's Semiconductor Industry Is Moving into the Future." World Economic Forum. https://www.weforum.org/agenda/2023/11/how-japan-s-semiconductor-industry-is-leaping-into-the-future/.

17 "IBM and Rapidus Form Strategic Partnership to Build Advanced Semiconductor Technology and Ecosystem in Japan." IBM Newsroom. https://newsroom.ibm.com/2022-12-12-IBM-and-Rapidus-Form-Strategic-Partnership-to-Build-Advanced-Semiconductor-Technology-and-Ecosystem-in-Japan.

18 "IBM and Rapidus Expand Collaboration to Chip-

18 "IBM and Rapidus Expand Collaboration to Chiplet Packaging Technology for 2nm-Generation Semiconductors." IBM Newsroom. https://newsroom.ibm.com/2024-06-03-Rapidus-and-IBM-Expand-Collaboration-to-Chiplet-Packaging-Technology-for-2nm-Generation-Semiconductors.

19 Ikenson, Daniel J. "Tariffs by Fiat: The Widening Chasm between U.S. Antidumping Policy and the Rule of Law." Cato.org. https://www.cato.org/policy-analysis/tariffs-fiat-widening-chasm-between-us-antidumping-policy-rule-law.

20 Irwin, Douglas A. The U.S.-Japan Semiconductor Trade Conflict. https://www.nber.org/system/files/chapters/c8717/c8717.pdf.

21 "Japan's Economic Security and Semiconductor Industry." The Japan Institute of International Affairs. https://www.jiia.or.jp/en/ajissōcommentary/japans-economic-security-and-semiconductor-industry.html.

22 "Joint Statement of the 2023 U.S.–Japan Security Consultative Committee ('2+2')." U.S. Department of Defense. https://www.defense.gov/News/Releases/Release/Article/3265559/joint-statement-of-the-2023-usjapan-security-consultative-committee-22/.

23 Kazuto, SUZUKI. "Semiconductor Agreement at Japan-US Summit." – The Diplomat, May 29, 2024. https://thediplomat.com/2024/05/semiconductor-agreement-at-japan-u-s-summit/.

24 "Key Differences Remain between U.S. and Japanese Advanced Semiconductor Export Controls on China: Perspectives on Innovation." CSIS. https://www.csis.org/blogs/perspectives-innovation/key-differences-remain-between-us-and-japanese-advanced-semiconductor.

25 Magunna, Aaron, Hugh White, Elliott Zaagman, and Kazimier Lim. "Why Japan's De-risking Response to China Is Incoherent." Lowy Institute, June 26, 2017. https://www.lowyinstitute.org/the-interpreter/why-japan-s-de-risking-response-china-incoherent.

26 Reshoring from China: Comparing the economic statecraft ...https://www.tandfonline.com/doi/full/10.1080/09512748.2023.2200025.

27 "Resilience, Not Decoupling: Critical Supply Chains in China-Japan Relations." Institut Montaigne. https://www.institutmontaigne.org/en/expressions/resilience-not-decoupling-critical-supply-chains-china-japan-relations.

28 Richman, Sheldon L. "Cato Institute Policy Analysis No. 107: The Reagan Record on Trade: Rhetoric vs. Reality." Cato.org. https://www.cato.org/publications/policy-analysis/reagan-record-trade-rhetoric-vs-reality.

29 Robin Brooks, Peter R. Orszag, Tom Wheeler, and Robin Brooks. "American Economic Statecraft in the Asian Century." Brookings, February 22, 2024. https://www.brookings.edu/articles/american-economic-statecraft-in-the-asian-century/.

30 Ryall, Julian. "Japan's Semiconductor Sector: What's behind the Chip Reboot? – DW –04/29/2024." dw.com, April 30, 2024. https://www.dw.com/en/japans-semiconductor-sector-whats-behind-the-chip-reboot/a-68947295.

31 "Saori N. Katada's Japan's New Regional Reality: Geoeconomic Strategy in the Asia-Pacific." Saori N. Katada's Japan's New Regional Reality: Geoeconomic Strategy in the Asia-Pacific | The National Bureau of Asian Research (NBR). https://www.nbr.org/publication/saori-n-katadas-japans-new-regional-reality-geoeconomic-strategy-in-the-asia-pacific/.

32 Sbryant. "United States–China Semiconductor Standoff: A Supply Chain under Stress." Atlantic Council, March 23, 2023. https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/united-states-china-semiconductor-standoff-a-supply-chain-under-stress/.

33 "Security Export Control in Japan." 安全保障貿易管理**Export Control*EnglishPage. https://www.meti.go.jp/policy/anpo/securityexportcontrol1.html.

34 Shivakumar, Sujai, Charles Wessner, and Thomas Howell. "A Seismic Shift: The New U.S. Semiconductor Export Controls and the Implications for U.S. Firms, Allies, and the Innovation Ecosystem." CSIS. https://www.csis.org/analysis/seismic-shift-new-us-semiconductor-export-controls-and-implications-us-firms-allies-and.

35 Shivakumar, Sujai, Charles Wessner, and Thomas Howell. "Balancing the Ledger: Export Controls on U.S. Chip Technology to China." CSIS. https://www.csis.org/analysis/balancing-ledger-export-controls-us-chip-technology-china.

36 Shivakumar, Sujai, Charles Wessner, and Thomas Howell. "Japan Seeks to Revitalize Its Semiconductor Industry." CSIS. https://www.csis.org/analysis/japan-seeks-revitalize-its-semiconductor-industry.

39 "Staff Reports." FEDERAL RESERVE BANK of NEW YORK - Serving the Second District
and the Nation - FEDERAL RESERVE BANK of NEW YORK. https://www.newyorkfed.org/research/staff_reports/sr1096.

40 "Strategic Misalignments: Rethinking US Tactics in the Semiconductor Arena < Sasakawa USA." Sasakawa USA, May 8, 2024. https://spfusa.org/publications/strategic-misalignments-rethinking-us-tactics-in-the-semiconductor-arena/.

41 "The Success or Failure of Its Semiconductor Strategy Will Determine the Future of the
nation My Vision papers Nira." NIRA. https://english.nira.or.jp/papers/my_vision/2023/12/the-success-or-failure-of-its-semiconductor-strategy-will-determine-the-future-of-the-nation.html.

42 Swanson, Ana. "Trump Gives Farmers $16 Billion in Aid amid Prolonged China Trade War." The New York Times, May 23, 2019. https://www.nytimes.com/2019/05/23/us/politics/farm-aid-package.html.

43 Swanson, Ana. "Trump's Trade War with China Is Officially Underway." The New York Times, July 5, 2018. https://www.nytimes.com/2018/07/05/business/china-us-trade-war-trump-tariffs.html.

44 A tale of two chip plants: Delayed in U.S., on time in Japan. https://www.wsj.com/tech/a-tale-of-two-chip-plants-delayed-in-u-s-on-time-in-japan-49374f30.

45 "Tariff Tracker: Tracking the Economic Impact of Tariffs." Tax Foundation, July 16, 2024. https://taxfoundation.org/research/all/federal/trump-tariffs-biden-tariffs/.

46 Team, Editorial. "How TSMC Triumphed in Japan and Found Hurdles in US in Global Expansion." techovedas, February 6, 2024. https://techovedas.com/tsmcs-japan-triumph-and-us-hurdles-in-semiconductor-chipmaking/.

