

Military Conscription in the 21st Century: Obsolescence or Relevance?

Glenn Lee¹ and Ja Kyung Han[#]

¹ Seoul Foreign School, Republic of Korea

[#]Advisor

ABSTRACT

Post Russian invasion of Ukraine, questions about conscription have come into focus, prompting questions about military readiness and the value of such a policy. In analyzing the policy, international relations theories can act as a useful framework, and help elucidate conflict dynamics. In particular, Realism and Liberalism have contrasting depictions of the world, with the former characterizing it as an anarchic system in which states compete for power and security and the latter as a system in which states allay tensions through cooperation. This research draws upon these theories as it uses hypothesis testing—t-tests, ANOVA, and chi-squared statistics—to investigate the different attributes of countries as they relate to conscription policies. A wide range of variables were chosen including military expenditure, imports and exports, the Human Development Index, and the EIU Democracy Index in order to test statistically significant differences through the aforementioned tools. Overall, this research finds that both realist and liberal theories have explanatory power and provide insight into how desire for hard and soft power may impact decisions to enact and maintain conscription policies. Data and graphs were interpreted alongside such concepts in order to reach this conclusion.

Introduction

February 24th, 2022. Russian President Vladimir Putin orders a special military operation, beginning a bloody conflict in his bid to cripple Ukraine. As of August 2022, over 13 million Ukrainians have been displaced, tens of thousands of lives have been lost in the war with a loss of 9,000 military personnel, and 20% of Ukrainian land is now occupied by Russia (Hayda, 2022). Such acts of aggression and hostility between the two countries, however, are nothing new: it was only eight years ago that Russia invaded and annexed the Crimean Peninsula in the spring of 2014, prompting criticism of violations against Ukrainian sovereignty and international condemnation (Pifer, 2020).

In response to Ukraine's deteriorating security, then acting President Olexander Turchynov reinstated military conscription, overturning the 2013 law that had scrapped compulsory military service required of young men for a voluntary force (BBC, 2014). Military conscription was not a new idea in Ukraine, but neither had it been necessarily enforced. Evading responsibility through deferring service, gaining exemption through university enrollment or parental responsibility (having at least three children), and even listing incorrect addresses were several means by which many avoided service (Arraf and Chubko, 2022; Economist, 2022; Westerman, 2022). The plan to move to an all-volunteer force ensued in response to such inefficiencies as well as calls for modernization and consistent training for soldiers (UPI, 2013). Just one year later, however, conscription was reinstated amidst rising tensions and conflict with Russia (BBC, 2014). The annexation of Crimea also prompted several other European countries to reconsider their conscription policies just as today's crisis is prompting further reflection on national service (Hutt, 2022).

Though Ukraine has recommitted to employing mandatory military service since the 2014 Crimean War and into today's conflict as it increases the strictness of its conscription policy (Carpenter, 2022), other

countries—particularly in Europe—have been reevaluating their national security in the context of international relations. In addition to perceptions of rising international threat, what factors have led nation-states to enact and maintain conscription policies? What attributes are shared among countries that have mandatory conscription policies? Are there any differences between countries that have or have not enacted them? To address these questions, I investigate potential state perceptions of security related to aspects of power, demand for resources, wealth, and alliances/relations. International Relations theories provide useful frameworks to understand how governments like Ukraine may view their security and how such perceptions lead them to enact and enforce mandatory conscription.

Literature Review

International relations is rooted in key political theories that can be utilized to analyze events, ideas, or in this case, conscription and attributes of countries with such policies. While conscription is in itself a domestic policy, its employment is inherently tied to perceptions of conflict and peace, and therefore requires an international lens in its discussion and characterization. The two major contrasting perspectives of international relations, realism and liberalism, have their own nuances and theories that are worth exploring in the context of mandatory military service.

