CHARLES UNIVERSITY

FACULTY OF SOCIAL SCIENCES

Institute of Political Studies

Kill Not The Goose That Lays The Golden Egg: Developing SpaceX's Grand-Strategy Amidst a New Cold War

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Master Thesis

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End Notes

Abstract

The Current Cold War poses a significant threat to SpaceX's terrestrial and extraterrestrial operations. This thesis aims to develop a SpaceX grand-strategy by taking a hybrid, non monoparadigmatic methodology that combines Institutional Liberalism's geoeconomic strategies with Political Realist gepolitical strategies. This can be accomplished by creating links between SpaceX corporate grand-strategy and American geoeconomic strategy. Then, it can be highlighted how this affects commonly associated links between geoeconomic strategy and Geopolitics. With that accomplished, a mutually understood and beneficial approach to international politics can be established between the strategically important multinational enterprise SpaceX and its benefactor the United States of America.

Abstrakt

Současná studená válka představuje významnou hrozbu pro pozemské a mimozemské operace SpaceX. Tato práce si klade za cíl vyvinout velkou strategii SpaceX pomocí hybridní, nemonoparadigmatické metodologie, která kombinuje geoekonomické strategie institucionálního liberalismu s geopolitickými strategiemi politického realismu. Toho lze dosáhnout vytvořením propojení mezi velkou strategií společnosti SpaceX a americkou geoekonomickou strategií. Poté lze zdůraznit, jak to ovlivňuje běžně související vazby mezi geoekonomickou strategií a geopolitikou. Díky tomu lze mezi strategicky významnou nadnárodní společností SpaceX a jejím

mecenášem Spojenými státy americkými vytvořit vzájemně pochopený a prospěšný přístup k mezinárodní politice.

Klíčová slova

Geopolitika, Geoekonomie, Velka Strategie, Vesmírná soutěž, Zahraniční politika

Titul

Zabij ne husu, která snáší zlaté vejce: Vývoj velké strategie SpaceX uprostřed nové studené války.

Keywords

Geopolitics, Geoeconomics, Grand-Strategy, Space Competition, Foreign Policy

Range of thesis: 22,350 characters/ 94 pages

Declaration of Authorship

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.

2. The author hereby declares that all the sources and literature used have been properly cited.

3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague-03/05/2023

Chris Tigmo

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Institute of Political Studies

Master Thesis Propsal

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Introduction

The current cold war climate poses both a threat and opportunity for SpaceX and the U.S. government. Currently, the great power rivalries have increased their weaponization of Geoeconomics in support of their pursuit of geopolitical interests. This has put great stress on the American private-sector as they developed strong economic ties in China who was America's top trade partner for most of the 2010's. If the U.S. and SpaceX are not careful, Sino-Russian geoeconomic strategies could undermine their ability to compete for international influence and the resiliency of their existing international partnerships. A decrease in U.S. hard/soft power would likely lead to a reduction in international opportunities for SpaceX and the ability for foreign actors to employ anti-competitive policies preventing SpaceX from competing for contracts. It would also likely lead to an increase of China's stranglehold on rare-earth mineral production/refining.

Thus, to navigate this crucial period, SpaceX/US must work together to expand their soft-power influence in key regions, increase supply-chain resiliency, enhance multilateral economic connectivity/cooperation amongst U.S. allies, secure critical-resource access, and reduce SpaceX and its affiliate companies' need for Sino-Russian services or resources. However, there are legal limitations to the degree in which the American federal government can incentivize or control

SpaceX operations/policy. So, the thesis will have two key underlying perspectives. First is the development of this thesis from the perspective of SpaceX, since it has stronger control over its strategies and operations. The second perspective is the assumption that Geoeconomics operates as an extension of Geopolitics and showing how SpaceX policy can promote American geoeconomic strategy, which then supports geopolitical interests. The overall framework can be summarized as the use of a strategically important American multinational enterprise to empower institutional liberalism geoeconomic strategies, which then support political realist oriented geopolitical interests. In order to accomplish this, an analysis of the general geopolitical and geoeconomic approaches in each region by regional or great powers must be established. Then, with a basic understanding of each region's political relations SpaceX can develop regional strategies using two key factors. These two factors are the economic potential of the investment into a specific state and the necessity for empowering a given state through geoeconomic strategies. A strong focus will be geared towards states with less-developed satellite and launch capabilities, as there would be less domestic competition that would have the local state's favor and likely relegate SpaceX to a secondary actor. By focusing on these states, SpaceX can help build stronger partnerships that also allow for greater control and influence over these states' developments. After analyzing regional opportunities, an analysis of their overall economic potential and political importance can be developed. By tying these economic opportunities for SpaceX with the geopolitical interests of American foreign policy, the two actors can formulate a dualistic geoeconomic-geopolitical framework that connects Political Realism and Institutional Liberalism. With this accomplished, SpaceX and its affiliates should be able to adapt to the changing international political climate and shield itself from the geoeconomic strategies of malign foreign powers, while also supporting U.S. foreign policy

goals. By doing so, the U.S. can develop long-term partnerships over critical resources, critical infrastructure, and critical commercial/government satellite systems. These critical infrastructure partnerships with allies feed into elements of Liberal Theory that mutually beneficial bilateral trade, consistent approaches, and broader foreign policy attitudes are key factors for growing bilateral political relationships (Kleinberg & Fordham, 2010). Thus, SpaceX can play a strong role in building soft-power influence and positive diplomatic sentiments among American allies, while also ensuring trade relations are secured around long-term projects like critical transportation infrastructure, critical resource exploitation, digital infrastructure, space exploration, and satellite/launch services.

Problem and Research Questions:

This thesis attempts to address issues in foreign policy strategies, Geopolitics, Geoeconomics, U.S. grand-strategy, corporate growth strategies, and the Cold War. The currently emerging Cold War poses a significant threat to SpaceX's sustained terrestrial and outer-space operations. Russia and China have become increasingly aggressive with their hard and soft power strategies. In addition, there is an increasing amount of international competition from private-sector space companies and government space agencies. The malign geoeconomic strategies of Russia and China could prove to be the catalyst for SpaceX's stagnation or decay, which would allow for its competitors to catch up and surpass them. The hegemonic influence of the U.S. government has facilitated SpaceX's international expansion, but that is being threatened by the increasing trend of hostile great-power rivalry between U.S.-led alliances and the Sino-Russian alliance.

Another major issue is the lack of mutual understanding of foreign policy issues between strategically important multinational enterprises like SpaceX and its guarantor the U.S. government. The U.S. has steadily increased its utilization of political realist foreign policy strategies that revolve around containment and the weaponization of geoeconomic strategies since 2015. SpaceX and many other MNEs have been accustomed to the cooperative economic trends in the globalized world economy and the previously dominant approach of Institutional Liberalism. America's hedging strategy with China has exacerbated this confusion, since American companies are uncertain of how far the geopolitical rivalry will escalate. Will tensions simmer or will China invade Taiwan and cause World War III? The dubious nature of these predicaments has led to American companies staying invested in China, with the hopes that tensions will normalize. However, this is both uncertain and unwise.

Thus, this thesis seeks to answer three key questions to develop the contextual framework.

1. How can a hybridized geoeconomic-geopolitical approach by SpaceX/USA resolve currently conflicting realist and liberalist foreign policy strategies?
2. What are the prevailing geoeconomic and geopolitical strategies at play within the two key "Gateway Regions" of Europe and the Indo-Pacific that impact SpaceX/American development?
3. How does the inclusion of a strategically important SpaceX grand-strategy interconnect with American geoeconomic interests in key gateway regions, as utilizing this empowered geoeconomic strategy to support geopolitical foreign policy strategies in a coalescing manner?

However, this thesis has come across some deficiencies in evidence that require further research. One major problem is the lack of open-source information regarding SpaceX's internal logistics and operations. The majority of this information is kept relatively secret and it is very difficult to even find a list of their materials suppliers or contractors. Similarly, it is difficult to find open-source details on some of the bilateral or multilateral trade/security agreements. For example, the Indo-Pacific Economic Framework was announced in 20220, but has seen limited policy detail progress based upon information released by the government. The only publicly available details are the general statements on its four goals, as well as some announcements by other states about which sections of the framework they have agreed to. In addition, governments do not typically disclose detailed information about the foreign policy initiatives they are employing, which means the thesis must rely on secondary sources for analysis of the federal government's unstated intents. Also, there are usually delays in the release of detailed policies for trade/political frameworks from when they are first announced. For example, the USMCA trade agreement was announced in 2017, but final negotiations did not conclude with the release of policy details until 2020-2021. Thus, many of the currently developing bilateral/multilateral frameworks and policies are still being fleshed out and not available to the public. This makes analyzing the practical policy details quite speculative. Another issue involved with researching current political affairs is the ability for issues to evolve. An example of this is France's approach to Russian sanctions and SpaceX free-market competition. When the thesis was first started, France had still been trying to negotiate with Russia and resisted aggressive sanction policies. Similarly, France had seemingly taken strong protectionist measures to promote French aerospace developments and to slow SpaceX's market penetration in France. Earlier this year, France appears to have reversed their course on both of these issues. France would agree to

American sanctions on Russia and President Macron would meet with multiple American MNEs like SpaceX and Pfizer to negotiate their investments into France last month. Thus, much of the open-source information that could be used for this thesis is either speculative or it might be invalidated by new developments occurring as the thesis is being developed.

Justification and Relevance: Strong Implications for Global Political Affairs.

The relevance of this dualistic approach to foreign policy is quite important. First, geoeconomics has re-emerged as an important field of study and warrants further development for its ability to support geopolitical interests of the state. Second, there is a gap in scholarly literature about private-sector corporate growth strategies that work in unison with the host state's grand-strategy in Western capitalist countries. Or it could stated that there is lack of literature regarding the connectivity between strategically important multinational enterprises, geoeconomics, and geopolitics within a country's grand-strategy. Third, the space pioneer SpaceX and other private-sector MNEs are at a disadvantageous position compared to their state agency rivals from China or Russia when it comes to coordinated investment/development approaches. Fourth, there is a gap in scholarly research about macro-level political risk analysis that focuses on international politics, rather than individual states (see graph 1 for how thesis framework relates). This thesis can formulate a general contextual framework that addresses these issues and deficiencies. The dualistic framework could reduce confusion and disconnects between the U.S. and SpaceX over international politics. In turn, this would facilitate the long-

term economic and political growth of SpaceX internationally, which in turn bolsters U.S. foreign policy strategies. This symbiotic relationship will be essential for enhancing SpaceX/American competitiveness in the new cold war. This seems especially pertinent since the previous Cold War lasted roughly 45 years.

Methodology

The methodological approach will be conducted in a deductive scenario analysis method. In addition, there will be a strong focus on qualitative analysis. The economic aspects of the research will rely largely on the use of general economic statistics to support investment strategies, while the political approaches and analysis will use qualitative analysis.

There will be three key sections/pillars for this Dualism Theory. The first pillar/segment, seeks to provide a preface, theory, introduction to key research questions, and methodology for this thesis. Then it provides a historical-contemporary analysis of SpaceX's rise to relevance, as well as several pre-existing geopolitical theories that the thesis can potentially coincide with .

The second segment contains the crux of the research that highlights two key regions (Europe & Asia) and their regional analyses that consist of: (1) the geopolitical overview, (2) geoeconomic overview, (3) targeted economic opportunities for SpaceX, (4) then a brief conclusion of how SpaceX investment strategies support American geoeconomic and geopolitical grand-strategy interests, especially in regards to two key strategies: (1) American Containment Policy, (2) American Strategic Basing. In regards to the second analysis on regional opportunities, it will focus on three types of regional opportunities that mostly target: (1) securing critical-resources, (2) boosting supply-chain resiliency via multi-domain transportation

and infrastructure investments for both SpaceX and its sister companies (i.e. ports, maritime shipping vessels, & refineries), (3) Focus on digital infrastructure, satellite services, and launch services for political and economic gains. There are several reasons for focusing on these types of economic opportunities. (1) Critical-resources like rare earth metals are essential for all facets of the modern economy like: electric vehicles, spacecraft, phones, satellites, and computer systems. Demand for these critical resources is expected to grow more than 450%, as they are essential for green energy transition and all facets of modern technology (Nakano, 2021). (2) Multi-domain infrastructure and transportation investments are primary nodes/mechanisms for economic growth and international trade, which increasingly rely on downstream space services (Noorali & Flint, 2022). This is especially true for maritime shipping vessels that will highlighted throughout the thesis because they are primary means of international trade totalling around 90% (Noorali, & Flint). While there are free European maritime satellite services, SpaceX's LEO satellites may offer better downstream and upstream quality for recreational services amongst sailors; these services are essential for sailors' mental health due to their poor work conditions and long isolation from family (Brooks, 2022). (3) The focus on digital infrastructure, satellite and launch services is justified by their rapidly increasing geostrategic importance for economic, military, and research utilization (Raymond, 2020). These three foci form the core geoeconomic interests of the thesis due to their essential role in modern economics and politics.

The third segment/pillar attempts to connect how the geoeconomics oriented investment strategies support the overarching geopolitical grand-strategy goals of the American government. Then, the thesis will conclude with how these combined Geoeconomics-Geopolitics strategies connect Political Realism (via Geopolitics) and Institutional Liberalism (via Geoeconomics). The

conclusion then highlight how this hybrid approach creates a base-level platform from which strategically important SpaceX can tailor their growth to support America grand-strategy goals. Otherwise, SpaceX's growth strategies will become reflexively conditioned/developed by external political factors that could have been accounted for if they were cognizant of international political issues.

As for the regional aspects, Europe and the Indo-Pacific/Southeast-Asia are selected as the most important "gateway zones" for the great power rivalry between NATO/AUKUS and the Sino-Russian alliance due to their economic and geostrategic importance. Similarly, it coincides with pre-existing foreign policy literature from leading American scholars like Saul Cohen, Zbigniew Brzezinski, and Nicholas Spykman. An analogy of what this approach amounts to is the example used to describe American Pragmatism. There is a hotel that represents the worlds international structure. The buildings architecture and interior design are American themed. There are two primary hotel entrances/exits on opposite sides that represent Political Realism and Institutional Liberalism. Inside the hotel are individual rooms that are their own geopolitical theories like Mackinder's Heartland Theory, Spykman's Rimland Theory, and Brzezinksi's Grand Chessboard Theory. This hybrid approach/methodology is meant to be the hallway that connects the entrances to the rooms, or the underlying normative frameworks (Political Realism & Institutional Liberalism) to the individual geopolitical theories that encompass global political frameworks. As such, there is greater emphasis on connecting the links between strategically important MNEs (like SpaceX), Geoeconomics, Geopolitics, and global grand-strategies. Ultimately,"An era of intense geoeconomic activity might thus become an era of unprecedented risk for important private companies in important sectors" (Luttwak,1990, pg 22). Thus, there must be an equal amount of attention paid to strategically important private-sector companies,

rather than largely focusing on state interests and security. This is especially true for Western capitalist systems that have inter-dependent relationships with MNEs like SpaceX.