47 Text - H.R.5040 - 115th congress (2017-2018): Export control reform act of 2018 | congress.gov | library of Congress. https://www.congress.gov/bill/115th-congress/house-bill/5040/text.

48 Text - H.R.5841 - 115th congress (2017-2018): Foreign Investment Risk Review Modernization Act of 2018 | congress.gov | library of Congress. https://www.congress.gov/bill/115th-congress/house-bill/5841/text.

49 Times, Global. "Japan's Proposed Export Controls on Semiconductors to Disrupt Supply Chain, Undermine Economic Order." Global Times. https://www.globaltimes.cn/page/202304/1289973.html.

50 U.S. Department of State. https://www.state.gov/reports/2023-investment-climate-statements/japan/#:~:text=Policies%20Towards%20Foreign%20Direct%20Investment,-Inward%20FDI%20has&text=The%20legislation%20became%20effective%20in,risks%20o%20Japanese%20national%20security.

51 U.S. Department of State. https://www.state.gov/reports/2023-investment-climate-statements/japan/#:~:text=Upon%2C%20Foreign%20Investment-,Policies%20Towards%20Foreign%20Direct%20Investment,report%20to%20the%20relevant%20ministries.

52 U.S.–Japan Trade conflicts: Semiconductors and super 301. https://www.press.umich.edu/pdf/0472113585-ch5.pdf.

53 US-Japan-China trilateral relations: How their dynamics will shape Asia Pacific | Asia Global
Institute. https://www.asiaglobalinstitute.hku.hk/research-paper/us-japan-china-trilateral-relations-how-their-dynamics-will-shape-asia-pacific.

54 US-led effort to diversify Indo-Pacific supply chains away from China runs counter to trends |
piie. https://www.piie.com/blogs/realtime-economics/us-led-effort-diversify-indo-pacific-supply-chains-away-china-runs-counter.

55 Vekasi, Kristin. "Japan's Approach to Economic Security and Regional Integration." Japan's Approach to Economic Security and Regional Integration | The National Bureau of Asian Research (NBR). https://www.nbr.org/publication/japans-approach-to-economic-security-and-regional-integration/.

56 "What Is the US-China Trade War?" South China Morning Post, May 28, 2021. https://www.scmp.com/economy/china-economy/article/3078745/what-us-china-trade-war-how-it-started-and-what-inside-phase.

57 "Why US Semiconductor Export Controls Backfire." – The Diplomat.

57 "Why US Semiconductor Export Controls Backfire." – The Diplomat. https://thediplomat.com/2024/05/why-us-semiconductor-export-controls-backfire/.

58 "[News] Strengthening Controls on Semiconductor Equipment Exports to China, Japan Reportedly Tightens Export Control Measures Further." TrendForce Insights. https://www.trendforce.com/news/2024/04/29/news-strengthening-controls-on-semiconductor-equipment-exports-to-china-japan-reportedly-tightens-export-control-measures-further/#:~:text=In%20fact%2C%20in%202023%2C%20Japan,to%20crucial%20semiconductor%20fabrication%2

Bibiliography

Building resilient critical mineral supply chains lessons from Japan and South Korea. Building Resilient Critical Mineral Supply Chains: Lessons from Japan and South Korea | The National Bureau of Asian Research (NBR). (n.d.). https://www.nbr.org/publication/building-resilient-critical-mineral-supply-chains-lessons-from-japan-and-south-korea/

Building supply chain resiliency in the Indo-Pacific. Building Supply Chain Resiliency in the
Indo-Pacific | The National Bureau of Asian Research (NBR). (n.d.). https://www.nbr.org/publication/building-supply-chain-resiliency-in-the-indo-pacific/

Thin ice: US pathways to regulating China-sourced legacy chips. – Rhodium Group. (2024, March 5). https://rhg.com/research/thin-ice-us-pathways-to-regulating-china-sourced-legacy-chips/

Triolo, P. (2024, February 23). A new era for the Chinese Semiconductor Industry: Beijing responds to export controls. American Affairs Journal. https://americanaffairsjournal.org/2024/02/a-new-era-for-the-chinese-semiconductor-industry-beijing-responds-to-export-controls/

Legacy chip overcapacity in China: Myth and reality: Trustee China hand. CSIS. (n.d.). https://www.csis.org/blogs/trustee-china-hand/legacy-chip-overcapacity-china-myth-and-reality

Triolo, P. (n.d.). China's semiconductor industry advances despite U.S. export controls. CSIS. https://www.csis.org/analysis/chinas-semiconductor-industry-advances-despite-us-export-controls

Japan Ministry of Foreign Affairs. (2022b, December). National Security Strategy of Japan. https://www.cas.go.jp/jp/siryou/221216anzenhoshou/nss-e.pdf

Matamis, J. (2024, April 15). Japan's strategic future and implications for the US-japan alliance • stimson center. Stimson Center. https://www.stimson.org/2024/japans-strategic-future-and-implications-for-the-us-japan-alliance/

U.S. engagement in the Indo-Pacific: Don't Trade Away Trade. Carnegie China. (n.d.). https://carnegieendowment.org/research/2024/06/us-engagement-in-the-indo-pacific-dont-trade-away-trade?lang=en&center=china

U.S. engagement in the Indo-Pacific: Don't Trade Away Trade. Carnegie China. (n.d.). https://carnegieendowment.org/research/2024/06/us-engagement-in-the-indo-pacific-dont-trade-away-trade?lang=en&center=china

Guillermo. (2024, June 25). U.S.-Japan-Taiwan dialogue: Deterrence, defense, and trilateral cooperation. Foreign Policy Research Institute. https://www.fpri.org/article/2022/12/u-s-japan-taiwan-dialogue-deterrence-defense-and-trilateral-cooperation/Jetro Global Trade and Investment Report 2023. https://www.jetro.go.jp/ext_images/en/reports/white_paper/trade_invest_2023_rev2.pdf.

Rosenberg, Don, and Edlyn V Levine. Silicon Triangle: The U.S., Taiwan, China, and Global Semiconductor Sector, July 18, 2023. https://www.hoover.org/sites/default/files/research/docs/SiliconTriangle_Chapter-4pdf_230828.pdf.

"Carrying the Torch of Free Trade in the Indo-Pacific Japan's Challenging Role." Carrying the Torch of Free Trade in the Indo-Pacific: Japan's Challenging Role | The National Bureau of Asian Research (NBR). https://www.nbr.org/publication/carrying-the-torch-of-free-trade-in-the-indo-pacific-japans-challenging-role/.

"Saori N. Katada's Japan's New Regional Reality: Geoeconomic Strategy in the Asia-Pacific." Saori N. Katada's Japan's New Regional Reality: Geoeconomic Strategy in the Asia-
Pacific | The National Bureau of Asian Research (NBR).
https://www.nbr.org/publication/saori-n-katadas-japans-new-regional-reality-geoeconomic-strategy-in-the-asia-pacific/.

"Japan's Economic Security and Semiconductor Industry." The Japan Institute of International Affairs.https://www.jiia.or.jp/en/ajiss_commentary/japans-economic-security-and-semiconductor-industry.html.

Robin Brooks, Peter R. Orszag, Tom Wheeler, and Robin Brooks. "American Economic Statecraft in the Asian Century." Brookings, February 22, 2024. https://www.brookings.edu/articles/american-economic-statecraft-in-the-asian-century/.