Realism

First, realism provides a framework to analyze security decisions made by states with or without conscription policies. Realist theories can be generally categorized as the emphasis on “states' competition for power and security” in an anarchic system (Levy 2011, pg. 28). It is assumed that states act rationally in the anarchic system to advance their own security and are more pessimistic on world order. This idea is echoed by Hans Morgenthau in his book *Politics Among Nations*, who argues that power provides the link between facts and international relations, making it logically understandable (Morgenthau 1948, pg. 2).

Realism can be further divided into three subcategories: classical realism, Waltzian neorealism, and neoclassical realism. Levy (2011) defines classical realism as a branch that focuses on human nature as a source of aggressive behavior and greed, leading to war in the pursuit of power. According to this theory, classical realists also attempt to understand foreign policy decisions through human goals and how they wish to pursue power through conflicts. Waltzian Neorealism disregards the emphasis on human nature, arguing that “security is the highest end,” while power is not necessary to gain such security (Waltz, 1979, p.126). The theory also focuses on the balance of power, arguing that hegemonies rarely form and that bipolar power structures are more stable due to the constant monitoring of others. A limitation comes from its lack of explanation for specific conflicts or foreign policy decisions due to its broad interpretation of world security (Levy, 2011, pg. 34). Finally, with neoclassical realism, the same focus on anarchy is emphasized, with material capabilities the primary concern of the theory. Particular emphasis is placed on material capabilities being effectively utilized by state leaders and latent power, such as the economy, being managed correctly. Military power, such as the number of soldiers, is also important since the theory underscores the capabilities of a state and the perceptions of such capabilities by others.

Furthermore, Levy (2011) contrasts the Spiral Model with the Deterrence Model, which explains how conflict occurs through states actions, concepts relevant to the security-seeking actions of conscription countries. The spiral model describes states as being driven by fear whose defensive actions taken to protect their own security may be interpreted as aggressive posturing by others (Jervis, 1976). This creates a cycle in which states continue to act aggressively—even if they want peace—in order to protect themselves. The deterrence model, on the other hand, portray states as being aggressive and looking for war. Wars occur when “one side either lacks the military capabilities to threaten a sufficiently costly response to aggression, or when its threat

lacks credibility” (Jervis, 1976, pg. 79). Appeasement or coercion only invites invasion and predatory behavior for states who want to capitalize on weaker ones, underscoring the importance of having strong security.

Liberalism

In contrast to realist paradigms that engage in debates of conflict and power, liberalism focuses on interdependence and global cooperation in order to reduce conflicts and military engagements. Pioneered by Kant’s idea of perpetual peace, a wide range of conceptions have developed from the central idea of international cooperation, including Democratic Peace, Capitalist Peace, and the Golden Arches Theory (Gartzke, 2007).

Many theories have been posed to explain why democratic states have fewer conflicts than non-democratic states. One theory, the institutional constraints model, posits that the relative power of media and institutions in democratic states put pressure on the government to listen to citizens, who are mainly opposed to conflict (Levy, 2011). Another emphasizes the role that politics play: that a large voting electorate is needed to win elections in democratic nations, compelling politicians and therefore nation-states to be more risk-averse due to their not wanting to lose power from an unsuccessful war (Gartzke, 2007). Gartzke also highlights the negative statistical relationship between democratic dyads and disputes, citing numerous studies like Oneal and Russett (1997), Senese (1997), Van Belle (1997), and Ward and Gleditsch (1998).

Another theory that focuses on interconnectedness is the Capitalist Peace Theory, according to which trade is theorized to reduce hostile behaviors. Because trade generates positive outcomes for both parties and allows for a more efficient economy due to comparative advantages, states are incentivized to trade rather than expend resources fighting or disrupting positive economic activity (Levy, 2011). Furthermore, integration into financial markets curtails states from waging war because of the larger economic damages associated with conflict: with the comforts associated with trade, there is more to lose, and other states may punish or restrict access to those who fight (Gartzke, 2007). The Golden Arches Theory by Thomas Friedman theorizes that states with enough development to support a McDonald’s network will not go to war as citizens will not want to fight, preferring a burger to war (Friedman, 1999). Globalization gives states incentives to avoid conflicts, forcing leaders to think twice about engaging in war and to pursue more peaceful options.