Structure/Outline

III. Conclusion: “Kill not the Golden Goose that lays the Golden Egg.”

A. Tying together the two primary international relations theories of Political Realism and Liberalism, through dualistic use of Geoeconomic and Geopolitical strategies into a centrist approach.

B. Highlighting the importance of these two approaches for both SpaceX and USA. Highlighting how this can also be used as a domestic defense mechanism against foreign corporate and political opposition. Develop an approach that combines corporate grand-strategy to geoeconomics to geopolitics, and to U.S. grand-strategy.

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I. Kill Not the Goose that Lays the Golden Egg: Developing SpaceX's Grand-Strategy Amidst a New Cold War

Preface

Political Realism and Liberalism are two of the most influential theoretical political-moral frameworks that create underlying paradigmatic assumptions in international relations, which typically run in stark contrast to each other (Pfeiffer, Christian, 2021). These conflicting paradigmatic assumptions can then skew geoeconomic and geopolitical approaches to foreign policy in a polarizing manner. For Political Realism it often takes an "us versus the rest" nationalist approach to politics. Treaties and cooperation are only secure through power dominance. This amplifies the pre-existing realist paradigm within these two approaches to international politics. The political realist field of Geopolitics can be defined loosely as "the study of the balance between options and limitations. A country's geography determines in large part what vulnerabilities it faces and what tools it holds" (Zeihan, Peter, 2021, pg 15). As a result, the nation-state is the core interest to political realists, rather than the general plight of all humans. On the other hand, Liberalism takes the opposite cosmopolitan approach of linking all humans together as a species and taking a more progressive approach to solving issues. These approaches include cooperation, spreading democracy, non-governmental diplomacy, and most importantly (to the thesis) use of economic cooperation for international political stability. Its parallel field of Geoeconomics can be defined as "the application of economic means of power to achieve strategic objectives" or "how geopolitics and economics interact in international

relations" (Klement, Joachim, 2021, pg. 15). The application of contradicting theories of politics can lead to confusion, conflicts of interest, and self-harmful political developments when new government regimes change as do their political theories. This layering of self-contradicting international relations political approaches seems to have occurred recently in the West, particularly in the United States. This increases the strain on multi-national enterprises (MNE) operations when they invest heavily into a state like China, but decades later must quickly withdraw those infrastructure/operations investments due to great-power rivalry. Decades of investments are being withdrawn and redirected over a period of several years. This has led to increasingly aggressive realist-oriented use of geoeconomic strategies and military oriented geopolitical strategies, which create a negative environment for many American MNE's. While the broad political theories may be divergent in their views, their corresponding approaches of geopolitics and geoeconomics can still be used in a dualistic manner. As such, attempts should be made to bridge the gap between the two political theories, through practical applications of combined geoeconomic-geopolitical strategies. However, this hybrid approach will operate under a political realist perspective that the liberalist geoeconomic strategic strategies should be used in support of geopolitical interests. By taking a moderate/centrist approach to liberalist and realist applications of geopolitics/geoeconomics, it should reduce the negative effects of large shifts in international politics on MNEs like SpaceX. The main reason for choosing SpaceX as a case study is that private-sector companies like SpaceX excel at developing lower cost solutions for space technology on average compared to government agencies (MorganStanley, 2020). Since SpaceX is the world's most successful private-sector, it is in a strong position to benefity from the projected growth in the global digital economy that could possibly increase from $350 billion to $1 trillion by 2040 (MorganStanley, 2020). Similarly, these studies also highlight that

about 50% of this digital economic development will be from satellite broadband, which SpaceX is a priamry service provider (MorganStanley, 2020). In addition, technilogical advancements and exposure into less-developed markets have the potential to create new Silicon Valleys, which SpaceX can play a role in fostering as a means of securing further income and influence (Carafano, 2022). However, there are major changes in international politics that create problems for SpaceX, which must be addressed to maximize lon-term profit.

Within the last few decades, Political Risk Analysis and Country Risk have emerged as important tools for helping companies manage/track current socio-political and economic problems in a given country. However, these tools largely focus on a corporation's operations in a specific country, but not how global geopolitical issues can affect them. Similarly, they tend to focus on issues like new tax policies, threats from crime, lack of infrastructure, corruption, education and population demography (Simon, 1984). Thus, this thesis will deviate from those two tools by focusing on a more macro-level approach that seeks to identify macro-level geopolitical and geoeconomic issues at play that affect both SpaceX and U.S. In addition, it will focus on generalized macro-level grand-strategy approaches that connect U.S. grand-strategy to SpaceX grand-strategy and Institutional Liberalism approaches to Political Realism approaches within foreign policy. In theory, this could provide a mutually understood basis which both the American government and SpaceX operate from. With this accomplished, there should be less of a disconnect between American foreign policy approaches and the corporate growth strategies of its strategically important space corporation SpaceX. Without such a framework, there will continue to be a disconnect between their approaches and give a small, but important, comparative advantage to competing space agencies or state sponsored companies.

The structure to this hybridized approach comprises three key research questions: (1) How can a hybridized geoeconomic-geopolitical approach by SpaceX/USA resolve currently conflicting realist and liberalist foreign policy strategies? (2) What are the prevailing geoeconomic/geopolitical strategies at play within the two key "Gateway Regions" of Europe and the Indo-Pacific that impact SpaceX/American development? (3) How does the inclusion of a strategically important SpaceX grand-strategy interconnect with American geoeconomic interests in key gateway regions, while also empowering geopolitical foreign policy strategies in a coalescing manner?

This thesis attempts to answer these research questions by developing a broad context to the Cold War politics that surround SpaceX's development and why it is directly tied to American foreign policy. Then, the thesis identifies the geoeconomic-geopolitical strategies being employed by relevant regional (or great powers) powers. Afterwards, it highlights important regional opportunities for SpaceX that target (1) critical-resource access, (2) multi-domain supply-chain/logistics investments, (3) and space/digital infrastructure opportunities. Last, the thesis ties steps one through three into a cohesive geoeconomic approach and highlights how it supports the geopolitical interests of American grand-strategy. There are several reasons for focusing on these types of economic opportunities. (1) Critical-resources like rare earth metals are essential for all facets of the modern economy like: electric vehicles, spacecraft, phones, satellites, and computer systems. Demand for these critical resources is expected to grow more than 450%, as they are essential for green energy transition and all facets of modern technology (Nakano, 2021). (2) Multi-domain infrastructure and transportation investments are primary nodes/mechanisms for economic growth and international trade, which increasingly rely on downstream space services (Noorali & Flint, 2022). This is especially true for maritime

shipping vessels that will highlighted throughout the thesis because they are primary means of international trade totalling around 90% (Noorali, & Flint). While there are free European maritime satellite services, SpaceX's LEO satellites may offer better downstream and upstream quality for recreational services amongst sailors; these services are essential for sailors' mental health due to their poor work conditions and long isolation from family (Brooks, 2022). (3) The focus on digital infrastructure, satellite and launch services is justified by their rapidly increasing geostrategic importance for economic, military, and research utilization (Raymond, 2020). These three foci form the core geoeconomic interests of the thesis due to their essential role in modern economics and politics.

SpaceX's History and current developments

The American space industry is celebrating its sixty years of history. It was born out of the Cold War after the Soviet Union's launch of Sputnik in 1958. America's space industry would be strictly controlled and developed by the US government for the next several decades. In the 1960s, there were some limited attempts to commercialize the US space industry. However, any foreign country or company that wanted to launch satellites or lease their services had to go through the United States government. Due to the massive advantages government service providers had, it was almost impossible and financially unfeasible for any American private sector company to compete. During the 1970's, the US had attempted to phase out almost all of its ELVs in favor of the space shuttle (FAA.gov, 2020). This only exacerbated the US's inability to meet commercial demands for both domestic and foreign markets. In 1982, the US funding for ELVs had completely ceased. These issues dramatically spurred on the need for American private sector involvement in the space industry. As such, several congressmen and

President Reagan's administration supported legislation and executive orders that would help grow private sector involvement. In 1982, the US launched its first private sector made Conestoga rocket made by Space Services. Naturally, there was widespread debate over whose regulatory authority this new space sector would fall under. By President Reagan's executive orders, the authority was granted to the Department of Transportation who subsequently created the Office of Commercial Space Transportation. Unfortunately for private sector companies, it was still a bureaucratic nightmare trying to get authorization and permits for launches as it required the approval/oversight of seventeen different government agencies. Thus, the DoT focused heavily on assisting in the regulatory process and guiding private sector companies like Space Services through it all. In addition to the growing economic demands, the crashing of the US space shuttle also led to the banning of commercially used satellites via NASA's shuttle. This directly contributed to the rise of America's private-sector space industry. Another major factor was the European Space Agency's development of its own expendable launch vehicle, the Ariane. By 1989, the ESA had privatized their use of the Ariane under the private company Arianespace, which is now heavily nationalized by the French government. This encouraged the US to increase its space capabilities and their desire to always be ahead of the competition by one to two decades. The US would surpass the USSR and far exceed the EU's capabilities in volume but had been losing the competition for cost/effective launch capabilities (Pethokoukis & Berger, 2021). At present, the US has launched approximately four thousand satellites (including SpaceX), the EU only several hundred, and the former USSR at a little over fifteen hundred (N2YO.com, 2022). Even if the USSR's satellites were combined with the rest of Europe, it would only amount to around half of that of the US. However, most of the American space technologies would stagnate in the 1980's. Therefore, many American companies would rely on

EU/Russian launches prior to SpaceX (Pethokoukis & Berger, 2021). Even though the US had been pumping out more satellites, it had been losing the qualitative competition.

By the time of SpaceX's arrival in the early 2000s and the first several attempts at spaceflight, the US's private and public sector had been relying on technology largely from the 60's and 70's. This is one of the main reasons why SpaceX's success with their more cost-effective Falcon rockets was applauded with great vigor. SpaceX had taken an outdated and an economically unfeasible (without subsidies/government assistance) market and dramatically reduced the flight costs by two-thirds compared to rival ULA (Mann, 2020). The US government, prior to SpaceX, wanted to stay competitive with Europe/Russia so it allowed the merger of Boeing and Lockheed Martin's space divisions into the ULA. Historically, the US has adopted strong anti-monopoly policies and strongly encouraged market competition. However, it was at this point the US realized that if nothing changed American launch providers would phase out of relevance and eventually lead to American dependence on Europe/Russia for launch capabilities. Having only seen the collapse of the USSR fifteen years ago and currently waging its War on Terror, the US found it unacceptable to rely on foreign powers for its war effort. Thus, the two most important American aerospace companies were allowed to merge into their own aerospace monopoly. Regardless, SpaceX eventually launched their rockets using far cheaper computer components, cheaper metal materials, and less employees. This feat allowed them to become competitive players in an American space industry dominated by the ULA. It is estimated that the 400 million dollars SpaceX spent on Falcon 9 was ten times lower than the estimated cost via previous government contracting (Financial Times, 2021). The timing of SpaceX's arrival and success was quite fortuitous for them but could also be a source of great geopolitical trouble in the future. Economically, SpaceX came into the American markets when

US space technology was stagnant, but there was massive private sector demand for satellite launches and uses. Now, SpaceX has developed to the point where they are undisputedly the most capable and highly valued space company. One that stands above most government space agencies. However, there are significant changes in international politics that are troublesome for SpaceX/US from a geopolitical and geoeconomics manner.

SpaceX formed a year after the War on Terror began and there was huge government demand from the military, NSA, CIA, NASA, and FBI for increased satellite technology. The need for scientific, weather forecasting, intelligence gathering, and security capabilities was growing each year. However, the War on Terror began to cool off and was in the mid-late stages by the time SpaceX first successfully launched their Falcon rockets in 2008. Luckily for SpaceX, the second major geopolitical event that continued the increased government demand was the US's "Pivot to Asia" under the Obama Administration. This pivot was in response to rising tensions with North Korea and its sponsor state China, whose economic, political, and military influence grew rapidly. Even though Sino-American relations were largely categorized by "hedging strategies", the US made several strong displays of power and influence in the Asia Pacific region to discourage any malign maneuvers from both North Korea and China (Ye, 2020). Then in 2014, there was the Maidan Revolution and increased fear of a reemerging expansionist Russia whose close ties with China potentially signaled the beginnings of a new Cold War. While meddling in Ukraine could be downplayed, the Russian annexation of Crimea and open military participation in East Ukraine could not be dismissed by NATO. In 2022, China and Russia made a joint statement about their present and future goals. They also highlighted their mutual concerns over US security alliances in Europe and Asia. They also directly challenged/opposed American hegemonic influence (AirUniversity, 2022). In a way, various

scholars consider this to be an official declaration of organized strategic competition between the Sino-Russian Alliance and the US/NATO bloc in a Cold War-esque manner (AirUniversity, 2022). Then, they claim to want a tri-polar international structure where all three compete for influence in Europe, Africa, and Southeast Asia evenly. To add fuel to the fire, Russia began its "special operations" in Ukraine by invading the country and laying waste to much of Ukraine's infrastructure in 2022. There is also the issue of Taiwan's sovereignty and Xi Jinping's declaration to the PLA that China needs the military capabilities to conquer Taiwan, which was taken as a threat by the US (Lagrone, 2021). In response to Russian transgressions, NATO has been increasingly active and supportive of Ukraine. Its European partners have also increased their military spending and contributions to help counterbalance Russia. As for China, the US has increased military cooperation with the UK, Australia, Japan, South Korean, Vietnam, India, Indonesia, and several other states. AUKUS was listed as a primary concern of the new Sino-Russian Alliance (AirUniversity, 2022). This military technology partnership between Australia, United States, and the United Kingdom is an expansion of the Defense Trade Cooperation treaties from the Bush Administration (Moroney, 2022). In addition to AUKUS, are the Indo-Pacific Framework, PGII and various bilateral partnerships. Due to the increased fear and competition for geographical and technological advantages, Russia and China have been testing out new missile systems. One of great relevance to SpaceX is the Russian anti-satellite technology that was previously tested in 2021 (Panda & Silverstein, 2022). It proved that missiles could be launched from ground facilities effectively at low-mid earth orbit satellites. Regardless, anti-satellite technology is a reemerging field and there is little in the way of public information that highlights proven startegies for defending against such attacks. Thus, it is best for SpaceX to focus on what it can best control, which is its corporate-growth strategies.

Then, SpaceX can set itself up to outsustain its terrestrial competitors by securing access to ample critical-resources, international partnerships, and international markets/funding. With that in place, SpaceX would be able to mass produce micro-satellites, produce more rockets, and expand their overall launch capabilities for commercial and governmental use.