"Economic Statecraft: The Use of Economic Power by a Nation to Pursue Its Strategic Policy Goals for National Security." The Japan Institute of International Affairs. https://www.jiia.or.jp/en/ajiss_commentary/economic-statecraft-the-use-of-economic-power-by-a-nation-to-pursue-its-strategic-policy-goals-for-national-security.html.

Reshoring from China: Comparing the economic statecraft ...https://www.tandfonline.com/doi/full/10.1080/09512748.2023.2200025.

Rule of Law in the Party-State: Examining Cause Lawyering in post-1989 People's Republic of China

Adriana Amanti

How does the Chinese "rule of law" accommodate for cause lawyering and to what extent is cause (rights defense) lawyering effective within the constraints of the party-state of the People's Republic of China? Amidst intensified pressure on "rights defense" (*weiquan*) lawyers in the People's Republic of China (PRC), Chinese authoritarian legalism has contributed to potent rights claims in the Chinese party-state. Despite sentiments that Western liberal-democratic constitutional systems are more appropriate frameworks for individual rights claiming, *weiquan* lawyers in the PRC have realized gains for their clients while also adhering to the Chinese Communist Party's (hereafter "the CCP" or "the Party") legal culture. Rights defense lawyers, often working independently, must navigate state-dominated channels and operate within the margins of the Chinese party-state's legal institutions, constraining opportunities for effective rights litigation. Protracted regime insecurity, sparked by widespread student protests in 1989 that precipitated international condemnation and demands for China's democratization, prompted the Party to legislate a series of administrative reforms in the 1990s.

The systematic expansion of legal knowledge positioned emerging cause lawyers to contest misconduct within Party limits, catalyzing the rise of the *weiquan* movement in the 2000s. The beginning of the *weiquan* (维权) lawyer, which translates to "right-protection, rights-defense, rights activist, human rights, civil rights, cause, and public interest" can be traced to the mid-2000s (Michelson 2020, p. 354). *weiquan* lawyers are "adherents to political liberalism [and] attach importance to a modern state, the rule of law, basic legal freedoms, and civil society" (Michelson 2020, p. 355). They "accept the legitimacy of the existing political system and seek to protect and improve the rights of citizens within the constitutional constraints and legal framework of the PRC" (Fu and Cullen 2008, p. 112). Rather than being deterred from Party guardrails, *weiquan* lawyers are empowered by the PRC's endorsement of the rule of law and diffusion of legal information. The dichotomy of the CCP's law dissemination initiatives and the increasing use of legal aid against the government by *weiquan* lawyers has given rise to a complex, adversarial relationship between rights defense lawyers and Party organs.

This paper will explore China's mode of authoritarian legality on rights litigation through an examination of the concept of the rule of law in China, its lasting implications on rights consciousness, and the emergence and development of *weiquan* lawyering under the party-state. This paper will critically examine the evolution of *weiquan* lawyers and their legal challenges to administrative misconduct following the 1989 student protests in China. Prior to the early 1990s, legal representation for the accused was minimal and subordinate to the state. Defense lawyers in the 1979 trial of the Gang of Four aligned with the prosecution and offered a lackluster, if not virtually nonexistent defense; it was not until the Tiananmen dissidents' trials that serious legal representation "became a legal possibility" (Fu and Cullen 2008, p. 121). The evaluation of the emergence and mobilization of *weiquan* lawyers would be incomplete without this historical narrative.

This paper relies on authors who specialize in authoritarian legality and are familiar with how the rule of law in China operates. These include, but are not limited to Dr. Susan Whiting, Hualing Fu and Richard Cullen, Randall Peerenboom, Taisu Zhang & Tom Ginsburg, and Dr. Cho Young Nam. In its exploration of Chinese legalism, the first section will draw upon Peerenboom's "thin-versus-thick" explanation of "rule of law" in China. The third section will develop arguments for how the CCP's administrative reforms and expansion of legal knowledge in the post-1989 era have sanctioned rights litigation under the regime's "rule of law" framework. The fourth section will provide further context regarding the background and strategies of *weiquan* lawyers within the confines of the party-state, the obstacles they face, and the outlook of the *weiquan* movement. The fifth and final section will acknowledge gaps in the literature and consider the implications of the findings.

Rule of Law in China

Before I investigate the literature on authoritarian legalism in China, it is important to understand what "rule of law" means in the context of this paper and the conception of rights in China that influence rights-claiming procedures. Individual rights in China carry a different meaning than in the West and cognizance of these differences is a prerequisite for further analysis of the development of China's

"rule of law." It's important to note that Chinese legalism, at its core, is not antithetical to rights consciousness. Western questioning of an alleged moral vacuum in writings on contentious politics in China dismisses the legitimacy of the progress of bottom-up rights claiming as well as the limited adjustments the CCP has made to its legal system in response to rights claiming. In bottom-up rights claiming, "private parties and other informal or unofficial lawmaking communities" rather than the government drive the charge for legal reform (Levitt 2008, p. 50). A 'bottom-up' paradigm to rule of law systems "creates expectations between governing and governed" (Fortin 2021), a standard associated with Chinese statecraft.

Confucian foundations in Chinese legalism impose an inalienable obligation upon the state to fulfill the collective expectations of its subjects. Liang Qichao, a traditional Confucian proponent of rights consciousness, resolved rights consciousness as an ethical responsibility toward the collective good rather than a protection of individual freedoms (Perry 2008). Confucian principles of a moral economy prioritize a proactive role of the government in protecting and promoting the people's livelihood (Perry 2008). The provisions of China's 1995 Labor Law were designed to facilitate state goals of protecting the legitimate rights and interests of laborers, which aligned with Marxism-Leninism's emphasis on economic dynamism and state-orchestrated improvements in the livelihoods of the peasantry (Perry 2008). The Chinese state diligently encourages a conceptual linkage between "livelihood" and rights" (Perry 2008). This orthodox depiction of the Chinese government and its party-state cadres as paternalistic guarantors of collective claims to just livelihoods embeds itself in the institutionalization of the PRC's legal framework.

In his essay on Chinese legal doctrine, Randall Peerenboom proposes two interpretations of the rule of law: thick and thin (Peerenboom p. 2). A "thin" rule of law includes the features that any legal system must possess to function effectively as a system of jurisprudence, "regardless of whether the legal system is part of a democratic or non-democratic society, capitalist, liberal or theocratic." A "thick" conception of rule of law incorporates "elements of political morality, such as particular economic arrangements" or "conceptions of human rights" (Peerenboom pp. 2-4). Thin rule of law is a minimalist version that includes the basic political conditions to operate and maintain a legal system and does not preclude the content and quality of its norms (Burnay 2018). As a one-party, socialist state, China's conception of rule of law does not align with the thick categorization (Al Saud & Salman 2012). Between 1989 and 2003, the Chinese government passed numerous laws to create what appeared to abide by Peerenboom's thin version of rule of law (Al Saud & Salman 2012). Authoritarian principles within the Chinese government have fueled discourse over whether China can be considered a "rule of law" system. Many of the Party's powers and actions "lack a clear legal basis" and sometimes are "at odds with the law" (Peerenboom p. 112). The "modern conception of rule of law is integrally related to the rise of liberal democracy" and for many, means "some form of a liberal democratic version of rule of law" (Peerenboom p. 4). Theories on the functionality of Chinese rule of law should not assume a liberal democratic framework and should be consistent with China's salient circumstances and other contingent factors, such as ideology and the current state of legal and political institutional developments. (Peerenboom 2003).