Additional Research

Though many studies have investigated the use of military conscription with regards to historical legacies (Asal, Conrad, and Toronto, 2017), inefficiencies (Poutvaara and Wagener, 2007), and impacts (Hjalmarsson and Lindquist, 2019; Conley and Heerwig, 2012; Hubers and Webbink, 2015), there is a lack of studies that investigate the connection between conscription and attributes of countries related to security as contextualized by these international relations theories. This creates potential to investigate the theories outlined above—from neoclassical realism to the Democratic Peace Theory—as they relate to an issue that is relevant today in many countries around the world as well as in my home country of South Korea. Therefore, this research seeks to investigate attributes of countries, as explained by international relations theories, that are associated with countries that have or have not enacted conscription policies. What attributes are shared among these countries and how can the different IR theories explain them?

Data

The data utilized for the research paper was obtained from various sources. These include the data from the World Bank Open Data for varied information associated with its World Development Indicators such as military expenditure and exports, United Nations Development Programme (UNDP) for the Human Development

Index (HDI), the Economist for its Economic Intelligence Unit's (EIU) Democracy Index, and the World Population Review for conscription status of countries. The HDI is a measurement of average achievement in three main dimensions of human development: long and healthy life, knowledge, and a decent standard of living (UNDP, 2022). The Economist's Democracy Index is a measurement of the state of democracy in 167 countries and territories and is based on 60 indicators grouped in five main dimensions: electoral process and pluralism, civic liberties, the functioning of government, political participation, and political culture (EIU, 2021). The World Population Review categorizes conscription status of countries into 5 groups: having mandatory military service (yes), not having mandatory military service (no), having compulsory military service by law but not used in practice (de jure), having mandatory military service that is infrequently used (infrequent), and unclear (World Population Review, 2022).

For each variable associated with the World Bank, data was merged by taking the mean of the values provided from 2016 to 2020. This was done because of irregularities in reporting by countries across years. For HDI and EIU's Democracy Index, up to date statistics from 2021 were used and missing values were ignored from the calculations. For conscription status, 2022 classifications provided by the World Population Review were used and then confirmed through multiple sources such as respective Department of Defense sites, press releases, and news organizations.

Variables were chosen because of their potential connections to conscription status as explained by the different international relations theories. These relationships were tested in order to understand how security related to aspects of power, demand for resources, wealth, and trade may correlate with conscription status. Since the realist theory focuses on the competition for resources, security, and power among states, data relating to CO2 emissions, HDI, and military expenditure was selected. Higher CO2 emissions and higher rates could point to more resources that a state has and the energy needs of their population, as well their developmental status. Utilizing the HDI, which includes components like the GNI, schooling years, and life expectancy further points to the level of development, and the level of resources that a state has. It connects to realist theory in that a stronger military and higher levels of power would allow them to obtain more capital and improve their HDI. Finally, a higher military expenditure links to the easier acquisition of resources for states as well as their increase of power & security.

In terms of variables seeking to explore liberal theories and perspectives, data on imports and exports of goods and services, the EIU Democracy Index, and the existence of McDonalds branches were tested. Import and export values are quantifiable measurements that were used to explore the Capitalist Peace Theory and the relationship of trade to conscription status as a means of potentially reducing conflict and the need for military power. Similarly, the EIU Democracy Index was used to examine the Democratic Peace Theory and whether more democratic countries would be willing to enlist troops through conscription. The existence of McDonald's locations was used as means to evaluate capitalist peace with the Golden Arches theory and the role of economic development through globalization in reducing a nation's taste for war and hence conscription.

Finally, mortality figures were used to determine relationships between conscription and death. The variable could partially explain if the lack of conscription could lead to less protection for a state or if more deaths led to conscription being utilized to better defend the security.