Even if war does not break out, the multi-domain competition will continue to escalate for the coming years. As such, SpaceX must work to ensure its growth strategies fully support American geopolitical interests, secure its access to critical-resources, develop/secure its multi-domain supply-chain systems, and continue to lead the way in aerospace/digital infrastructure developments globally. As American General John Raymond stated, "Not only are space operations global, they are also multi-domain. A successful attack against any one segment (or combination of segments), whether terrestrial, link, or space, of the space architecture can neutralize a space capabilitity; there space domain access, maneuver, and exploitation require deliberate and synchronized defensive operations across all three segments" (Raymond, John, 2020, pg VII). Similarly, this applies to commercial space activities and why integraded multi-domain approaches to securing logistics/supply-chains are essential for both governments and the private-sector MNEs. Consequently, this means it is necessary to focus all forms of supply-chain security for SpaceX, not just the common focus on operational and sensitive technology security. Other aspects like transportation, critical resource access, and non-Chinese supplier sourcing for metals and parts are essential for largely insulating SpaceX from Chinese manipulation.

This global, multi-domain, approach to space/digital infrastructure systems applies to other civilian logistics/operations systems that are essential to both SpaceX and the U.S. For example, maritime shipping and port logistics are largely considered completely seperate and unrelated

fields. However, maritime shipping has consistently been the primary method of transportation in international trade accounting for 70% of global trade volume and 40% of all U.S. international freight value, especially for dry bulk shipping that contains rare-earth minerals (U.S. BTS, 2023). Similarly, “Ports connect two realms of transport – land and sea routes. Rather than seeing land and sea as seperate realms, they are connected by transport corridors that almost always run through ports. Furthermore, throughout history conflict over control of corridors and ports has a played a role in changing the balance of global power” (Noorali, Hassan & Ahmadi, Seyyed & Flint, Colin, 2022, section 1). Prior to the recent trade war with China and Russian invasion of Ukraine, the U.S. was reliant on offshore manufacturing. However, due to increasingly hostile geoeconomic and political strategies by great powers, many American and European companies have begun “re-shoring or near-shoring” their supply chains (Handley, Lucy, 2023). For example,“In 1982 U.S. multinationals had 30 percent of their labor force in foreign affiliates. By 2014, the share had increased to 60 percent“ (Barbe, Andre & Riker, David, 2018, pg 2). Much of this offshoring from the 2000s gravitated towards China, which helped facilitate its rapid economic rise” (Barbe, Andre & Riker, David, 2018, pg 7). The rising dominance of China in port infrastructure and shipping services has sontrgly impacted China’s growth in the global economy and political influence (Noorali, Hassan & Ahmadi, Seyyed & Flint, Colin, 2022, section 1). Now, the U.S. is in a great power struggle with a country it has heavily invested, as well as its MNEs. This paints the overall picture that American manufacturing offshoring facilitated the economic and political rise of China, which reinvested much of its wealth into global manufacturing, maritime logistics, and port operations capabilites. Now, this very partner is threatening American hegemony, which has forced the U.S. to reshore away from China and mostly into surrounding Asian states. However, China’s wealth,

dominance in rare-earth minerals, port infrastructure, and international investment have become powerful geoeconomic tools to wield against American foreign policy interests. It has also made it difficult for the American government to convince American MNEs to relocate to friendlier countries, which is a key part of President Biden's Indo-Pacific Economic Framework. In addition, China has been a major foreign investor in the Indo-Pacific and is arguably just as influential as the U.S., as all East/Southeast Asian and Pacific states rely on Chinese investments for growth. Thus, even though the United States has a lead in overall military capacity, it is losing the geoeconomic war where China still leads in commercial logistics and investment capabilities. This poses a significant problem for the U.S. and its allies where China is able to continuously attempt to undermine their resiliency or determination to counterbalance China through geoeconomic strategy.

For the U.S, China is quite formidable and a nuclear power, which makes it near impossible to justify preemptively striking them or taking the same approach used for the invasion of Iraq/Afghanistan. It is also unknown whether or not China will invade Taiwan, especially after Russia's failing invasion of Ukraine. So, it is quite reasonable to assume that the Cold War will remain as such and the great powers involved will continue to compete in the long term. In the first Cold War, the Soviets never invaded West Germany as they claimed they would and so both sides spent 40 years competing for advantages against each other. It is quite reasonable to assume that history will repeat itself, when the consequences of war between two great powers with nuclear weapons are quite high.

From a theoretical perspective, this thesis's Hybrid Approach (sub-theory to the following three theories) can tie together into three different theories/perspectives and two existing foreign policy strategies. One is Alfred Thayer Mahan's work on the "Influence of Seapower upon

History", which highlighted the critical nature of commercial and military seapower for American economic development and power projection. Mahan's theory would become pivotal to U.S. foreign policy both in the past and present. His extensive focus on regional geography to assess their strategic importance is quite important for military strategies like America's Containment Policy and Strategic Basing.

Similarly, these issues directly relate to Nicholas Spykman's Rimland Theory who also asserted that America was in position to replace Great Britain and its Royal Navy, as the global superpower. In addition, Spykman asserted that the Rimland, not the Heartland, would be the pivotal zone of competition for great powers. This Rimland stretched from the northern coasts of the European mainland, to the Mediterranean coasts of Europe, to the coasts of the Arabian Peninsula, to India, to Southeast Asia, and then finally up towards China and Japan. By utilizing a powerful naval influence over the Rimland, Spykman believed the Heartland could be contained on all sides (See Graph 3). His views were developed for the Cold War and were influential on American foreign policy's containment policy. Therefore, Now, it becomes increasingly clear from China's economic/political rise, continued rise in European integration and development, and a growing India that Spykman's Rimland Theory has become increasingly accurate compared to Mackinder's Heartland Theory. In addition, America's focus on naval dominance appears to have paid off which validates Spykman's views that naval dominance was essential (especially for the United States) to control the Rimland.

The third potential theoretical approach for basing this Dualism Theory into is Zbigniew Brzezinski's work the "Grand Chessboard Strategy". In addition, it could be interchangeably inserted into Kissinger's geopolitical strategies, but for the sake of brevity Brzezinski will be the final geopolitical grand-strategy. Brzezinski highlights in his work that the United States is

uniquely suited to develop its own superpower policy, should it control the Eurasian landmass (similar to Spykman's Rimland), and the development of a Trans-Eurasian Security System (Schmidt, Helmut, 1998). However, Brzezinski's works were written in 1997 after the collapse of the Soviet Union. At this time, China had been cooperating with the United States, but is now its main rival. Thus, the theory would have to be adjusted to create a new global triangle to contain the Sino-Russian-Iranian alliance. This triangle could consist of NATO/European Union, Middle Eastern/Indian subcontinent allies (Saudi Arabia, Israel, & Turkey), and allies from East Asia/Southeast Asia/Indo-Pacific (Japan, South Korea, & Australia). The Trans-Eurasian Security System and the attempt to create an alliance system that connects East Asian allies to NATO directly aligns with the geoeconomic purpose of this thesis, with the exception that Brzezinski's original Triangle diplomacy(China, Japan, & Russia) (Brzeznski, Jbigniew,1997, pg 63).

This thesis differentiates itself from the previously mentioned theories/strategies by focusing largely on developing corporate growth strategies with the intent of empowering geoeconomic and consequently geopolitical interests within American grand-strategy. Also, the approach creates a Centrist style base framework the government and its MNEs can operate from, by coordinating geoeconomics with geopolitics. The thesis is less focused on the nature of global geopolitical theories (political geography) about geographic determinism or geostrategy. It does attempt to connect the dots between global grand-strategy theories rooted in Geopolitics and the key pillars of American geoeconomic strategy which are its strategically important MNEs like SpaceX. By doing so, a better multi-domain geoeconomic and geopolitical competition can be developed that ensures the long-term resiliency/security of both the federal government's and private-sector's ability to compete. This long-term ability to compete in multiple geostrategic

domains in a long period of time requires MNEs/American government to have secure supply-chain networks, secure digital/satellite infrastructure projects via alliance building, and secure access to critical resources.

All three of the aforementioned theories have become important for understanding two key strategies of American foreign policy, which this thesis aims to support with geoeconomic strategy. The first strategy is Containment Policy, which was developed during the Cold War to contain Soviet and communist influence. This strategy remains relevant because the military and political infrastructure developed for it and WWII, still remain active and have even been expanded. NATO and enduring alliances with South Korea and Japan are prime examples of the surviving and now growing Cold War systems.

The next American foreign policy strategy that works in conjunction with Containment Policy is Strategic Basing. Strategic Basing is an enduring concept of establishing military bases or "installations" in exchange for security guarantees, financial partnerships, coercion, and other forms of bartering. Many empires have used this strategy, but none so poignantly as the U.S. in the 20th-21st centuries (Harkavy, Robert, 2016, pg 1). This directly plays into Mahan's Influence of Seapower Theory and Spykman's Rimland Theory. Borrowing from the three geopolitical theories and the two foreign policy strategies allows for the flexible Dualism Theory, which the thesis attempts to develop as a coordinated international expansion strategy for strategically important MNEs like SpaceX, in conjunction with American geoeconomic and geopolitical strategies. This application of American grand-strategy to strategically important private-sector MNEs like SpaceX, the U.S. can more effectively insulate itself and its allies from Sino-Russian geoeconomic manipulation that threatens to undermine American hard-power geopolitical

approaches of Containment Policy and Strategic Basing. Now, the second aspect of the thesis can be elaborated upon, which are the international opportunities for SpaceX's growth.

II. Current Cold War Geopolitical & Geoeconomic Overviews by Key Regions

Europe

History and Contemporary Setting

Prior to World War II, Europe had largely been ravaged by war and was politically/economically fractured and diminished. Europe's status as a center place of international trade and development had been diminished. The region's economic stability remained problematic for much of the Cold War with few exceptions. To make matters worse, the second most powerful military in NATO, Great Britain, was barely managing economically with the help of the United States. As a result, the financial burdens of NATO largely rested on America, while Great Britain consistently tried to save money by cutting military expenditures. Another massive problem for Europe was its division between the American and Soviet spheres of influence, that had developed from their race to Berlin in World War II. This race to conquer

ex-German conquests and race to Berlin would rapidly develop into the Cold War, which Europe lay at the center of this global competition. While these times are largely reflected of in a negative manner, there were some important positive developments that benefitted Europe in the long run.

One key positive development, was the unification of Western Europe under American influence could be seen as the most important first step in the development of the Coal and Steel Community and in turn the European Union (Petzina, 1981, pg 450-68). Even though the U.S. and some of its European allies had pushed for the deindustrialization of Germany/West Germany, it was opposed by Great Britain (Petzina, 1981, pg 450-68). This turned out for the best as American investments into West Germany would lead to positive reconstruction developments of the West German economy. This would ultimately help West Germany absorb East Germany after the collapse of the Berlin Wall. France, on the other hand, had foregone liberal economic theory and focused on nationalizing almost every important industry. They viewed it as necessary so they could rebuild the basic economic structures in war-torn French regions where normal market forces no longer functioned properly. This put France farther behind in redevelopment in the long run, compared to Great Britain who also received more funding from the Marshall Plan (crs.com, 2018, Figure 1). However, there was one thing that France had over Germany/West Germany at that time, and it was political favor. Prior to WWII, the most important coal and steel production sites in Western Europe were in the West German regions of Saarland and Ruhr valley. After the war, Ruhr Valley had been made an autonomous zone against the will of the French who wanted it as reparations from Germany. However, there were also key political and security reasons for French acquisition and influence over these two regions. These were economic capacity and most importantly military capacity. For Germany to

rise again as a military power it needed control over both the coal and steel production from those two regions. This would ultimately become the focal point of the first set of European integration plans…the European Coal and Steel Community (Hoerber, 2022, pg 450). As Europe attempted various integration policies, French scholars/leaders like Schuman and Monnet required supranational supervision and coordination of the coal and steel industries of six European states (Hoerber, 2022,pg 463). With this framework and tentative security guarantee completed, further integration attempts by the most powerful Western European states could begin. Ultimately, this would lead to the rise of the European Union and with the collapse of the USSR, Europe went from being a zone of great power equalibrium, competition, and gateway region to its own economic pole in the international community, whose security was guaranteed by the U.S. With France, Germany, and Great Britain being in alignment with each other, Europe was poised to unify and be free of devestating great power wars. Decades later, the previously war-torn states of Germany and France have resurged in economic and political might, which has allowed this Franco-German alliance to become the core of European Union politics.

This historical understanding of the modern Franco-German "Alliance" as the core of EU politics is essential for understanding the current geopolitical and geoeconomic issues in the EU. However, the Franco-German Alliance are not the sole developers of European Union policy. States like Italy, United Kingdom, Poland, and Spain are also prominent actors in terms of influence potential via EU political representation (EURACTIV, 2009). According to EURACTIV and Qvorum, "Germany tops the list with 146.8 points, some distance ahead of second-placed France, which has 119 points. In fact, the report found that Germany is over-represented vis-à-vis France, Italy, and the UK, as these countries currently hold the same voting

weight under the qualified majority voting (QMV) rules of the Nice Treaty. Indeed, Germany has secured an unprecedented four committee chairs and eight vice-presidencies and holds three political group presidencies and another three group vice-presidencies. Clear examples of under-representation vis-à-vis member countries with similar populations are Spain (in comparison to Poland) and the Netherlands (which is at a disadvantage compared to Belgium, Portugal, Hungary, Sweden and Austria) (EURACTIV, 2009). These influence potential rankings run similarly in their rankings among the top six with the funding contributions to the EU for 2020: Germany 28 billion euros, France 23.6 billion euros, United Kingdom 17 billion euros, Italy 16.5 billion euros, Spain 11 billion euros, Netherlands with 5.8 billion euros, and Poland with 4.8 billion euros (Statista, 2021). From this data, it can be reasonably assumed that the most influential states in Europe are Germany, France, United Kingdom, Italy, Spain, and Netherlands/Poland. If it is assumed that France and Germany remain united and solve their differing views of strategic autonomy, then this leaves five other states whose views on strategic autonomy and foreign policy must be addressed. As a result, it has been difficult for the EU to develop comprehensive foreign policy approaches due to the conflicting interests of its member states, even amongst Germany and France. For EU foreign policy, there are three primary stages of development for the current geopolitics/geoeconomics policies of the EU in their foreign policy evolution. In addition, each of these stages has changed EU policies towards international politics at a geopolitical and geoeconomic level. The first stage in a post-Soviet Europe was the enlargement phase of the EU and NATO from 1990s to 2014. Even though the EU would expand in membership, its foreign policy approaches were still fragmented. In this stage, there was still widespread Euroscepticism and a weak EU organization, which forced European powers to focus on internal development. This phase was referred to as the time “Europe stepped out of history”

(Gruyter, Carolline, 2023). The next stage in post-Soviet EU development was from 2014- 2022. This new stage in foreign policy development and the evolution of the "Geopolitical EU" was spurred on by Russian military intervention in Ukraine, as well the annexations of its eastern lands. In this stage, the EU would become increasingly united on specific foreign policy issues like punishing/countering Russian aggression, looking for new trade opportunities in Asia/Africa, as well as reducing its Russian energy dependence. However, at this time many EU states disapproved of taking anti-Chinese investment/political approaches promoted by America from 2012-2016. While the EU would begin to take security precautions/measures against Chinese technology investments into the EU because of security and unfair trade practice concerns, their alignment with the U.S. on China would not fully manifest into policy until 2019-2020 (Europarl.eu, 2019). These concerns over unfair trade, investment, technological security issues with China would increase during the current third stage of foreign policy development for the the EU. This third stage would roughly begin with the second Russian invasion of Ukraine in 2022. While sanctions had been steadily increasing since 2014, the 2022 invasion would herald in stronger punishments and anti-Russian/Chinese foreign policies. Now, the EU has gone so far as to relegate Chinese digital infrastructure investments and control to peripheral economic uses (Clasen, 2023).