Peerenboom describes the Chinese party-state as an alliance with statist socialism; a non-democratic system in which the Party plays a leading role (Peerenboom pp. 109-112). The party-state does not operate on and actively opposes Western liberal-democratic constitutionalism. Assumptions that the Party's statist socialist configuration does not allow for legal reform, however, are erroneous. The PRC has agreed with the United States on a wide range of reforms to improve the PRC's legal system, "notwithstanding the U.S. liberal democratic conception of rule of law and the Chinese government's statist socialist conception" (Peerenboom p. 7). China's commitment to legal reform signals a positive trend in the development of the rule of law. Rule of law limits the arbitrary acts of government, which has been one of the biggest sources of instability in the Party itself and regularizes central-local relations (Peerenboom p. 121-122). Regulating arbitrary practices from local cadres became a driving force in state agencies promoting legal consciousness among the populace, contributing to regime legitimacy and a transformed legal structure for rights activist lawyers to mobilize.

Legal Consciousness and Regime Legitimacy

The CCP's Marxist-Leninist ideology permeates China's legal and political institutions. Marxism-Leninism's "social transformation" dogma constitutes the mass appeal of the CCP, providing peasants with strategies for survival and moderating radical policies to broaden its appeal to the public (Whiting 2024). Government performance is measured by attaining socioeconomic security (Whiting 2017). The Party uses the promotion of legal consciousness to demonstrate its commitment to social transformation, which is used to measure trust in the government and is symptomatic of regime legitimacy. The PRC's law dissemination campaign, which started in the early 1980s, became a "political reform policy that shifted the mode of nation-

-al governance from the rule of person to the rule of law" (Cho 2014, p. 30). The state-guided dissemination of legal knowledge is a core component of China's thin "rule of law" framework. These state-sponsored campaigns started as effective measures to cope with the misconduct of party-state cadres and to protect legitimate rights and interests (Cho 2014, p. 29). The PRC has "taken the initiative in developing a legal system and the rule of law policy" (Cho 2014, p. 40). Dr. Cho presents the 15th Party Congress in 1997 and the Fourth Plenum of the 18th Central Committee of the CCP in 2014 as examples of the PRC's initiative (Cho 2014, p. 40). Both events determined the rule of law policy as a ruling principle (Cho 2014, p. 40).

Regime insecurity can trigger a defensive hardening of the state, which can manifest itself in authoritarian legality. State-constructed legal consciousness enhances regime security (Whiting 2017). Dr. Whiting's study, which identifies links between state-constructed legal consciousness and regime legitimacy using media campaigns, revealed that learning about state-provided legal aid significantly enhanced trust in the government (Whiting 2017). She found that awareness and knowledge of legal aid are fundamental to the construction of rule of law by bringing more civil disputes into the legal framework. In return, trust in the government was significantly enhanced (Whiting 2017). Dr. Cho corroborates these findings by elucidating that the "rapid increase in lawsuits since the mid-1980s confirms that taking legal action to deal with disputes has become a universal mode of action for Chinese citizens" (Cho 2014, p. 37). The party-state "invests in the normal legal system to enhance its legitimacy" (Fu and Dowdle 2020, pp. 63-64 as cited in Whiting 2023, p. 370). Law dissemination campaigns in China emphasized establishing and disseminating "easily-accessible legal aid systems so that ordinary citizens can protect their legitimate rights and interests by using the law as a weapon" (Cho 2014, p. 34). Protection against arbitrary rulings of regional government cadres can be considered codified into Chinese "rule of law," so long as it follows Maoist norms of socioeconomic security and gradual improvements in the standard of living.

In their investigation of Chinese legal structures, Zhang & Ginsburg contribute to ongoing debates on China's acclimation to and capacity-building for rule of law. Zhang and Ginsburg recognize that the Party consolidates its regime by harnessing the organizational and legitimizing capacities of law (Zhang & Ginsburg 2019, p. 310, as cited in Whiting 2023, p. 361), but argue that the current literature, driven by the harsh reaction of the regime towards the *weiquan* movement, portrays China's judicial system as "weak and politicized despite some efforts to change it" (Zhang & Ginsburg 2019, p. 319). Zhang & Ginsburg call into question conventional depictions of China's legal system as purely rhetorical and insufficient for rights claiming. They reject the impressions of China as "turning against law" and claim that the Party leadership "places greater emphasis…on legality than ever before" (p. 323). Zhang & Ginsburg (2019) trace the Chinese population's attachment of sociopolitical legitimacy to law and legality to the PRC's empowerment of legal institutions, which has reaped the benefit of political legitimacy for the government. The legal structures of China, including their effectiveness and credibility, are proportional to regime stability.

Weiquan Lawyers

Background

Rights defense lawyers generally abide by the basic constitutional system of their respective countries, although protections entrenched in liberal-democratic systems differentiate public interest lawyers in liberal democracies from Chinese *weiquan* lawyers, who are not afforded those same privileges (Fu and Cullen 2008, p. 112). *weiquan* lawyering is made feasible because "the government is increasingly relying on the law to alleviate its legitimacy crisis" – in the decade after the events of Tiananmen Square in 1989, the government enacted a "series of laws creating important legal rights for citizens and limiting the power of government authorities" (Fu & Cullen 2008, p. 123). Subsequent global isolation and economic fallout from Tiananmen Square jeopardized the PRC's ambition of state revival and accession to international organizations, aided by the nascent U.S.-China rapprochement in the 1970s. To rectify demands for democratization without conceding authoritarian control, the CCP promoted "administration according to law" throughout the 1990s (Fu 2010, p. 5). The National People's Congress passed several initiatives, such as the 1989 Administrative Litigation Law, to outline mechanisms for accountability and redress and codify legal procedures (Fu 2010). *weiquan* lawyering was further made possible by the 1996 PRC Lawyers Law, which privatized the legal profession and facilitated the conversion of the legal status of lawyers from state legal workers to independent, professional lawyers (Chia 2018). The legal effort for constitutional review in the 2003 case of Sun Zhigang (孙志刚), a migrant worker whose detention and wrongful death were argued to be unconstitutional, is considered the beginning of the rights protection movement (Whiting 2023, p. 364). The party-state "faced a high degree of institutionalization in the mobilization of lawyers in the wake of the Qingan shooting", a separate case involving a police killing in the small county of Qingan (Fu 2018, p. 556). As established earlier, *weiquan* lawyers defend constitutional rights accounted for by Chinese law and promote incre-

mental rule of law reform (David 2022). Cases regarding rights protection in China, which can have up to hundreds of plaintiffs, are referred to as "collective" and "mass" cases by state authorities and revolve around livelihood matters, such as land confiscation, layoffs from economic restructuring, non-payment of pensions and corruption from local authorities (Human Rights Watch 2006). The *weiquan* movement and its composition of legal experts, lawyers, and activists advise protestors to refrain from unlawful conduct and to operate within the rules of Chinese law (Human Rights Watch 2006). The rights protection movement in China diverges from other traditional forms of political resistance elsewhere that invoke societal disruption as a means of bringing attention to injustice. Alarming incidents, like the Sun Zhigang and Qingan cases, mobilized Chinese citizens and *weiquan* lawyers to leverage legal means and affirm the government's adaptation of "rule of law" and its commitments to the collective.

Strategies

Cause lawyers in China respond to episodic, arbitrary government behavior through legal action. Rights-protection lawyers have initiated malpractice lawsuits against government agencies, receiving prominent media coverage (Cho 2014, p. 38). Chinese media has become a close ally of *weiquan* lawyers, and *weiquan* lawyering would not be possible without the assistance of new information technologies (Al Saud & Salman 2012, p. 51). *weiquan* lawyers rely on information technology to expose deficiencies in legality and credibility in the local government. Before the 2010-2011 crackdown, *weiquan* lawyers used litigation as a part of their media and social mobilization strategy in the absence of a legal community of shared identity and objectives (Fu 2014, p. 1). The networked public sphere is "a critical site for studying legal consciousness and legality" (Lei & Zhou 2015, p. 562). Rights activist lawyers in China are active on the ACLA forum, a "web-based asynchronous threaded discussion forum" where lawyers mobilize "in support of better and more strongly enforced legal rights for themselves and their clients" (Michelson 2020, pp. 357-400).

Charles R. Epp (1998, p. 3-4) argues that the support structure for legal mobilization necessitates rights-defense lawyers. Chinese *weiquan* lawyers strategically apply the rules of the system to build foundations for a support structure of legal mobilization in the PRC. Fu and Cullen (2008, p. 116) organize *weiquan* lawyering into a pyramid divided by moderate, critical, and radical categories based on factors including case types, commitment to advancing the rule of law, and methods of legal representation. Fu and Cullen observe that critical *weiquan* lawyers are the most successful lawyers, operating near the boundary of authorized channels and relying on mobilizing support from the wider public, ultimately exploiting gaps between political and legal institutions (Fu & Cullen 2008, p. 127). Critical *weiquan* lawyers contribute to the advancement of the rule of law by demanding "the system try and live up to its rhetoric" (Fu & Cullen 2008, p. 118).

While Fu and Cullen's typology of *weiquan* lawyering is fundamental to understanding the varying degrees of radicalization in cause lawyering and their mode of operations, there have been significant changes in Party leadership and tolerance since the study's publication in 2008. Moreover, Fu and Cullen's interpretation of the motivations behind the activism of *weiquan* lawyers has been challenged by other experts in recent years, namely Michelson. Michelson (2020) subtly critiques Fu and Cullen's moderate, critical, and radical categories as a part of a "dizzying array of typologies" that fail to "disaggregate the profession as a whole" (pp. 355-356). Rather than classify Chinese lawyers by the nature and degree of their activism, Michelson suggests an empirical focus on the politically liberal fringe of Chinese lawyers.

Michelson implies that Fu and Cullen's model does not account for the activist lawyers in China who do not identify as *weiquan* or with the movement, but are still committed to working against the Party-state and supporting ideals of political liberalism (p. 355). Michelson remarks that "some *weiquan* lawyers are not even licensed lawyers, and some *weiquan* lawyers are motivated as much by fee potential as by a larger or social political cause" (Michelson 2020, pp. 355-356). In another article discussing rights defense lawyers in China, Michelson also contests the representation of the word *weiquan* and the politically contentious nomenclature of the *weiquan* movement as used by Fu and Cullen, tracing the word's origins to China's legal education campaigns. Michelson argues that initial appearances in the early 2000s of the term *weiquan* were not predominantly associated with contentious politics and its true meaning was tied to state-constructed rights consciousness (Michelson 2019, p. 74).

Challenges

Law in the PRC has become "an important aspect of state ideology and of popular consciousness" (Liebman 2009, p. 19). As a result, judicial authorities in the PRC closely monitor civil legal aid structures and direct lawyers to uphold the objectives and leadership of the Party in their work (Human Rights Watch 2008, p. 4). For state officials, supervising and injecting Party ideology into the networks where *weiquan* lawyers and their clients interact success-

fully impedes *weiquan* lawyering without drawing media attention to collective issues. Party authorities undermine popular consciousness (which differs from rights consciousness, as it relates to social and political themes rather than constitutional rights) and the *weiquan* movement's effectiveness by scaling back the mobilization potential of its legal education campaigns. Alterations to China's "socialist rule of law" education campaigns in the 2000s limited the ability of lawyers to take collective cases, vital to the enterprise of *weiquan* lawyering (Human Rights Watch, pp. 22-24). Despite enjoying rapid growth during Hu Jintao's tenure (2003-2013) and social media visibility, the *weiquan* movement found itself in a precarious position following Xi Jinping's crackdowns against cause lawyering (Lyu 2020).

Sui Muqing, a lawyer detained in the 709 crackdown, commented that the suppression of lawyers intensified around 2014 after lawyers began to take charge of rights defense movements (Congressional Executive Commission on China 2020). Compelled by Xi Jinping's crackdowns, Chinese authorities have retaliated against cause lawyers by disbarring them or suspending their licenses, depriving them of their constitutional rights and counsel, denying imprisoned lawyers access to medication and food, and in some cases even resorting to physical torture (Congressional Executive Commission on China 2020). Xi Jinping's ascent to power and consolidation of the judiciary pose a grave threat to the continuation of the *weiquan* movement.

Zhang and Liu predict that when grievances from citizens begin to undermine the Party's legitimacy, access to legal and formal institutions, and by extension, fair representation, will be cut off. Similar conclusions are shared by other scholars in the field. Fu posits that the Chinese regime will "become repressive if lawyers' legal mobilization is regarded as politically challenging and risky to the Party's legitimacy and effectiveness" (Fu 2018, p. 567). An analysis of 1.64 million administrative judicial documents between 2014 and 2020 found that the acceptance rate of cases challenging the government increased by 79% and plaintiff win rates rose to 42.2%, yet plaintiff win rates in cases discussing political rights were much, much lower -- 1.6% in free speech cases and 4.5% for cases related to anti-government demonstrations (Stanford Center on China's Economy and Institutions 2025). Yuxia Zhang and Zhuang Liu, reported that "routine" cases, involving local government services such as labor rights, real estate, public management, and traffic penalties, experienced the highest case acceptance and plaintiff win rates. On the other hand, courts were more reluctant to hear "political" cases, which concern Party decisions and the political rights of citizens (2023). In conjunction with normative hypotheses of state repression, recent empirical evidence indicates that the PRC will continue to hear cases against the government so long as they do not carry the risk of mobilizing the *weiquan* movement. Xi Jinping's reversal of his predecessors' willingness to tolerate sensitive litigation signals to rights defense lawyers that they must be cautious in their representation even in cases that are not politically contentious.

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Conclusions

There are gaps in my research that may identify areas of omission. There are varying structure-based explanations for current conceptions of Chinese rule of law that came to be, which I do not consider in their entirety in this paper. Protracted scholarly discourse over "rule of law" interpretations in China can affect the justifications of existing minimal top-down legal reform. I do not fully expound on the personal risks that *weiquan* lawyers encounter, or the ramifications to their legal careers inflicted by the government, which can alter perceptions of progress in China's

legal structure. I also do not go into systematic detail on the moderate and radical classifications of *weiquan* lawyers and their accomplishments. Xi Jinping's deepening of regime authority has drastically recalibrated the Chinese legal domain. In response, I contend that my findings during my review of the literature are sufficient to prescribe an entry-level understanding of the intersection of the rule of law and rights-claiming in the PRC.