Ultimately, these aforementioned key events have helped the EU justify to most of its members the need for comprehenive Strategic Autonomy. The foremost geopolitical and geoeconomic issues Srategic Autonomy attempts to address are: energy independence from Russia, critical-resource independence from China/Russia, consolidating EU's approach to American Containment Policy against China, securing NATO/EU members from further Russian threats, cooperating/competing with U.S. in space, balancing its competitive/cooperative

relations with U.S in economoics and international politics, and expanding EU influence into Africa/MEINA regions for trade/energy projects. For now, the EU regional powers remain largely committed to NATO and trans-Atlantic cooperation on foreign policy matters regarding Russia and China (Gruyter, Carolline, 2023).

Important Trans-Atlantic Divides and Geopolitical Issues

Although the trans-Atlantic partnership has become more unified in recent years, relations between America and its European NATO allies has seen major hiccups or fractures in relations; which have not been seen since the height of the Cold War when France threatened to leave NATO or when Great Britain, France, and Israel attempted to take over the Suez Canal against the wishes of the American government. One major recent event where the EU interests/aspirations fractured trans-Atlantic relations was the second Gulf War between the U.S., Afghanistan, and Iraq (Gordon, 2005). Many European powers, aside from Great Britain, opposed this war (or felt misled about it) and it is one of several non-economic breaks in international policy between the U.S. and EU. France, in particular, would list this as a key reason for their version of Strategic Autonomy that comes at the cost of U.S. influence (Gordon, 2005). Another source of contention in trans-Atlantic relations is the approach towards China. For the U.S., China is the biggest threat to its hegemonic influence, not Russia. For the European Union, Russia, not China, is the biggest threat to its growth and influence. The EU, prior to 2022, had rapidly developed its bilateral economic relations with China, so this new Cold War would hinder the economic progression European-Chinese investments had created. Similarly, China's expansionist rhetoric/positioning poses little direct threat to Europe, so some European states see it as self-sabotage to side fully with the U.S. on the matter of

Chinese containment. While it should be noted that these older disagreements between EU NATO members and the US have subsided in the last couple of years, long-term investment plans by the U.S. and SpaceX must be flexible enough to account for a future resurgence in trans-Atlantic foreign policy disagreements that have been put on hiatus.

Another geopolitical concern among European NATO members was Great Britain's Brexit movement. Brexit came as a shock to various scholars as many saw the negative economic complications as far greater than any of the supposed political benefits. The issue of Brexit has been quite contested within the UK and the ambiguity of how the British government plans to ccomplish its political/economic goals (Peters, 2021). According to the British government, several generalized goals were established: become a leader in science & technology development, develop integrated commercial/military space policy, refocusing on the Indo-Pacific region for trade and security, and a host of other security oriented goals aimed at detering Chinese aggression (Peters, 2021). While Great Britain will still maintain a strong role in European affairs, it becomes clear that Britain is rebalancing its strategic priorities from Europe to the Indo-Pacific (Peters,2021). This post-Brexit Global Britain movement which started as early as 2017, appears to operate in alignment with US foreign policy goals that shifted from its global War on Terror to its Pivot to Asia from 2011-2015. Thus, it seems reasonably clear that Great Britain has prioritized its relations with the US and the emerging trade/economies of the Indo-Pacific it has connections to over further European integration.

Another minor, but important source of worry (prior to Russian 2022 invasion) is the European Union's goal Strategic Autonomy. The American and British pivoting to Asia, amongst other political issues, has increased the perception for more Europeans that America may not be as reliable for security and economic partnership, as it has been in the past (Krastev

& Leonard, 2021). This has led to the popularization of strategic autonomy for Europe, which consists vaguely of three views: (1) Autonomy from other powers, (2) Autonomy to conduct operations, (3) Both one and two (Franke & Varma, 2019). However, French ambitions for Strategic Autonomy seem to call for a decoupling from the U.S and it is uncertain how much Germany would be willing to cooperate on such a scheme (which it has not supported historically). For France and Germany to be able to expand their influence over the EU at the expense of the US, they must convince other European regional powers to support them. This is where it becomes difficult for France to do so. Currently, there is little consensus across Europe of the scope and purpose of pursuing strategic autonomy (Franke & Varma, 2019). One consensus for strategic autonomy is the desire for overall increased capabilities to prevent becoming irrelevant or another zone of great power competition like the last Cold War (Franke & Varma, 2019). According to Franke & Varma, polling indicates "in 17 EU member states, ESA efforts' implications for the relationship with the US is one of the leading issues of debate – coming before those such as ESA's implications for foreign policy and defense capabilities" (Franke & Varma, 2019). While most of the Europeans polled believe European strategic autonomy works with NATO and not against it, they also acknowledge that France has been the primary proponent of European Strategic Autonomy. This is where the suspicions arise for the United States. Since the inception of NATO, the US and France repeatedly clashed over NATO policy and scope of operations. Particularly under De Gaulle, the French would repeatedly threaten to leave the NATO framework if they were not consulted on: all matters of developing NATO operations, if the US did not support their desire to use NATO in Africa to protect French interests, and if NATO did not create global strategies that included French interests (Sayle, 2019, pg 45-48). Under President Macron, he has openly stated "Strategic autonomy means

having convergent views with the United States, but whether on Ukraine, the relationship with China or sanctions, we have a European strategy" (Scheffer & Conley, 2023). Additionally, President Macron has been criticized for his attempts at negotiating peace deals with Russia, complimenting President Putin, his troublesome remarks over Taiwan while meeting President Xi, and discussing increased relationships with China and dismissing US involvement over Taiwan (Scheffer & Conley, 2023). All these events and speeches give a clearer picture to the US that either France is playing hardball trying to use relations with Russia and China as a bargaining tool for supporting other French interests, or France is serious about de-risking with the US over China. For the US, these approaches from France are unacceptable as losing Taiwan would severely impact trade and security (Scheffer & Conley, 2023). Such statements and maneuvers by President Macron have drawn strong criticism from both the US and other fellow EU states, which threatens to undermine the EU's development of strategic autonomy and trans-Atlantic relations (Scheffer & Conley, 2023). President Macron has recently fallen back in alignment with the American and EU agenda for stronghanded approaches to Russia, but the seeds of doubt have been sown. In addition, France's history of being a wildcard in NATO/EU relations, as well as strong euroscepticism in its population paints a negative picture of French reliability in foreign affairs. Their "my way or the highway" approach to international politics has left a bitter taste in the mouths of their partners (Puglierin, 2020).

With Britain and America are focusing largely on Asia, this opened up more opportunities for European states to step up in influencing EU affairs. At the core of European politics in the early-mid 2000s are the Franco-German alliance, Italy, United Kingdom, Poland, and Spain in terms of influence potential via EU political representation (EURACTIV, 2009). According to EURACTIV and Qvorum, "Germany tops the list with 146.8 points, some distance ahead of

second-placed France, which has 119 points. In fact, the report found that Germany is over-represented vis-à-vis France, Italy and the UK, as these countries currently hold the same voting weight under the qualified majority voting (QMV) rules of the Nice Treaty. Indeed, Germany has secured an unprecedented four committee chairs and eight vice-presidencies and holds three political group presidencies and another three group vice-presidencies. Clear examples of under-representation vis-à-vis member countries with similar populations are Spain (in comparison to Poland) and the Netherlands (which is at a disadvantage compared to Belgium, Portugal, Hungary, Sweden, and Austria) (EURACTIV, 2009). These influence potential rankings run similarly in their rankings among the top six with the funding contributions to the EU for 2020: Germany 28 billion euros, France 23.6 billion euros, United Kingdom 17 billion euros, Italy 16.5 billion euros, Spain 11 billion euros, Netherlands with 5.8 billion euros, and Poland with 4.8 billion euros (Statista, 2021). From this data, it can be assumed that the most influential states in Europe are Germany, France, United Kingdom, Italy, Spain, and Netherlands/Poland. If it is assumed that France and Germany are united on their views of strategic autonomy, this leaves five other states whose views on strategic autonomy and foreign policy must be addressed.

Another contentious socio-political issue in EU politics is the division between Progressives and Conservatives. While Western Europe saw similar divides in its culture/political philosophy, the rapid inclusion of Central and Eastern European states after the Cold War exacerbated this cultural divide quite heavily. Regardless of one's views on the matter, it is clear that the more progressive Western European states have a significant advantage in codifying their moral views in the EU legal framework, compared to the more conservative states (Puglierin, 2020). These progressive social assertions are largely one directional going West to East (Akhmadi, 2022). There are some exceptions and it varies by state, but for many of the post-Soviet states

who suffered greatly under communism, building their national identity around ethnicity, religion, and family values/loyalty was integral; since most of those had been either cut down or horribly manipulated by the USSR. The severity of this issue varies by state, but has become a major thorn in the integration process of European states as Western European states seemingly refuse to back down from their position and conservative groups have used this as fuel for their calls to sovereignty and individualism at the state level (Polomarkakis, 2022, pg 121). Additionally, Russia is rebranding itself as a "Bastion of Conservatism" based on a mixture of Slavic nationalist and Russo-Byzantine values in an attempt to increase favorability from more conservative groups (Galstyan,2016). However, the Russian invasion of Ukraine appears to have backfired significantly by increasing NATO unity and support for anti-Russian countermeasures like: sanctions, military support to Ukraine, support for Ukrainian EU candidacy, and enhanced NATO defensive posturing (Kampfner, John, 2023, section 2). While this cultural issue may seem irrelevant, it has been one of several major ways of spreading Russian propaganda by playing on EU skepticism and anti-progressive political sentiment amongst conservative groups (Zerka, Pawel, 2023). It is in the America's and SpaceX's to position themselves as an ambivalent telecommunications and investment option to undermine Russian attempts at exploiting European political philosophy divides. By remaining a largely economic influencer and maintaining a hands-off socio-political role, the US can maintain a strong presence in more economically and politically vulnerable states as a profitable alternative to Russia.

Trans-Atlantic Geopolitical Cooperation

As previously alluded to, the threat of Russian aggression is at the forefront of European geopolitics, at the moment. The backfire in public perception for Russia is so great that Europe, with few exceptions like Hungary, have largely united in their efforts to support Ukraine and stifle Russian expansionism (Kampfner, John, 2023, section 2). In 2014, it was difficult for the U.S. to convince EU members to sanction Russia across the board, especially in regard to energy sanctions (Prokip, Andrian, 2022). However, that is no longer the case as Europeans have tried to maximize their ability to sanction and isolate Russia, while also maximizing support for Ukraine (crs.gov, 2023). Because of this backfiring, NATO cooperation has grown into other geopolitical domains aside from Russian Containment Policy like: pro-Ukrainian movements and EU/NATO inclusion, NATO acceptance of Finland & Sweden, and increased cooperation in outer space.

A major win for NATO is the inclusion of Sweden and Finland into NATO (Black, 2023). This expands NATO containment capabilities further into the Baltic Sea lanes and along Russia's northwestern borders (Black, 2023). Also, Finland offers a powerful land-based army with very strong artillery capabilities that offer strong defensive capabilities, as well as their Comprehensive Security (Black, 2023). Instead of focusing on a small professional army, both Sweden and Finland utilize universal conscription methods to develop basic military training amongst the majority of its population (Black, 2023). The inclusion of Sweden and Finland into NATO could be a turning point in Arctic expoloration and exploitation, as all the Arctic Council members are part of NATO (except for Russia).

Another important source of cooperation is over the Ukraine conflict. For example, NATO has facilitated the international support and supply arrangements for Ukraine, pledged over 500 million euros, combat rations, fuel, army uniforms/clothing, medical supplies, military training,

explosive ordnance disposal equipment, tanks, firearms, various missiles systems, drones, and counter-drone equipment (nato.int, 2023). In addition to military/financial support, there have been calls to replicate the Marshall Plan and long-term military assistance for Ukraine (Blinken, 2023). Similarly, even SpaceX inolved itself in Ukraine by providing their satellite services to 150,000 civilians and military officials within twelve hours of Ukraine‘s request (Jayanti, 2023). The combined military, financial, and logistical support for Ukraine has hada profound impact on their ability to combat Russia. In addition, it seems Elon Must has walked back claims that Starlink services would not be allowed for offensive operations into Russia (Jayanti, 2023). Thus, it seems like Ukraine could be a long-term home and opportunity for SpaceX whose services are being paid for by the U.S. government, especially since Ukraine's digital infrastructure has been destroyed by Russia (Jayanti, 2023).

The next important source of trans-Atlantic geopolitical cooperation is in outerspace. Outer space operations are complex web of competition and cooperation at the corporate level. However, there is less competitive complexity and a stronger focus on cooperation when it comes to multilateral space agency cooperation. There are several key forms of trans-Atlantic cooperation in space. The first is NATO's 2019 Space Policy and establishment of NATO Space Centre at Allied Air Command in Germany (nato.int, 2023). The development of this policy and multilateral cooperation was to boost NATO capabilities for: positioning, navigation and timing, early warning capabilities, environmental monitoring, secure satellite communications, intelligence gathering, surveillance, and reconnaisance (nato.int, 2023). Similarly, the U.S. has other strategic space programs/partnerships/agreements like: 2031 Combined Space Operations, Five Eyes (which only includes UK from Europe), International Space Station, Artemis Accords, various NASA/ESA programs, and a general cooperative practice of NATO members utilizing

other states' corporations for space services (Ganote, 2019). Such practices of cooperative multilateral contract awarding to each states' own companies (I.E: UK hiring SpaceX or arranging partnerships with its companies and vice-a-versa) could prove essential for further alliance building among all of America's allies. However, this is complicated by the complex web of corporate partnerships amongst space companies, that also runs parelell to their competition with each other. There is also quite a bit of unseen politics that makes it difficult to sort. For example, the French government's High Court moved to revoke SpaceX's internet service provision license in France because of "monopoly concerns" in 2022 (Pultarova, 2022). However, President Macron would invite Elon Musk, corporate leaders from Pfizer and Morgan Stanley to France for private discussions on investing in France (Rose, 2023). Thus, there seems to be a complex mixture of competition and cooperation amongst NATO allies and there space corporations.