China's administrative reforms throughout the 1990s led to legal mobilization that has enabled bottom-up rights-claiming grounded in Chinese legal culture. The legitimacy of the CCP, supported by state-provided legal aid, has been threatened by the formation of a collective identity of rights lawyers in post-1989 China, who employ strategies such as digital media to publicize cases relevant to their causes. Still, China's growing legal community authenticates cause lawyering and an evolving legal practice outside of Western liberal-democratic systems. *weiquan* lawyers concede to boundaries in China's "rule of law" and maneuver within the constitutional constraints of the party-state to reap gains, emboldened by the government's promotion of legal consciousness in the presence of diminished legitimacy.

References

Abdulaziz Al Saud, Hussa Salman. "The Weiquan Lawyers' Movement In China: Does It Have A Future?" Asia-Pacific Journal on Human Rights and the Law, vol. 13, no. 2, 2012, pp. 44–73, https://doi.org/10.1163/138819012X13323234710107.

"'A Great Danger for Lawyers': New Regulatory Curbs on Lawyers Representing Protesters." Human Rights Watch, vol. 18, no. 15(c), 2006, pp. 17-18, https://www.hrw.org/reports/2006/china1206/china1206web.pdf.

"Biao Teng on China Human Rights Movements." Asia Experts Forum. 18 March 2020, https://asiaexpertsforum.org/biao-teng-china-human-rights-movements/.

Burnay, Matthieu. "The Rule of Law: Origins, Prospects and Challenges." Chinese Perspectives on the International Rule of Law, Edward Elgar Publishing, 2018, pp. 11–44, https://doi.org/10.4337/9781788112390.00007.

Chia, Joy. "Rights Lawyering in Xi's China: Innovation in the Midst of Marginalization." Fordham International Law Journal, vol. 41, no. 5, 2018, https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=2713&context=ilj.

Cho, Young Nam. "Law Dissemination Campaign in China: The Origin of Chinese 'Rule of Law' Policy." Journal of International and Area Studies, vol. 21, no. 2, 2014, pp. 27–44, https://doi.org/10.23071/jias.2014.21.2.27.

David, Raphael. "Chinese human rights lawyers: the story behind those who keep human rights alive." International Service for Human Rights, 2022, https://ishr.ch/latest-updates/chinese-human-rights-lawyers-the-story-behind-those-who-keep-human-rights-alive/.

Epp, Charles R. The Rights Revolution: Lawyers, Activists, and Supreme Courts in Comparative Perspective. University of Chicago Press, 1998.

"Five Years after 709 Crackdown, Lawyers Continue to Face Repression and Punishment." Congressional Executive Commission on China, 9 July 2020, https://www.cecc.gov/publications/commission-analysis/five-years-after-709-crackdown-lawyers-continue-to-face-repression.

Fortin, Katharine. "Of Interactionality and Legal Universes: A Bottom-Up Approach to the Rule of Law in Armed Group Territory." Utrecht Law Review, vol. 17, no. 2, 2021, https://utrechtlawreview.org/articles/10.36633/ulr.669.

Fu, Hualing, and Michael Dowdle. "The Concept of Authoritarian Legality: The Chinese Case." Authoritarian Legality in Asia: Formation, Development and Transition. Ed. Weitseng Chen and Hualing Fu. Cambridge: Cambridge University Press, 2020. 63–89. Print.

Fu, Hualing, and Richard Cullen. "Weiquan (Rights Protection) Lawyering in an Authoritarian State: Building a Culture of Public-Interest Lawyering." The China Journal, vol. 59, no. 59, 2008, pp. 111–27, https://doi.org/10.1086/tcj.59.20066382.

Fu, Hualing. "The July 9th (709) Crackdown on Human Rights Lawyers: Legal Advocacy in an Authoritarian State." The Journal of Contemporary China, vol. 27, no. 112, 2018, pp. 554–68, https://doi.org/10.1080/10670564.2018.1433491.

Fu, Hualing. "Can Lawyers Build a Legal Complex for the Rule of Law in China?" Human Rights in China, no. 1, 25 July 2014, https://www.hrichina.org/en/china-rights-forum/can-lawyers-build-legal-complex-rule-law-china

Fu, Hualing. "Challenging Authoritarianism Through Law: Potentials and Limit." University of Hong Kong Faculty of Law, 7 December 2010, https://doi.org/10.2139/ssrn.1721447.

Lague, David. "A human rights lawyer pays the price of standing up to Xi's China." Reuters Investigates: The Tiger Bench, 2022, https://www.reuters.com/investigates/special-report/china-lawyers-crackdown-mainland/.

Lei, Ya-Wen, and Daniel Xiaodan Zhou. "Contesting Legality in Authoritarian Contexts: Food Safety, Rule of Law and China's Networked Public Sphere." Law & Society Review, vol. 49, no. 3, 2015, pp. 557–93, https://doi.org/10.1111/lasr.12153.

Levitt, Janet. "Bottom-Up Lawmaking: The Private Origins of Transnational Law." Democracy and the Transnational Private Sector. Indiana Journal of Global Legal Studies, vol. 15, 2008. https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1366&context=ijgls

Fortin, Katharine. "Of Interactionality and Legal Universes: A Bottom-Up Approach to the Rule of Law in Armed Group Territory." Utrecht Law Review, vol. 17, no. 2, 2021, https://utrechtlawreview.org/articles/10.36633/ulr.669.

Fu, Hualing, and Michael Dowdle. "The Concept of Authoritarian Legality: The Chinese Case." Authoritarian Legality in Asia: Formation, Development and Transition. Ed. Weitseng Chen and Hualing Fu. Cambridge: Cambridge University Press, 2020. 63–89. Print.

Fu, Hualing, and Richard Cullen. "Weiquan (Rights Protection) Lawyering in an Authoritarian State: Building a Culture of Public-Interest Lawyering." The China Journal, vol. 59, no. 59, 2008, pp. 111–27, https://doi.org/10.1086/tcj.59.20066382.

Fu, Hualing. "The July 9th (709) Crackdown on Human Rights Lawyers: Legal Advocacy in an Authoritarian State." The Journal of Contemporary China, vol. 27, no. 112, 2018, pp. 554–68, https://doi.org/10.1080/10670564.2018.1433491.

Fu, Hualing. "Can Lawyers Build a Legal Complex for the Rule of Law in China?" Human Rights in China, no. 1, 25 July 2014, https://www.hrichina.org/en/china-rights-forum/can-lawyers-build-legal-complex-rule-law-china

Fu, Hualing. "Challenging Authoritarianism Through Law: Potentials and Limit." University of Hong Kong Faculty of Law, 7 December 2010, https://doi.org/10.2139/ssrn.1721447.

Lague, David. "A human rights lawyer pays the price of standing up to Xi's China." Reuters Investigates: The Tiger Bench, 2022, https://www.reuters.com/investigates/special-report/china-lawyers-crackdown-mainland/.

Lei, Ya-Wen, and Daniel Xiaodan Zhou. "Contesting Legality in Authoritarian Contexts: Food Safety, Rule of Law and China's Networked Public Sphere." Law & Society Review, vol. 49, no. 3, 2015, pp. 557–93, https://doi.org/10.1111/lasr.12153.