Ultimately, a brief summary of EU geopolitics contains four key elements that work in conjunction with the geoeconomic issues in the next section. The first element is managing trans-Atlantic relations with the U.S. through both EU organizations and NATO. Second, is the focus on collective security against Russian aggression and support for Ukraine. Third, is the precarious balancing act of cooperating/profiting from EU-China trade, while also preventing China from gaining geoeconomic/political leverage over the EU. In addition, EU states are agreeing with the U.S. to relegate Chinese technology investments to a secondary role and not allow them to control/manage critical infrastructure. Another recent development is the EU decision to limit EU companies from giving China access to their sensitive technologies. Overall EU-China relations have seen stagnation and it appears the EU is trending closer towards supporting the American China Containment Policy. The fourth element of EU geopolitics that

overlaps with geoeconomics interests is the strong focus on Africa/MEINA regions for trade, energy, rare earth minerals, and stabilizing regional security.

EU Geoeconomics

EU geoeconomic issues are almost identical to the geopolitical issues and directly correlate to them. The EU has consistently made strong efforts to modernize their land transportation systems, port infrastructure, maritime shipping capabilities, and digital infrastructure/commercial space services to enhance their global economic influence (EU Commission, 2023). Another key aspect to EU geoeconomics is the restructuring of energy infrastructure/supply-chains away from fossil fuels and Russian energy suppliers (Criekemans, 2021). Russia has long been a primary energy supplier to Western Europe/EU since 1953 as the USSR and accounted for 38%-60% of EU energy imports (Prokip, 2022). Since the early 2000s Russia has engaged heavily in geoeconomic strategies using Energy Diplomacy in Europe, which has recently been acknowledged as energy blackmail (Prokip, 2022). This Carrot and Stick Strategy employed by Russia has been essential for manipulating EU politics. Russia would keep energy prices low when states cooperated, but if they were belligerent on important political issues Russia would revisit energy prices and debt discussions (Strzelecki, 2015). Now, Russia has amassed 63 billion euros from energy sales to contribue to the war effort (Prokip, 2022).

In addition to its troubled energy politics, the EU also has a problematic reliance on Chinese rare earth minerals that has been used against them and other regions for political purposes (Demarals, 2023). Also, China produces/refines 90% of global rare earth minerals, owns Europe's only rare earth refinery, and accounts for 98% of the EU's rare earth mineral supply (EU Commission, 2020). As a result, the EU and various European powers like France, Sweden,

Germany, Spain, and Portugal have promoted new mining projects to reduce their dependence on China (Zimmerman, 2023). However, there are still major hurdles to overcome like environmental activist opposition and legal barriers that cause permits to take 10 to 20 years (Bassetti, 2023). The EU expects demand for critical-minerals to increase tenfold by 2050 and hopes to have made progress in reducing its reliance on China by then (European Commission, 2020).

The next major geoeconomic focus for the EU is in outer space technologies and services. For the EU, "space is a geopolitical realm that is increasingly dominated by the United States, China and Russia and they are increasingly investing in space for national security concerns as well as economic competitiveness. Second, space is a technological frontier and the space sector is presently subject to rapid technological shifts" (Fiott,2020, pg 5). The European Parliament makes it clear that the geostrategic outer space domain is essential for EU Strategic Autonomy for both commercial and military developments. As a result they have focused on developing new space startups and reforming space policies to effectively consolidate member states' efforts. However, ESA funding and contracts are still dominated by several states and their largest companies. In the ESA, "the European space industry contributes about ten percent of the European aerospace effort. In 2009 the European space manufacturing sector earned € 5.47 billion and employed 32,851 people. The six largest ESA members, France (13,017), Germany (5,065), Italy (5,100), UK (3,186), Spain (1,971) and Belgium (1,123), represented 90% of the total" (Hayward, 2009). By 2020, these still lead the way in ESA contributions and funding (esa.int, 2023). Whether it is correlation or causation, the countries whose companies win the most contracts are almost identical to the list of financial contributors to ESA and EUSPA (Parsonson, 2023). By 2015, the EU space economy employed 230,000 professionals, generated

46-54 billion euros, and their satellite industry accounted for 79% of value for the global space economy (Evroux, 2022, pg 4). In addition, space services enable 10% of the EU's GDP (Evroux, 2022, pg 4).

A key point of recent space policy has been to better coordinate member contributions and goals within the EU space policy framework. A main reason for it, is "the fragmented nature of European space governance has caused political and technical inefficiencies throughout the years, due to the fractured biased and unilateral space vision of the actors involved as well as the duplication of programmes. Despite the further integration of the European space industry being amongst the main goals of the EU as well as the ESA, and despite the recognition of the need for more meaningful international cooperation in space amongst their member states, European space governance and policy is not unified, neither externally nor internally" (Caraveo, Patrizia & Lacomino, Clelia, 2023).

The issue of EU fragmented policies, in multiple sectors, may be a key reason why the U.S. has largely focused on bilateral treaties, rather than targeting EU level strategies. U.S.-EU trade also validates this point, as there was only one major U.S.-EU trade framework developed. However, it would eventually be dropped in the early 2000s. Almost all of the agreements at the U.S.-EU level are councils/forums like the Trade and technology Council or Transatlantic Economic Council where officials gather to discuss areas of cooperation (US DoS, 2023). As mentioned previously, France and Germany robust space programs and bilateral cooperation via government agencies and corporate alliances. If SpaceX were to come in and consistently beat out these top EU companies, it could negatively impact their views on American companies and ultimately regional public perception. Thus, the strategies and solutions proposed in the next section Targeted States for the Hybrid Approach will focus heavily on bilateral opportunities,

especially for bilateral partnerships to mitigate the rise of anti-American sentiment. It would also allow for a smooth continuation of existing foreign policy approaches, rather than trying to rebuild all approaches and strategies from scratch. Thus, the first part of the following strategy must succinctly highlight American foreign policy interests in the regionAs previously mentioned, the following European opportunities will focus on three key aspects of SpaceX's corporate grand-strategy: (1) securing critical resources, (2) boosting supply-chain resiliency via multi-domain transportation/infrastructure opportunities, (3) a strong focus on political or economic satellite/digital infrastructure opportunities. These three foci have previously been highlighted as essential for both governments and MNEs, so it makes sense that there is a continuity in interests and approaches. After these corporate-geoeconomic opportunities have been highlighted, it is essential to show how this ties into a geoeconomic strategy that supports American geopolitical interests in Europe regarding (1**)** American containment strategies and (2) American Strategic Basing.

Targeted European States for Hybrid Approach's Strategy

As previously mentioned, the following opportunities for SpaceX will target three key types of opportunities: (1) Securing critical-Resources, (2) boosting multi-domain supply-chain resiliency via multi-domain transportation and infrastructure investments, (3) Digital infrastructure, satellite services, and launch services for political and/or economic gains. Some projects may have more political linkage/influence value than economic value. As mentioned earlier in theory section, there will be a primary focus on individual country opportunities and non-great power investments. While there are lucrative investments into states like Germany or France, there are several reasons why they will not be focused on. First, these states already have developed commercial space sectors, so there is less known market potential with existing

commercial technology. These advanced states, particularly France and Germany, have industry leader companies in the EU. This makes market penetration by SpaceX harder to achieve and actualize due to capable pre-existing competition that has strong domestic political connections. Also, there are more technical related problem with regards to SpaceX-Arianespace or SpaceX-Airbus/Safran cooperation for launch services. These EU companies developed their satellites and payloads based around much largers Russian R-7 launch rockets, whereas SpaceX focused on miniaturization of satellites and launchers (Hepher, 2022). All these issues limit the potential partnerships to short-intermediate term lengths, until replacements for Russian rocketry by EU companies be achieved. As a result, it is more suitable for SpaceX to target states with less developed space programs or lack thereof. By doing so, it can play a stronger role in nurturing the partnership's development for long-term benefits. Thus, the primary states that will be highlighted are Spain, Sweden, Italy, Denmark, Norway, and Ukraine.

Spain

There are two key financial incentives that target two of the three key types of economic opportunities previously listed. The first one is digital infrastructure projects and partnerships in Spain. Spain has been utilizing both American and Chinese technology and digital infrastructure investments. However, due to digital security concerns with Chinese technology, Chinese technology like Huawei have been relegated to peripheral economic uses (Frackiewicz, 2023). Additionally, the Spanish governments Digital Strategy 2025 have provided Starlink with the opportunity to enter the Spanish market and help Spain accomplish its 100% internet connectivity goal (Frackiewicz, 2023). The Spanish government also claims there will be investments up 17.2 billion to accomplish its modernization goals, with American tech companies playing an important role (Trade.gov/Spain, 2022). Spain also participates

extensively with the US on NATO matters and deep space activities like NASA's Deep Space network (State.gov/Spain, 2020). However, Spain has also partnered with Arianespace for launch services for its experimental microsatellites, but technical difficulties and Russian rocketry bans have complicated Spain's PDL (satellite company) ability to achieve its goals (Pinnedo, 2023). Similarly, the ESA handed over two Arianespace contracts over to SpaceX to make up for the delays caused by Russian sanctions in 2022 (CNBC, 2022). Thus, it would behoove SpaceX to utilize its current relationships and competitive capabilities to compete with Arianespace in the Spanish commercial space industry.

The second Spanish commercial opportunity for SpaceX is potential partnerships over rare earth mineral exploitation. Spain has a long history of mining and "is the second European producer of nickel, third in tungsten and fourth in copper and zinc. Spain had the largest known reserves of celestite (Europe's sole producer, ranking second in world production, behind Mexico); was home to the richest mercury deposit in the world and one of the biggest open-pit zinc mines in Europe. Spain was the largest EU producer of mine lead and zinc, and a major producer of pyrites" (Regueiro, Manuel & Barros, Gonzalez, 2020). Similarly, Spain accounts for 31% of global Strontium production (100% of EU production), 6% of EU silicon metal production, and14% of EU Fluorspar (European Commission, 2020). Thus, it can be determined that Spain is a strong investment spot for SpaceX in digital infrastructure projects, critical-resources, and potentially satellite launch services. In addition, it is the ranked 6th in influence potential within the EU (EURACTIVE, 2009).

Sweden

The next opportunity for SpaceX is in Sweden. Several key reasons to invest in Sweden are for political influence, critical-resources, and satellite/launchservices. Sweden's economy relies heavily on imports, which is a primary reason it strongly advocates for free-trade policies (State.gov/Sweden, 2020). As such, Sweden can be a useful ally for SpaceX/U.S. for advancing free-trade policies in Europe, while also blocking French attempts at EU level protectionist policies (Echikson, 2022). Sweden and the United States have long had close cooperation with each other. In addition to cooperating on free-trade policies, Sweden is home to the EU's only mainland orbital launch complex, which could be useful for SpaceX launch services for European customers (Ohlsson, 2023).

Another important opportunity for SpaceX in Sweden is critical-resource access. With regards to SpaceX, Sweden and the other Nordic states are important EU producers of pig iron, iron powder, and other metals (OECD/Sweden, 2023). By creating partnerships with the Nordic countries, SpaceX could obtain multiple iron/steel sources, which largely go to the German market. In addition, Sweden claims to have found the largest European deposits of over 1 million tons of 17 different rare-earth minerals (Khan, 2023). The U.S. is an important trade partner who exports mining equipment and services to the Nordic states, which means there is potential for further collaboration on these new mining discoveries that SpaceX can benefit from (State.gov/Sweden, 2020). Similarly, Sweden is a dependable partner for the U.S. when it comes to Arctic Council and crafting Arctic economic/political policies for the future. The Arctic has become an increasingly important region for mining, energy exploitation, and new maritime shipping lanes. Thus, an American-SpaceX partnership with Sweden would provide significant benefits financially and politically.

Italy

Italy is another crucial partner for the US and potentially SpaceX for digital infrastructure, space services, and political influence. The U.S. and Italy have long-standing political ties through NATO and security cooperation in the Mediterranean. Additionally, the U.S. is Italy's largest non-EU trade partner (OECD/Italy, 2023). While many European states have avoided targeting Huawei or Chinese tech companies with sanctions and discontinuing partnerships, Italy would recently change its position and "aspires to be the main transatlantic gateway to Europe for the US in terms of multilateral space cooperation, a status that would underline the two countries' special bilateral relationship" (Borsari, 2022). As for SpaceX, Italy is 11th in the EU for space venture capital funding and fourth in the number of space startup companies (ESA.int, 2022). This shows that while there is great interest and support for Italian private sector space companies, the funding has not manifested due to various economic issues. Thus, it is a notable opportunity for the US and SpaceX to invest in these Italian companies to nurture their development in ways that can work in conjunction with SpaceX interests in Europe. One important investment opportunity could be SpaceX providing rare earth refinery services and lithium battery supply to Italian aerospace, energy, and car companies. For example, Italy's Enel, is the largest utilities company in the EU and recently stated it was considering the idea of sourcing materials from America because of how much more attractive America's Inflation Reduction is for investment (Landini, 2023).

Additionally, the U.S. could look to subtly increase its support for Italian operations in the MEINA region, particularly in Algeria, so Italy's energy giant does not feel compelled to make a long-term alliance with their French energy counterparts that could serve as a model for further

French-Italian partnerships. This Italian partnership in Algeria could potentially provide access to 60 million tons of iron ore deposits, 2 billion tons of phosphate, 3 million tons of manganese in one of the known deposits (Gouami, 2022). In addition, satellite service provision to Italian oil/gas infrastructure in Africa could be additional sources of income. Thus, an Italian partnership could prove beneficial for its political and economic benefits, that could scale into other projects in North Africa, as well.

Norway

Norway has been a consistent partner with the US since the founding of NATO and both enjoy strong trade relations. “Norway co-leads with the United States on the Green Shipping Challenge, is a partner in the Minerals Security Partnership, and was one of the first countries to join the First Movers Coalition to accelerate the development of markets for new, sustainable technologies in hard to abate sectors like shipping, aluminum, steel, and fertilizers. In addition to FDI, a substantial portion of Norway’s Government Pension Fund Global is invested in U.S. equities, fixed income, real estate, and renewable energy infrastructure. The fund is the second largest in the world, owning on average 1.5 percent of 9,000 companies listed globally, 43% of them from the United States” (State.gov/Norway, 2023). In addition, Norway is the largest supplier gas to the EU in 2022 (State.gov/Norway, 2023). It becomes clear that Norway’s strategic value to the US is substantial and vice-a-versa. Even for SpaceX, Norway could provide a secure source of rare earths, steel and gas. In 2023, Norway found massive rare earth mineral deposits with a wide range of critical minerals like 38 million tons of copper and 45 million tons of zinc (Adomaitis, 2023). On top of that, Norway has the 5th largest maritime fleet with 1,783 vessels, which mostly consists mostly of LNG/LPG tankers, car carriers, gas carriers, and cruise ships (trade.gov/Norway, 2023). If SpaceX were to form a partnership with Norway to provide

global satellite communication and navigation services to these vessels with a highend potential of 5.3 million dollars annually (3,000$ annually per vessel) for all 1,783 vessels, as well as the one time fee (2,500 per vessel) of 4.4 million dollars (Starlink.com/maritime, 2023). Similarly, Norway is not a full member of the EU, so there are likely legal ways of backdooring EU regulations by SpaceX. Another opportunity would be over rare earth refining. In Norway and the EU, the permit process for mining facilities and refineries can take 10-15 years (EuroParl, 2020). Also, the EU only has one rare earth refinery (Silmet in Estonia), but its Canadian owner Neon Performance Materials is majority owned by Chinese investment funds (Juris, 2023). Thus, funds drawn upon Estonia's Silmet from the EU CRM, still indirectly contribute to Chinese resource control. This serves to highlight the importance of establishing a multilateral investment bank or organization amongst the three primary European mining states providing to the EU in the future (Norway, Sweden, Finland, and potentially Denmark/Greenland). Similarly, America has made great progress in building multiple rare earth refineries one of which is owned by Tesla (WhiteHouse.gov, 2022).

Denmark

The next important investment spot for SpaceX is Denmark. Denmark offers the ability to contribute to all three economic types of investment: critical-resources, multi-domain infrastructure and transportation investments, and commercial space services. A major economic opportunity for SpaceX is to become Denmark's primary launch service provider. In January, SpaceX partnered with Danish companies and Danish government's investment fund to launch the first Sternula-1 satellite (Dakowicz, 2023). Denmark already has one of the most advanced digital economies, so SpaceX would be able to assist an already thriving digital economy

(Dakowicz, 2023). Similarly, Denmark is home to the 6th largest shipping company that almost carries 10% of global trade (adbc.org, 2022). Similarly, Denmark is pushing to become the maritine center of the EU and developed advanced vessels and practices (adbc.org). Thus, there will be more opportunities for SpaceX to provide more launch services and Starlink maritime sales to one of the worlds biggest shipping giants that has 700 vessels in its fleet (adbc.org, 2022). In addition, Denmark will need further satellite launches as Artic ocean routes open up and AP Moler Maersk seeks to utilize these new trade routes.

The next major opportunity for SpaceX is accessing critical-resources. Greenland an autonomously managed territory of Denmark has been a source of geopolitical competition, as surveyors claim it could be one of the wealthiest rare earth regions (Poulsen, 2022). In fact, both the U.S. government and the Danish government would become fearful of China buying mineral rich land around a retired military installation, so Denmark reopened the military installation to cancel the agreement between a Chinese company and Greenland's regional government. SpaceX and Tesla have opened their own rare earth refining facilities in the U.S., so they might be able to work out a lucrative deal to gain access to some of the minerals in exchange for refining services.

Miscellanious European Opportunities

There are two important general opportunities for SpaceX and the U.S. in Europe. The first is maritime shipping sales and services for Starlink Maritime. The second is Starlink services, digital infrastructure, and launch services in Ukraine. The EU maritime opportunity for SpaceX and U.S., are the upcoming major changes to the maritime shipping alliances that are dominated by European and Chinese companies. The 2M alliance comprising of Denmark's Maersk and Swiss-Italian MSC will end their alliance by 2025 (Maersk.com, 2023). On the contrary, the

Ocean Alliance has renewed its partnership until 2027m which consists of French CMA GMC, Taiwanese/American Evergreen Shipping, Chinese/Taiwanese COSCO, and Taiwanese OOCL. The third shipping alliance called The Alliance consists of German Hapag-Lloyd, Japanese ONE Network, and Taiwanese/American Yang Ming. From this, it should be noted that all the European companies, except French CMA-CGM come from countries with strong economic/political ties to the US or actively support free-trade policies. Similarly, the other major shipping companies are from Asian countries that are close allies of America, except for China's COSCO (which still has strong Taiwanese shareholder influence). Even France's partner Germany, has been reluctant to do anything that would antagonize its economic and political relationship with the United States who is an important economic partner. Thus, it is in the US's best interests to find ways of restructuring the shipping alliances in a manner that reflects the political relationships of their home countries, so they can be used to isolate/mitigate French influence/politicization of international maritime shipping politics. This way, any strong attempts by France to promote EU strategic autonomy around itself and implement EU protectionist policies would result in isolating itself from the other major shipping lines, as these three alliances account for up to 80% of global container cargo shipping (xchange.com, 2022). This would result in decreased profitability and logistical efficiency, which were the primary motivations for shipping alliances (MaritimeEx, 2022). communication and navigation services. Early in 2023, three shipping companies Columbia Shipmanagement (380 vessels), Costamare (114 vessels), Enesel (35 vessels) announced trial runs(Columbia-ship.com, 2023)

As annother example, Maersk operates around 740 vessels, which would result in an annual cost of 2.2 million dollars (250$ monthly) and a one-time cost per vessel of 2,500 dollars amounting to 1.85 million dollars (Maersk.com, 2023). MSC operates approximately 645

vessels, which would amount to an annual cost of 1.93 million and one-time vessel cost of 1.6 million dollars (MaritimeExecutive.com, 2022). Ocean Alliance, not counting French CMA-CGM, operates 219 vessels, which would result in annual revenue of 657 thousand dollars and one-time cost of 547,500 dollars (xchange.com, 2022). The third major shipping alliance composing of German, Japanese, Taiwanese, and Korean vessels has over 250 cargo vessels that carry 30% of the global market's maritime shipping trade (xchange.com, 2022). Fitting them with Starlink navigation would accrue 750,00 thousand annually and a one-time cost of 625,000 thousand dollars. While it is unlikely all three shipping alliances would use Starlink on all their vessels, there is still the potential for an annual revenue of approximately 5.5 million dollars and a one-time payment of 4.57 million dollars. Ultimately, SpaceX could profit quite a bit in sales and services from these maritime contracts. Similarly, these shipping alliances largely dominated by American allies could be reorganized through NATO and AUKUS to ensure maritime shipping remains under the American sphere of influence. Another key reason to do this is U.S. national security reasons. If U.S./SpaceX were to consolidate Starlink Maritime as a dominant sat-com provider, it would allow American intelligence agencies to use the Foreign Surveillance Act 702 and the Patriot & Kingpin Acts to legally obtain information from Starlink about vessel locations and communications (DNI.gov, 2023). This would allow U.S. agencies to more effectively combat maritime illicit drug smuggling, human trafficking, and arms trafficking.

The second opportunity is Ukraine. Prior to the war, Ukraine had a large space program via the government institution Ukrainian Space Agency that had 16,000 employees and produced Zenit rockets and over 100 launch vehicles a year before the invasion in 2014 (Pultarova, 2022). Prior to the war, Eastern Ukraine had an important role in providing space technological services and manufacturing. Some examples are reprocessing of polymeric composite materials, galvanic-

chemical manufacturing, nondestructive testing, and blank production- high quality performing and foundry by directional induration, and assembly-test manufacturing (Zevako,2009). More recently, Ukraine had undergone massive digitalization efforts and had been one of a few countries to implement digital passport systems (Ionan, 2022). However, this has largely been undone by the Russian invasion in 2022. There have been calls to take the West Germany approach to post-war Ukraine and have the United States play a direct role in rebuilding the war-torn country (Conley, 2022). Thus, SpaceX has the unique opportunity to play a direct role the post-war Ukraine reconstruction effort, assuming they continue to succeed in their counteroffensive. Similarly, Starlink satellite services are ideal because it is unkown if Russia would invade again, so it would be more cost effective to use satellite communications than build up expensive 5G ground infrastructure that could easily be destroyed.

Conclusion

In conclusion, SpaceX is uniquely situated to conduct multi-domain investment strategies targeting digital infrastructure, transportation and logistics systems, critical-resource production, and commercial/military space services. Unlike many other states, like Saudi Arabia or China, the United States does not have a federal sovereign wealth fund that it utilizes for politically motivated investments. However, it does have a wide array of other investment tools, one of which is its ability to promote American multinational enterprise investments into other countries. SpaceX is an example of a strategically important MNE that can both profit from international partnerships and American government contracts in critical sectors. These powerful MNEs have a long history of acting as state influencers to promote economic and political

growth in the targeted state to historically aid in developing the Instutional Liberalism approaches to globalization (Blackwill & Harris, 2016). These critical infrastructure parternships with allies feed into elements of Liberal Theory that mutually beneficial bilateral trade, consistent approaches, and similar broad foreign policy attitudes are key factors for growth bilateral political releationships (Kleinberg & Fordham, 2010). A Institutional Liberalism approach would also fall in line with traditional European practices and norms, which would reduce any potential animosity over expanding SpaceX/American influence in Europe. If SpaceX/America were to take a more political realist approach similar to Russia or China who weaponize resource/investment control, it would likely deteriorate relations. After all, the goal is to foster relatively organic private-sector developments in the pursuit of profit and not just political influence/control. These economically beneficial relations would solidify the financial incentive for regional European powers to purse Strategic Autonomy in a manner that supports U.S. foreign policy interests, but it disincentivizes the French version of European Autonomy as an independent-neutral third pole. Bilateral economic investments also increase the funding capacity for EU members to contribute to NATO/EU defense. This allows the United States to focus more resources on China, since it can be more confident in NATO members' ability to defend against Russian aggression and support Ukraine. Similarly, SpaceX partnerships into critical-resources creates economic growth for the host state and SpaceX, while also securing new supply-chains for critical-resources.

Ultimately, this plays into two key aspects of American grand-strategy. The first is American strategy of bartering/negotiating rights for military installations in allied countries (Harkavy, 2007). The second is the American Contaiment Policy for Russia and China. As highlighted in previous segments, Russia has largely relied on geoeconomic strategies revolving

around infrastructure investments and their Carrot and Stick Strategy for energy policy. By facilitating trans-Atlantic economic cooperation, it reduces the effectiveness of these political realist geoeconomic strategies by Russia. Similarly, it reinforces positive socio-political perceptions for the U.S., while hurting socio-political perceptions for Russia as it clearly distinguishes the two. With such positive perceptions of America and its corporations, it could make it easier to negotiate for military installations and MNE investment opportunities. Currently, this view of utlizing positive trade and political relations seems to be validated by the fact that most American bases in Europe/NATO are in Germany, UK, Italy, Turkey, Denmark, and Norway (nato.int, 2023). All these states have strong political and economic relations with America. For example, Sweden has long enjoyed strong economic relations with America and had worked a deal to host military bases before they had been accepted into NATO. Similarly, NATO states with lower economic and political relations, like France, have really low U.S. military bases because of poor relations and mediocre trade relations.

Consequently, strong investment strategies by SpaceX with the assistance of the U.S can support American geoeconomic and geopolitical interests. First, these economic relations strengthen the economic bond between the U.S. and its EU partners. Second, it builds up the economic, supply-chain, digital, and transportation infrastructures previously mentioed. As a result, this reduces the effects of the largely geoeconomic Russian and Chinese strategies. Thus, it contributes to the resiliency of NATO and aids in containing Russian influence. Third, by increasing economic and political partnerships, it opens up the possibility to negotiate for strategic base placements in allied states. Sweden, Norway, Denmark, and Germany are all cases of how increased economic cooperation, consistent partnerships, and similar broad foreign policy views facilitate strategic basing negotiations. Thus, this again supports American Containment

Policy via hard-power strategies of military bases and troop placements, as well as the geoeconomic investment strategies to build economic resilience. Another beneficial aspect to multi-domain investments into the maritime sector and land-based digital infrastructures, is that it allows American intelligence agencies the ability to use FISA 702 and Kingpin Acts to target foreign national security threats, narcotics traffickers/cartels, and other smuggling operations.

In the end, both Strategic Basing and Containment Policy require a dualistic approach to foreign policy. Towards allies, it is essential to apply institutional liberalist geoeoconomic strategies that prioritize (1) critical-resources, (2) critical infrastructure and transportation, and (3) space services/launches/digital economy partnerships. By securing enough influence amongst allies, the U.S. government can more effectively lobby two geopolitical strategies. The first is Strategic Basing, which typically requires both good will and necessity. Second is Containment Strategy which also relies on Strategic Basing for sustained power project. The geoeconomic strategies also play an important role in mitigating Sino-Russian softpower influence. Both Russia and China rely heavily on realist approaches to geoeconomics that weaponize resource control, debts, and infrastructure investments.

Asia

History & Contemporary Geopolitics

The second region of importance is Southeast-East Asia and the Indo-Pacific. Similar to Europe, this region had been ravaged during World War II and the Cold War by continuous warfare, oppressive regimes, poverty, and corruption (Kitchens, 2012). Also, Asia an important gateway region for Chinese and American great power rivalry (Cohen, 2003). For these two regions, the primary great/regional powers at hand that seek to control the regional affairs are

India, China, United States, and Japan. Japan's economy has been struggling and its Abenomics has not produced the anticipated results yet, so one could argue South Korea should replace Japan as an economic influencer in the region (Minegishi, 20220). Australia can also be added to this list as well for the sake of simplifying regional categorization. Regardless, the secondary group of rising powers in the region are Indonesia, Thailand, Philippines, and Vietnam.

Currently, the macrolevel geopolitical state of affairs that dominates the region is the power balancing strategies between the United States and China (Kitchen, 2012). The United States has the advantage in alliances established and currently has China geographically contained. Thus, Chinese efforts have largely been to build up the capacity to break American containment via diplomacy, geoeconomics, and military assertiveness (Cordesman, 2021). For example, the U.S. has established defense pacts or alliances with Japan, South Korea, Philippines, Taiwan, Australia, Thailand, and New Zealand (WhiteHouse.gov, 2022). In addition, the U.S. has engaged in bilateral/multilateral military cooperation with Vietnam, Indonesia, India, Malaysia, Singapore, and others to help counter aggressive Chinese posturing (WhiteHouse.gov, 2022). For China, there are three main partners in the region: North Korea, Russia, Myanmar, and Cambodia (Kitchens, 2012). For China, Myanmar has had major internal stability issues with military juntas and the current ousting of President Aung San Suu Kyi. In addition, the state has rebel and insurrectionist movements in multiple regions across the country. So, even though China has gone all in for its support of this new government, it is unlikely Myanmar will have any impact on the regional balancing act between China and the US (Kitchen, 2012). As for Cambodia, it has a long history of catering to all the regional powers as a means of securing political stability. Even though they signed the "Action Plan 2019-2023 on Building China-Cambodia Community of Shared Future", Cambodia is too impoverished and

lacking to contribute significantly a Chinese war effort in the South China Sea and would only be useful for hosting Chinese military bases (Vannarith, 2023). As such, China has acted alone in its South China Sea posturing and in its attempts to intimidate its neighbors, with only North Korea engaging in similar actions. Although, there are two important wildcards in the Indo-Pacific and those are India and Pakistan. India has been on the rise economically and politically in the region but has found itself with several border clashes and territorial issues with China and Pakistan. India is willing to ally with the US against China, but not Russia as it has strong and historic ties with Russia. This has caused Pakistan to increase relations with China because Pakistan and India are heated rivals. However, it seems Pakistan does not trust having a strong partnership with China and does not want to develop it much further than necessary (CFR.org, 2022). Ultimately, the region is largely unified to oppose Chinese hard power influence, but after that the region becomes muddied with historic conflicts and rivalries (Kitchens, 2012). Consequently, it can be analyzed that from a hard-power security perspective, the United States has an advantage in alliance-building and geostrategic positioning for its China Containment policy. However, the same cannot be said for soft-power influence.