Levitt, Janet. "Bottom-Up Lawmaking: The Private Origins of Transnational Law." Democracy and the Transnational Private Sector. Indiana Journal of Global Legal Studies, vol. 15, 2008. https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1366&context=ijgls

Fortin, Katharine. "Of Interactionality and Legal Universes: A Bottom-Up Approach to the Rule of Law in Armed Group Territory." Utrecht Law Review, vol. 17, no. 2, 2021, https://utrechtlawreview.org/articles/10.36633/ulr.669.

Fu, Hualing, and Michael Dowdle. "The Concept of Authoritarian Legality: The Chinese Case." Authoritarian Legality in Asia: Formation, Development and Transition. Ed. Weitseng Chen and Hualing Fu. Cambridge: Cambridge University Press, 2020. 63–89. Print.

Fu, Hualing, and Richard Cullen. "Weiquan (Rights Protection) Lawyering in an Authoritarian State: Building a Culture of Public-Interest Lawyering." The China Journal, vol. 59, no. 59, 2008, pp. 111–27, https://doi.org/10.1086/tcj.59.20066382.

Fu, Hualing. "The July 9th (709) Crackdown on Human Rights Lawyers: Legal Advocacy in an Authoritarian State." The Journal of Contemporary China, vol. 27, no. 112, 2018, pp. 554–68, https://doi.org/10.1080/10670564.2018.1433491.

Fu, Hualing. "Can Lawyers Build a Legal Complex for the Rule of Law in China?" Human Rights in China, no. 1, 25 July 2014, https://www.hrichina.org/en/china-rights-forum/can-lawyers-build-legal-complex-rule-law-china

Fu, Hualing. "Challenging Authoritarianism Through Law: Potentials and Limit." University of Hong Kong Faculty of Law, 7 December 2010, https://doi.org/10.2139/ssrn.1721447.

Lague, David. "A human rights lawyer pays the price of standing up to Xi's China." Reuters Investigates: The Tiger Bench, 2022, https://www.reuters.com/investigates/special-report/china-lawyers-crackdown-mainland/.

Lei, Ya-Wen, and Daniel Xiaodan Zhou. "Contesting Legality in Authoritarian Contexts: Food Safety, Rule of Law and China's Networked Public Sphere." Law & Society Review, vol. 49, no. 3, 2015, pp. 557–93, https://doi.org/10.1111/lasr.12153.

Levitt, Janet. "Bottom-Up Lawmaking: The Private Origins of Transnational Law." Democracy and the Transnational Private Sector. Indiana Journal of Global Legal Studies, vol. 15, 2008. https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1366&context=ijgls

Liebman, Benjamin. "Assessing Chinese Legal Reforms." Columbia Law School Scholarship Archive, 2009, https://scispace.com/pdf/assessing-china-s-legal-reforms-c7mj6qkhy9.pdf.

Michelson, Ethan. "In Search of Activist Lawyers in China: A Time Machine Back to the Heyday of Political Activism in the Chinese Legal Profession." Wisconsin International Law Journal, vol. 37, no. 2, 2020.

Michelson, Ethan. "Many Voices in China's Legal Profession: Plural Meanings of Weiquan." China Law and Society Review, 2019, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3550522

Peerenboom, Randall. Asian Discourses of Rule of Law: Theories and Implementation of Rule of Law in Twelve Asian Countries, France, and the U.S. Routledge, 2003, pp. xxiii–xxiii, https://doi.org/10.4324/9780203317938.

Perry, Elizabeth J. "Chinese Conceptions of 'Rights': From Mencius to Mao—and Now." Perspectives on Politics, vol. 6, no. 1, 2008, pp. 37–50, https://doi.org/10.1017/S1537592708080055.

"The Rise of China's Judiciary and Its Limits." Stanford Center on China's Economy and Institutions. Freeman Spogli Institute and Stanford Institute for Economic Policy Research, 2025, https://sccei.fsi.stanford.edu/china-briefs/rise-chinas-judiciary-and-its-limits.

"Waiting for Weiquan: Worker Rights Protection at the All-China Federation of Trade Unions." China Labour Bulletin, 2022, https://clb.org.hk/sites/default/files/CLB_Waiting_For_Weiquan_ACFTU_Report_August2022.pdf.

"Walking on Thin Ice": Control, Intimidation and Harassment of Lawyers in China. Human Rights Watch, April 2008, https://www.hrw.org/sites/default/files/reports/china0408_1.pdf.

Whiting, Susan H. "Authoritarian Legality and State Capitalism in China." Annual Review of Law and Social Science, vol. 19, no. 1, 2023, pp. 357–73, https://doi.org/10.1146/annurev-lawsocsci-111622-063635.

Whiting, Susan H. "Authoritarian 'Rule of Law' and Regime Legitimacy." Comparative Political Studies, vol. 50, no. 14, 2017, pp. 1907–40, https://doi.org/10.1177/0010414016688008.

Zhang, Taisu, and Tom Ginsburg. "China's Turn Toward Law." Virginia Journal of International Law, vol. 59, 2019, https://openyls.law.yale.edu/handle/20.500.13051/17947.

Zhang, Yuxia, and Zhuang Liu. "The Rise of the Chinese Judiciary and Its Limits: Administrative Litigation in the Reform Period." Social Science Research Network, 2023, https://dx.doi.org/10.2139/ssrn.4696197.

A Conversation with General David H. Petraeus on Strategic Military Leadership on Modern Warfare

Tin Pak and Taylor Arredondo

October 25, 2024

General David H. Petraeus is a retired four-star U.S. Army general and former Director of the Central Intelligence Agency (2011–2012). A highly decorated military leader, Petraeus gained prominence as the Commander of the Multi-National Forces during the Iraq War (2007–2008), where he led efforts during the U.S. troop surge. He then served as the Commander of U.S. Central Command (2008–2010), overseeing operations across the Middle East and Central Asia. Later, he served as Commander of NATO's International Security Assistance Force and U.S. Forces in Afghanistan (2010–2011), spearheading counterinsurgency operations. Following these military positions, he was nominated by President Barack Obama in 2011 to serve in the Cabinet as the fourth Director of the Central Intelligence Agency. Today, he is the Chairman of the KKR Global Institute and co-author of his recent book titled 'Conflict: The Evolution of Warfare from 1945 to Ukraine.'

Jackson School Journal: Thank you for joining us today, General Petraeus. Given the resurgence of armed conflicts across the globe, understanding how strategic leadership–the directing of the opeational and tactical levels to achieve broader policy objectives–is critical. Drawing from your experience as a former four-star Army General and Director of the CIA, what do you consider the most essential principles or qualities of an effective strategic leader?

General Patraeus: You may recall that the intellectual construct for the exercise of strategic leadership that I developed between my three and four-star tours in Iraq consists of four tasks: First, get the big ideas right; second, communicate them effectively throughout the breadth and depth of the organization and all those who have a stake in the outcome of the endeavor; third, oversee their implementation; and fourth, determine how they need to be refined to repeat the process again, and again.

Far and away, the most important task of a strategic leader, the leader at the very top, is to get the big ideas right–to craft the right strategy. If this task is not performed well, the chances of success are slim. In essence, then, while there are many desirable qualities in leaders at any level, the quality that is most critical is judgment, and that is particularly critical at the very top, where the quality of the strategic leader's judgment is absolutely central to success. So, again, there are many qualities one seeks in a leader, and lists of them abound. If impressive strategic judgment is not present at the very top, the other qualities are irrelevant.