Geoeconomics

Historically, the United States and China have had completely different foreign policy perspectives. The United States has often relied on a chessboard style approach to foreign policy and relies heavily on military dominance to secure geostrategic positions, whereas China has taken its soft-power oriented Weiqi approach (Pan, 2016). For China, its multifaceted approach to soft-power focuses heavily on Guanxi and Weiqi (Pan, 2016). Guanxi takes a cultral approach to developing social networks and connections to establish influence, whereas Weiqi is the game strategy surrounding an enemy's pieces or territories (Pan, 2016). This coincides with China's

heavy use of foreign direct investments into infrastructure, trade relations, and resource access. As a result of Chinese strategy, “A 2022 survey of South-east Asian policymakers and experts showed that more than 75% of respondents believed China to be the most economically influential power in the region, while only around 10% considered the US to hold that status” (EIU.com, 2022). While many perceive China to dominate trade, it is only in trade flows regarding goods, whereas the U.S. actually leads in international service provision (EIU.com, 2022). Similarly, it is the U.S. with a significant lead in overseas direct investment amounting to 750 billion in 2020, whereas China accounted for 160 billion dollars (EIU.com, 2022). Thus, even though regional perception considers China to be the most influential economic actor, it is a much closer competition and the U.S. has the larger footprint (EIU, 2022). Ultimately, it can be summarized that China engages in wide-spread cultural, economic, political positioning strategies with a strong reliance on geoeconomic strategies (EIU, 2022). It also has a large economic influence pereception by regional leaders, than economic data may suggest. On the other hand, United States has consistently maintained high investment and trade capacity for services, but appears to lack the perception of economic power that China has garnered. Similarly, it can be summarized that China engages in a much broader and organized forms of geoeconomic strategy, than the United States. However, the United States still has a strong investment and military position that allows it contain China via military alliances and strategic basing. Regardless, both sides have been increasingly aggressive with their investment strategies in the region. For China, it relies heavily on the Belt and Road Iniative, as well as its navigational satellite services BeiDou. “BRI is an ambitious effort to strengthen infrastructure, trade, and investment links between China and other countries. Prominent projects in Southeast Asia include hydropower dams, oil and gas pipelines, and Beijing’s extensive railway plans to

connect the southwestern city of Kunming not just to Laos and Thailand, but eventually to Singapore through Malaysia. In terms of projects that are at the stage of planning, feasibility study, tender, or currently under construction, Indonesia currently leads the list at $93 billion, followed by Vietnam and Malaysia at $70 billion and $34 billion respectively.8 Xi Jinping also announced $64 billion in new deals at the Second Belt and Road Forum for International Cooperation" (Stromseth, 2019, pg1). Ultimately, it becomes clear that China's BRI projects are rooted in a geoeconomic strategy targeting critical-infrastucture, resource control, and international trade systems.

The United States has attempted to counter this disparity through the creation of the Indo-Pacific Economic Framework (WhiteHouse, 2022). For America, the Indo-Pacific accounts for 3 million American jobs and 900 billion in foreign direct investment making it critical for the American economy (WhiteHouse.gov, 2021). Similarly, the region is arguably one of the most geostrategically regions for the U.S. due to it being a primary hub for maritime shipping. For example, the region accounts for 65% of global GDP and half of all global trade passes through the region (Vashisht, 2023).

Targeted States for Hybrid Approach's Strategy

Regarding SpaceX's approach to investing in the region, it will continue to follow the same methodological approach by targeting investments into: (1) critical-resources, (2) multi-domain transportation and infrastructure investments, (3) commercial/military space services. Similarly, countries like South Korea and Japan will not be highlighted because they already have advanced economies, capable space industries, and strong economic relations with the U.S. and are less susceptible to Chinese strategies. The focus will be on investments that boost bilateral ties in vulnerable states, with the one exception of Australia (although the case could be

made Chinese lobbying is quite powerful there). It should be noted that India is more susceptible to Russian influence than Chinese influence, but still needs stronger political-economic linkage to the United States. The war in Ukraine and their unwillingness to sanction Russia and even indirectly support them proves this point (Gavin, 2023). Thus, investments into geoeconomically important sectors like ports, shipping, digital infrastructure, commercial space, and so on must be further developed. The primary states targeted are India, Indonesia, Australia, Vietnam, Thailand, and the Philippines.

India

First on the list is India, the highest potential economic investment for SpaceX and the US. India is capable of offering opportunities for all three investment sectors mentioned above. The first key investment sector to be targeted is commercial space opportunities. India's attempts at space privatization policies could be a potential access point for SpaceX and the US if they coordinate individual and corporate investments into private Indian space companies as a way of gaining soft power leverage over India. Additionally, the Russian invasion of Ukraine has made it difficult for India to launch satellites as Russia was a primary launch service partner. According to Indian news sources, India's OneWeb turned to SpaceX to launch 40 of its satellites this April due to Russia backing out of the launch arrangements (IndiaToday, 2023). This could be worthwhile if these companies operate like western ones and allow foreigners on the board that could encourage partnerships with SpaceX and its affiliated companies. Other than launch capabilities and satellite technology, India still has strong market value for SpaceX's Starlink, which already had over 5,000 preorders and plans to have as many as 200,000 terminals activated by the end of 2022 across India (Rainbow, 2022). However, Starlink is still awaiting

regulatory approval which is quite the hassle in India. Similarly, India and Tesla have come to a standstill in negotiations in selling the vehicles in India. The government has taken a strong "Make in India" approach for manufacturing goods and apparently the market for Teslas was not good enough to justify building up new factories and supply chains for the Indian market, where Teslas would be considered luxury vehicles that only a small portion of the population can afford (Shah, 2022). As such, the primary attraction of the Indian market will be the sales of Starlink or launch services, which are the best option for the Indian subcontinent due to its massive size and diverse terrain that would make building traditional non-satellite systems like 5G difficult and limited. Of course, there does seem to be a bit of politics involved with the regulatory processes for both Starlink and Tesla, so it remains to be seen how accessible the Indian markets will be for Elon Musk. However, after recent SpaceX launches of Indian OneWeb satellites the potential for cooperation and competition remains a reasonable possibility. This Indian market entry uncertainty is further reinforced by India's ranking of 131 in the world by Heritage Organization for economic freedom (Heritage.org, 2022).

The next SpaceX investment opportunity for SpaceX is in accessing Indian rare earth metals/mining sector. In 2019, India launched its National Mineral Policy to attract foreign investors. India is the largest producer of sponge iron, 2nd largest crude steel producer (113.44 million tons anually), 4th largest iron ore producer (Ravi, 2021) In addition, it has large reserves of Bauxite, Chromium, Manganese, Baryte, and has seen increased annual production rates (Ravi, 2021). Thus, India's mining sector offers a strong alternative to Chinese produced rare earths and is attempting to lure in investors with lucrative agreements. One other minor opportunity is Starlink Maritime sales and services. India has 217 ports and 1,500 vessels (ibef.org, 2022). Fitting Indian vessels with Starlink Maritime could amount to annual income of

4,500,000 dollars and one time fee of 3,750,00 dollars (Starlink.com, 2023). Also, as mentioned in the Europe section, by increasing Starlink services around the world it greatly benefits American intelligence agencies ability to acquire warrants for ongoing investigations into human trafficking, terrorism, arms trafficking, and drug smuggling cases via Kingpin Act and Section 705.

However, the US Trade Administration stated that even though the United States has become India's largest trade partner, "the Indian government has promoted the concept of self-reliance as a means to develop and support Indian businesses and employment, which is making it more difficult for U.S. companies to sell thier goods and services in India. This is particularly true for Indian government procurement when thereare Indian-made options available" (Trade.gov, 2023). In conclusion, the Indian market has strong economic potential for SpaceX, but government/regulatory barriers create a murky picture filled with market entry uncertainty.

Indonesia

The next state with arguably the greatest economic potential for development in Southeast and East Asia is Indonesia. There are a handful of reasons why the Indonesian economy could be of greater long-term benefit than the more industrialized states like Japan, Taiwan, or South Korea for SpaceX. Some of these opportunities are commercial/government space opportunities, energy and rare earth mineral access, parts manufacturing and production, and less important is its rich agriculture sector. Indonesia has the third largest population in the region after India and China. Another reason for targeting Indonesia is its lack of domestic competition (aside from Chinese services). Currently, China is Indonesia's current pratner for satellite usage as the state uses China's BeiDou network (Cordesman, 2019). However, Chinese

aggression in the South China Sea has caused Indonesia to increase its military cooperation with the United States, so there could be opportunities via the Indo-Pacific Economic Framework to push for SpaceX commercial market dominance or usage for government systems.

According to Heritage Organization, Indonesia can be considered a "moderately free" country who has seen steady economic growth and increased freedoms in the last decade with a global rank of 63 (Heritage.org, 2022). Similarly, efforts by Indonesia to increase monetary freedom, decrease tax burdens, and increase labor freedom have seen positive results over the years (Heritage.org, 2022). Indonesia is also a major regional exporter of raw materials, electrical equipment, mineral fuels, mechanical appliances, rubber, and other machinery. Such export production capabilities would be useful for SpaceX, Starlink, and Tesla. In addition, Indonesia has massive untapped ocean mineral resources that could be of great use. In recent decades, it has discovered over 60 hydrocarbon basins with only 14 of them active, 38 explored, and 22 unexplored (OECD.org, 2002). If that is not enough, Indonesia is reforming and trying to expand its mining capabilities. It ranks among the top five of global producers in gold, tin, copper, nickel, and other precious metals/minerals that are essential for space exploration vehicles, satellites, and electric vehicles (Sony, 2019). The country is also moving away from exporting raw ores and minerals, instead focusing on refining and downstream activities (Huang , 2022). This could allow for SpaceX and Tesla to establish rare-earth metal refining facilities in a geographically convenient location situated along major Pacific trade routes. Ultimately, Indonesia is a lucrative investment opportunity for its natural resources, large population and digital infrastructure opportunities, and is geographically situated in a favorable location.

Australia

Another important regional opportunity is Australia. Australia offers multiple investment opportunities that SpaceX should target. These include its historically rich mining sector, major market for Tesla and commercial space services, digital infrastructure opportunities, and so on. Australia is ranked 4th in the region in terms of overall economic freedom, saw consistent economic growth before Covid-19, increased property rights, and judicial effectiveness (Heritage.org, 2022). Additionally, Australia has free trade agreements with most of the countries in the region, UK, and US. Similarly, Australia is a relatively developed economy and has the second highest GDP per capita (behind Singapore) at 59,934$ (OECD, 2023). So, with potential subsidies and government assistance, it is quite likely that many Australians can afford to buy Starlink. Similarly, the expansive and rugged geography makes SpaceX a suitable service provider, especially for companies and people not living in the major cities.

One key issues with the space services sector is local competition. the market seems exposed to foreign telecom providers like Starlink and OneWeb who are completing their regulatory approval and beta trials in Australia. Australia's National Broadband network claims that "it would lose 3.1% of its customer base in the 2022 fiscal year-equivalent to 263,000 customers, and 3.3%, or 283,000 customers in the 2023 financial year…In addition, it claimed its biggest competition was typically concentrated in high-value, low-cost-serve areas" (Rolfe, 2022). Starlink and Elon Musk were directly mentioned in this complaint by NBN which operates in conjunction with the government and its pricing is controlled by the government (Rolfe, 2022). Similarly, this could work against Starlink as local powers lobby for increased protectionist policies that favor Australian providers and force higher taxes on SpaceX or force them to work with locals at their regulated rates.

The next major opportunity for SpaceX is critical-resource access. “Australia is one of the most important countries for the mining industry. Hosting substantial mineral resources for most commodities, it ranks among the top for iron ore, zinc, nickel and cobalt. Notably, Australia remains the top producer of lithium with estimated production of 355.1 Mt of LCE in 2022. Exploration allocations to Australia increased to $2.3 billion in 2022 from $1.9 billion in 2021. This saw drilling activity increase to 57,341 reported drill holes in 2022 at 661 distinct projects” (spglobal,2023). Thus, Australia is a critical-resource rich country with an extensive history for mining the metals needed for SpaceX and Tesla. In addition, the Australian/courts have started targeting Chinese companies and preventing them from obtaining new mining contracts and directly cited national security interests as key reason (Needham, 2023). Thus, SpaceX is in an advantageous position to work with its contractors to obtain the rights to these operations.

As it stands, Australia’s political importance for the US seems greater than its economic potential for SpaceX. However, Australia still offers notable opportunity for relevant critical-resources like rare earth metals that are necessary for SpaceX’s growth. As such it is suggested that SpaceX will take an aggressive approach to the Australian minin oppportunities.

Philippines, Vietnam, Thailand

All three states offer some beneficial opportunities in digital infrastructure projects, satellite/launch services, and critical resources for either SpaceX. However, each of them faces problematic domestic issues that undermine their potential. That being said, Thailand is the wealthiest of the three states with the highest GDP per capita of 7,223$ (OECD, 2023). It is third in population amongst these three states at 69,800,000 people. Thailand has been a US partner since the Vietnam War and has recently begun renewing its economic and political cooperation amidst threats from Chinese expansion, while operating under the Indo-Pacific

Framework. Additionally, it has seen steady economic growth, increased internet usage by population (85%), increased renewable energy production, and steady access to electricity (Worldbank.org, 2023). So, on paper there are notable postive trends for Thailand's economy. It is predominantly an agricultural heavy economy but has seen increased investments into its manufacturing sector for Petro-chemicals, electronics, cars, car parts, iron, steel, and computers (Worldbank.org, 2022). According to the World Bank, there is also a strong mining industry that can be used to manufacturing, but most of it is not rare-earth metals (Worldbank.org, 2023). So, there is moderate potential for SpaceX development in the country, but most of the sales would at first be for the government and its top companies, but not for the average citizen due to much lower GDP per capita of 7,000$ (Worldbank.org, 2023). In addition to being Thailand's primary satellite launch provider, SpaceX should take a more proactive role in assisting in the digital transformation of Thailand. This is especially true since Thailand's digital economy increased by 17% in 2022 to 35 billion dollars and is projected to grow to 53 billion dollars in 2025 (ThaiEmbassyDC, 2023).