Jackson School Journal: With the rapid technological developments in the past decade, such as artificial intelligence and unmanned vehicles, how will the integration of these technologies in military operations affect the tempo of modern warfare regarding the speed and adaptability of forces on the battlefield?

General Patraeus: Artificial intelligence, machine learning, big data fusion applications, advanced positioning, navigation, and many other technological advances are all revolutionizing warfare. One only has to look at the incredible innovations on the battlefields of the Ukraine War, especially on the Ukrainian side. Ukraine is the first country, to my knowledge, that has not just an Army, Navy, and Air Force but also an Unmanned Systems Force that is equivalent to the other military services. The combination of all the technologies I highlighted, along with those in the unmanned systems arena, is introducing breathtaking advances in how the wars of the future–and the war in Ukraine already–will be fought. Given the increasing prominence of unmanned systems that are not remotely piloted but algorithmically piloted, one can get a sense of what that future will be.

There obviously are numerous operational and ethical concerns raised by these developments. But warfare of the future will be so fast that keeping humans in the loop in many operations will be a major disadvantage for the side that does so. This is already the case with many air and ballistic missile systems, which have to operate so rapidly – often to "hit a bullet with a bullet" – that the machine is allowed to carry out the engagement once the human clears it to do so. In fact, the U.S. needs to be learning much more than appears to be the case from what Ukraine is doing. The relationship between the designers, manufacturers, and employers of the unmanned systems in Ukraine is incredibly close and they are iterating on a weekly basis. In essence, the material development and procurement system in Ukraine is producing tomorrow's technology for today's war. By contrast, the corresponding U.S. system

has been described as producing yesterday's technology for tomorrow's wars.

Jackson School Journal: The Israel Defense Forces' military operations for the past year have transformed Gaza into a dense combat area, recalling the urban warfare of the recent Iraq war. Given your experience as the commanding general of U.S. forces in Iraq from 2007 to 2008, what strategies should the Israel Defense Force employ to mitigate civilian casualties in Gaza?

General Patraeus: The IDF has done a very impressive job degrading Hamas' capabilities, decimating its leadership, rendering its units largely ineffective, and denying the smuggling of arms, ammunition, and material into Gaza. They did the latter by taking control of Rafah, the southern border crossing between the Sinai and Gaza, and also the Philadelphi Corridor along the border under which tunnels used to be operated.

However, the "Clear and Leave" operations the IDF is conducting repeatedly leave a vacuum, and remnants of Hamas and Palestinian Islamic Jihad thus can reconstitute their personnel, even in the absence of replacement weaponry, ammunition, explosives, etc. "Clear and Leave" operations also cannot achieve the security needed to prevent the activities of Hamas and the Palestinian Islamic Jihad in the territory and to provide a better future for the Palestinian people in Gaza, which should be announced as an objective of Israel.

While there are many challenges for operations such as those we conducted during the Surge in Iraq, the comprehensive civil-military counterinsurgency campaign that we conducted ultimately drove violence in Iraq down by well over 85% and enabled further reductions in the subsequent three and a half years. This campaign led to much better lives for the Iraqi people who had lived in areas occupied by Al Qaeda, the major Sunni insurgent groups, and the Shia militia elements supported by Iran.

Furthermore, if security is not established in Gaza, there is little prospect for the organized delivery of humanitarian assistance by non-governmental and intergovernmental organizations, for the introduction of Palestinian security forces trained and equipped in Jordan by the U.S., for the restoration of basic services employment of Arab forces and contractors, for the restoration of basic services and reconstruction, and for the establishment of local governance, and so on. An iconic figure of the Vietnam War observed that "Security may be 10% of the problem or 90% of the problem. Whatever it is, it is the first 10% or the first 90%." The same is true in any such conflict, as it was in Iraq, where Clear and Leave operations did not achieve the necessary security for the people and for all the other initiatives that needed to be pursued to make the lives of the people better and to solidify the security foundation.

In sum, the current IDF approach will not achieve the overall objectives stated by Israel at the outset of the conflict–destroying Hamas, preventing Hamas from governing Gaza again and recovering all of the hostages held by Hamas. Only a painstaking, sequential–from north to south–clear, hold, and build operation that creates numerous "gated communities" and can be cleared of extremists–and then kept clear, including by the use of biometric identification cards and careful access control–only that kind of operation can accomplish those objectives and also establish the security necessary for the organized provision of humanitarian assistance, restoration of basic services, and the reconstruction of homes and damaged infrastructure.

Jackson School Journal: In Russia's ongoing invasion of Ukraine, Putin has led from a distance while Zelensky continues to wear military fatigues and remains close to the frontlines. From your perspective, what impact did Putin and Zelensky's respective leadership styles have on the course of the war?

General Patraeus: President Zelensky has been a brilliant strategic leader, performing the four tasks I described in the first question very impressively. His first big idea came very early on, of course, when he stated, "I need ammunition, not a ride." Then came the decision to stay in Kyiv, to keep his family there, to fight for the capital and the other areas of the country, and to keep men in the country. And, of course, his communication of the big ideas and other messages has been so brilliant that he has been described as "Churchill with an iPhone." He is, after all, a former actor and comedian who played the Ukrainian President so superbly on TV that he got elected to be the President. His oversight of the execution of the big ideas, including his example of donning a uniform instead of a suit, his energy, his inspiration, his various activities, tough personnel decisions, and how he allocates his time, have all been very impressive. And he has repeatedly made refinements to the big ideas and repeated the process.

All that notwithstanding, and all of Putin's flaws and miscalculations as Russia's strategic leader to the contrary, the reality is that Russia has some four times the manpower of Ukraine and an economy that is ten to fifteen times larger, as well. Moreover, Putin is seemingly unconcerned by the massive casualties the Russian forces have taken and has no reservations about hammering Ukraine's civilian

infrastructure in addition to legitimate military targets.

Jackson School Journal: Based on your experience with post-conflict recovery efforts in Iraq and Afghanistan, what are some lessons from these experiences that U.S. military leaders should follow in terms of facilitating a stable transition to a peacetime government following a prolonged conflict?

General Patraeus: The biggest of the big ideas in this arena is, once again, that no sustainable reconstruction or recovery effort is possible without security. That doesn't mean that constant repairs and reconstruction cannot be pursued during a war. Indeed, such activities are imperative,especially in Ukraine, given that Russia has damaged or destroyed virtually all of Ukraine's thermal and hydroelectric power generation plants and is now also targeting the transformer and transmission infrastructure around Ukraine's nuclear power generation facilities. But, without security, it is obviously hard to perform all of the reconstruction that is so desperately needed, especially the closer one gets to the front lines. Beyond that, it is awfully hard to attract sizable outside investment during a war.

In truth, this reality highlights yet another reason why the U.S. and the Western world should be doing everything humanly possible to enable Ukraine to change the dynamic in this war and to convince Putin that Russia cannot make additional gains at an acceptable cost. Only then might meaningful talks be held on bringing the war to an end. A critical component of any sustainable agreement will be an ironclad security guarantee by NATO or by a U.S.-led coalition of the willing, ideally with boots on the ground as is the case in the Baltic States.

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