Vietnam is another minor-medium investment opportunity for SpaceX who could benefit greatly from closer partnerships and integration with the U.S., its security, and economic frameworks. Of the three key private-sector economic interests (1) critical-resources, (2) multi-domain supply-chain transportation and infrastructure investments, (3) digital infrastructure and commercial/government satellite services, Vietnam offers economic opportunities for (1) and (3). Recently, the US has become one of Vietnam's biggest trading partners. As of now, Vietnam has been seeing steady economic growth and even posted growth during the pandemic 6.8%-7.08% (Cameron, 2019). Similarly, its IT and digital economy are expected to grow an average of 10% each year and is projected to earn 200 billion dollars in value between 2021-2045 with

only an estimated 35 billion dollars needed in investment (Morisset, 2022). It could also potentially lead to millions of new jobs and would help solidify the economic and political influence of the US within Vietnam, so it is not significantly exposed to Chinese soft-power strategies. As for satellites, there could be more opportunities for SpaceX launched satellites as the last one was launched in 2012 by Arianespace. Probably the best aspect of Vietnamese investments, is the access to the large amounts of crude steel the country produces. It has steadily increased its production rates and in 2020 produced 20 million metric tons (WorldSteelAssociation, 2022, pg 6). Ultimately, there are some minor-mediocre critical-resource opportunities, as well as solid digital infrastructure/launch service projects due to economic and population growth.

Indo-Pacific Conclusion

For the Southeast Asian region, great power rivalry remains the biggest issue for the region. Both U.S. and China are trying to secure control or influence over other states' critical infrastructure, like ports, airports, and commercial space services. The majority of Southeast Asia has signed a security agreement with the U.S. or is an ally. Similarly, the United States has a geostrategic advantage in Strategic Basing with facilities in South Korea, Japan, Philippines, Taiwan, and Australia.

However, China relies heavily on foreign direct investment, multilateral infrastructure mega projects, debt traps, and resource control as its primary means of geoeconomic manipulation. Thus, it is imperative for American and SpaceX to target investments into Indo-Pacific or Southeast Asian states for critical infrastructure. By doing so, China will not develop a

significant softpower advantage. However, the majority of the opportunities in Southeast Asia were largely based around (1) critical-resources and (2) commercial space services. With significant coordinated investments, SpaceX and U.S. can maintain a lead or or stalemate in the Cold War. Then, with a geostrategic military advantage that will grow over time, assuming American/SpaceX investments are successful. Then, over time more Indo-Pacific states will become more agreeable to hosting American military facilities and taking a shared common security approach to China, instead of states only signing agreements where the U.S. gurantees their security. However, not all states were willing to reciprocate the agreement. Thus, unlike Europe, the opportunities in Southeast Asia have a higher political value than the European opportunities who had significant economic potential. Aside from AUKUS members, Japan, and South Korea, it is unkown how commited the other states are to countering Chinese aggression. Additionally, unlike in Europe, many Indo-Pacific states have no issue taking Chinese money so it adds an extra level doubt regarding buillding up enough bilateral rapport for the U.S. government to be able to barter/negotiate for more base locations.

Conclusion

Tying Together Political Realism & Liberalism via Geopolitical & Geoeconomic Approaches.

Ultimately, the American led world order is being directly and indirectly challenged. Due to the high costs of destruction amongst highly develop militaries and nuclear powers, states are forced to rely on non-military methods of competition like Geoeconomics (Blackwill & Harris, 2016). Additionally, “an era of intense geoeconomic activity might thus become an era of

unprecedented risk for important private companies in important sectors“ (Luttwak,1990, pg 22). This directly impacts American MNEs who developed through institutional liberalist geoeconomic approaches and were incentivized to invest in China, but now face this challenging scenario where the U.S. and China engage in hedging and decoupling. Similarly, both alliances are attempting to secure their supply-chians, which is fragmenting the global economy and making it harder for MNEs to expand. Now, MNEs are unsure of each state's intentions and often hope for the best, as their supply-chain issues are secondary to the state's interests. There are still multinational enterprises like Tesla and Apple with gigafactories in China because the costs to relocate are high, its highly profitable, and they hope to wait out the tensions.

To overcome these issues, the thesis attempted to solve three key research questions: (1) In regards to the current Cold War, how can a hybridized geoeconomic-geopolitical approach by SpaceX/U.S. resolve currently conflicting realist and liberalist foreign policy strategies? (2) What are the prevailing geoeconomic and geopolitical strategies at play in each of the important "gateway regions" (Europe & Indo-Pacific) that impact SpaceX/American grand-strategies? (3) How does the inclusion of the strategically important SpaceX grand-strategy interconnect with American geoeconomic interests in gateway regions, which in turn empowers American geopolitical interests within those regions?

There were multiple strategies for both regions that could be utilized to answer these questions. It was analyzed that the hybrid approach provided several benefits for American and SpaceX grand-strategies. First, the base approaches and understandings for private-sector companies differs from that of the state, when it comes to grand-strategies and international affairs. Most American companies, while profit seeking, developed in an uni-polar Institutional Liberalist world order. The American government, particularly the military and intelligence

agencies (as well as many think-tanks) operate largely on Political Realist frameworks. So, it was necessary to create a base-level understanding of relevant cold war foreign policy issues like geoeconomics and geopolitics, for each region. With that established, strategic investments targeting, (1) critical-resources, (2) multi-domain infrastructure and logistics systems, and (3) commercial/government digital infrastructure projects and space services were highlighted. These three investment types were targeted because of their critical roles in economics and modern geoeconomic strategies.

One primary strategy to accomplish this investment goals is "friendshoring" opportunities in either vulnerable or profitable allied states in Europe and Indo-Pacific. Friendshoring is the process of relocating American foreign investments out of China or any other unreliable country and into the countries with the best political relations and economic importance. Other strategies included were to simply find individual opportunities that could be exploited. Another important strategy was the formation of free-trade regional blocs that use multilateral investment banks/organizations to facilitate investment schemes amongst member states' strategically important companies or agencies. For example, "multilateral Bank A" could be established between America, Norway, Sweden, and Denmark/Greenland for purpose of facilitating partnerships between Nordic mining companies and emerging American rare earth refineries. Also, such an investment group would be essential for later exploration, research, and exploitation of resources in the Arctic. The same strategy could be applied int the Indo-Pacific, which faces a much bigger geoeconomic and geostrategic threat. Most of these states, aside from Australia or India, are extremely vulnerable to Chinese geoeconomic strategies. As such, it would behoove AUKUS to play a stronger role in consolidating control over critical resources and infrastructure, by ensuring they are not owned by Chinese companies. Similar to European

policy, AUKUS should look to organize multilateral investment frameworks that prioritize allied investments to critical sectors and relegates Chinese investments to secondary/peripheral places. An element of this strategy was displayed Australia who refused to renew a major Chinese firm's mining license in their country, while new contracts were announced for American, Canadian, or British companies. Other key strategies involved the consolidation of allied digital, space transportation, andnon-space logistics infrastructure around SpaceX or allied groups. This has both economic and security benefits. For example, it was highlighted that under FISA section 702 or Kingpin Act that American companies could be issued information certificates that required the company to release information on non-American national security targets. It would also allow for the American government to better monitor international shipping and telecommunications to crack down on human trafficking , drug smuggling, illegal firearms trade, terrorist threats, and so on. Ultimately, these strategies could be pivotal in boosting the economic and political resiliency of EU and Indo-Pacific states, while also empowering SpaceX/U.S. The focus on non-space infrastructure was also important for consolidating American influence and connectivity over the two increasingly important international commercial/logistics domains (maritime and space).

There were multiple strategic gateways, but two of them are absolutely critical to U.S. foreign policy forboth geoeconomic and geopolitical reasons. One of the primary strategic gateways highlighted is Europe, where there are two key geoeconomic issues and one geopolitical issue. One geoeconomic issue was Russian use of critical-resources like oil/gas to manipulate EU states. Similarly, the second geoeconomic problem was Chinese critical-resource and trade manipulation. The geopolitical issue was Russian invasion of Ukraine. Both Russian and Chinese resource manipulation tactics have drawn the ire of the European community, which

has resulted in large-scale policy changes by the European Union. Both the EU Critical Raw Materials Act and RePowerEU attempt to gradually reduce dependence on Sino-Russian resources. However, energy policy and environmental regulations continue to be dividing lines between amongst members. In addition, financing has drawn criticism as expanded EU legislation attempted to build upon CRM to spend more money to keep competitive with the America. However, 7 states (one of which is Denmark) wrote letters rejecting further spending and 10 more did not sign letters of opposition, but agree existing funds had to be spent first. Thus, it would behoove the U.S. to push forward with its current economic and investment lead via to continue attracting EU companies into Europe. Another key strategy would be to create a Nordic/Free-trade bloc first using non-EU members like Denmark, Norway and Greenland. This Nordic Bloc would look for multi-lateral ways of exploiting newfound critical minerals and drawing upon the refinery capabilities of the U.S., while also using the Nordic Bloc's dominant resource control to indirectly further access EU markets.

For Europe, most of the states targeted had critical-resource opportunities that were of great value to SpaceX, as well as opporunities in maritime shipping and space services. While Starlink Maritime would offer some good financial incentives, its capabilities for container cargo ships is still untested. The most notable opportunities were new mining developments in Sweden, Norway, and Denmark. Another benefit to these partnerships is that it builds relations amongst Arctic Council members and would be able to build up relations before it is possible to begin exploiting Arctic resources.

Ultimately, SpaceX has a unique opportunity to partner with European allies on critical-resources and commercial space services. By doing so, it builds up the economic wealth and resilience in the region, while reducing Chinese resource control over NATO allies. For the U.S.,

the biggest issue regarding economic and political resiliency is in the Indo-Pacific. As a result, more aggressive and coordinated investment strategies are required to noticeably build up allied rpolitical and economic resilience. Then, farther down the road non-allied states might allow military installations. Regardless, the hybrid Approach's highlights how corporate grand-strategy targeting investments into critical-resources and infrastructure feed into geoeconomic goals. Then, those geoeconomic strategies of building relations via investments set up the U.S. government to negotiate for American Strategic Basing to bolster American Containment Policy. Thus, SpaceX and other MNE's can play a fundamental role in facilitating these two security developments that meet American geopolitical interests in Europe and Asia. This combination of utilizing institutional liberalist geoeconomic strategy and political realist geopolitics strategy creates a useful approach to using strategic MNEs for organically developing economic and political relations. Also, it does not force MNEs to completely change their ethos for the sake of the state. Rather it allows for an expanded usage or scope of pre-existing fields like Political Risk Analysis, to empower the MNE to create mutually beneficial strategies. Otherwise, history may repeat itself as more cases of government interference and oversight towards strategically important MNEs increasesdue to Cold War issues. Thus, constantly forcing MNEs to develop strategies reflexively, rather than proactively. This might also play an important role in preserving American values, as it could lessen the amount of times the U.S. government would need to utilize national security concerns to coerce an MNE to comply with their goals or security interests that were not previously made clear. Apple and Tesla are prime examples of this major conflict of interest in the current Cold War, where the potential profits of staying in China are so tantalizing, that they are willing to ignore government calls/incentives to decouple from China.

Highlighting The Importance of this Hybrid Approach

There are several justifications for developing this hybrid approach. First, it creates a corporate grand-strategy that focuses on meeting American foreign policy interests and being profitable. Two, it allows for a centrist/hybrid style foreign policy approach that utilizes both institutional liberalist geoeconomics with political realist geopolitical interests. This hybrid approach seeks to facilitate these geopolitical interests via organic investment partnerships over important aspects of SpaceX business inteerests, which also empower American geoeconomic interests. By utilizing this approach, in can be used to stabilize gateway regions, so that it reduces the likelihood of them becoming shatterbelts as Cohen suggested could happen. Similarly, there has been some research that directly correlates the importance of trade and political relations for the establishment of military bases (Strategic Basing), which is essential for America's Containment Policy. So, it for the U.S. to build up the economic interconnectivity between MNEs and allied states for geoeconomic purposes. In turn, this increases cooperation over geopolitical issues and incentivizes allies to allow for Strategic Basing or committing other resources to American Containment Policy.

Graphs

Graph 1:

Graph 2:

Macro

- Political Realism & Institutional Liberalism Dualism Theory

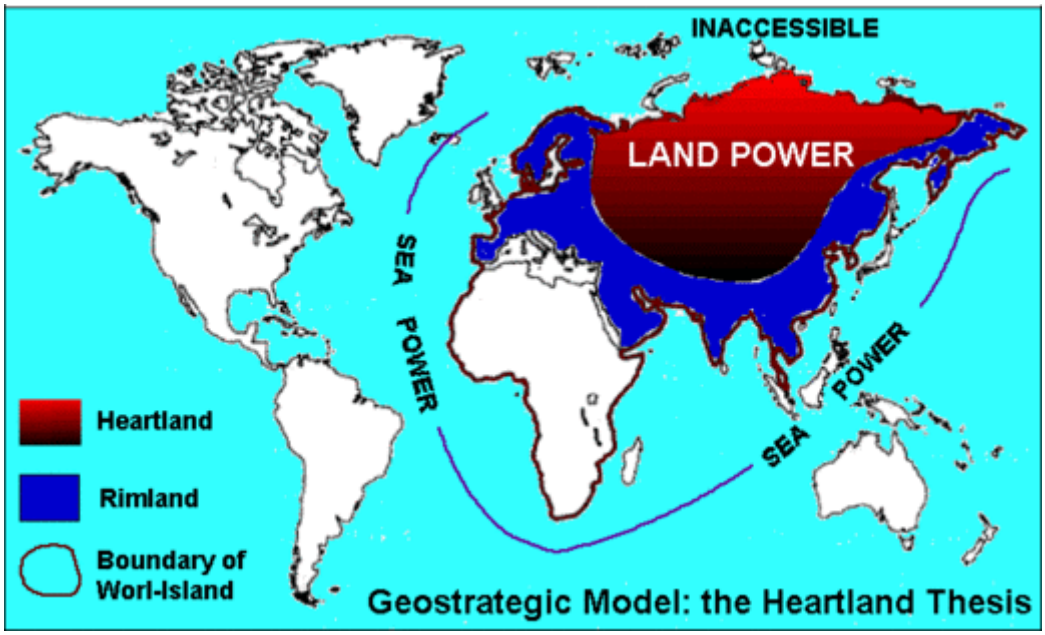
Meso

- Geopolitical Strategies: Containment, Military Capacity, Alliance Building, Strategic Basing, Weaponized Geoeconomic Strategies, & Etcetera.
- Geoeconomic Strategies: Sustainable Multi-Domain Infrastructure Projects (land, sea, & space), Bilateral/Multilateral Trade Frameworks, Resource Control/Access, Sanctions, Supply-Chain resiliency, Technological Cooperation, & Etcetera.

Micro

- Private-sector MNE grand-strategy: Diversified Investment Strategies into multi-sector and multi-domain opportunities, Critical-Resource Access, Critical Infrastructure Projects, & Supply-Chain Resiliency.

Graph 3:



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