Methods

Inferential statistics was utilized to test whether there were statistically significant differences between the means of the chosen variables by conscription status, lending support to (though not confirmation of) the existence of correlations and causality between those variables and conscription status as explained by IR theories. The analysis focuses on comparing the means of the datasets through the use of two tailed t-tests for two sample populations, as well as one-way ANOVAs for more than two sample populations.

First, in order to determine the correct t-test to utilize, a two-sample variance-comparison test was used to confirm whether the samples had equal variances. Depending on the equality of variance, a different t-test was run (t-test for equal variance and t-test for unequal variance). In all statistical tests run, the critical value referenced was 0.05, so that p values of less than or equal to 0.05 were considered to show a higher likelihood that there was a statistically significant difference between the means. Values below the alpha implied that the null hypothesis (that there was no difference in the means) could be rejected, showing that there was a statistically significant difference in the means. On the contrary, a p-value above 0.05 meant that the null hypothesis could not be rejected and that there was no statistically significant difference between conscripted and non-conscripted countries in our dataset.

The one factor ANOVA is similar to the two-tailed t-test but tests differences in means for more than two sample populations such as states having conscription, no conscription, or de jure policies. Just as for the t-tests, the null hypothesis was that the means of the populations were the same and could be rejected if the p-values were below 0.05. If the null hypothesis could be rejected, at least one sample could have exhibited a statistically significant difference in means. To determine which population (no conscription, conscription, or de jure) had a significantly different mean, a post Tukey Honestly Significant Difference (HSD) test was run. If the mean-difference value between specified groups was found to be greater than the HSD, then we could infer that there was indeed an honestly significant difference between the specified pair's means.

The Chi-Square test was also used to determine if there were statistically significant differences between the three categories of nation states and whether they exhibited independence (i.e., absence of association). This test was utilized to test the null hypothesis that the existence of McDonald's within a country was independent of the country type as it relates to conscription policy. If p-values were below the critical value 0.05, then we could reject the null hypothesis that the populations were independent at the 5% level, implying that a relationship exists between the presence of McDonald's and country type. If p-values were above the critical value, the populations were considered to be independent.

Results

Table 1. Two Tailed T-test between Countries with vs without Conscription (De jure not included)

Variable	Non-Conscription Mean (Standard Deviation)	Conscription Mean (Standard Deviation)
CO2 Emissions (kg per 2017 PPP \$ of GDP) p = 0.0902	0.1986226 (0.1196589)	0.2366282 (0.1486779)
CO2 Emissions (kg per PPP \$ of GDP) p = 0.0907	0.1990738 (0.1193261)	0.2369125 (0.1482302)
Exports of Goods and Services (% of GDP)	42.96744 (32.08084)	40.62878 (26.55352)
Imports of Goods and Services (Constant 2015 US\$)	1.23e+11 (2.573e+11)	9.46e+10 (1.392e+11)
GDP Per Capita (Constant 2015 US\$)	14051.17 (20238.67)	14452.34 (20419.74)

GDP per capita, PPP (Constant 2017 International \$)	20666.58 (20956.58)	22366.9 (22524.08)
Human Capital Index (HCI) (Scale 0-1)	0.5487098 (0.1465622)	0.5887035 (0.1470062)
Mortality Rate, Under-5 (Per 1,000 live births)	30.60205 (29.92355)	26.32646 (28.63474)
Mortality Rate, Adult Female (Per 1,000 female adults) p = 0.0602	137.053 (90.55522)	110.5904 (75.20124)
Military Expenditure (% of GDP)	1.803313 (1.584703)	2.176491 (1.36108)
Military Expenditure** (% of government expenditure) p = 0.0383	5.850695** (4.447355)	7.783124** (5.628609)
Military Expenditure (current USD)	6.68e+09 (1.54e+10)	5.29e+09 (1.08e+10)
Human Development Index	0.7134419 (0.1544932)	0.7277031 (0.1520804)
EIU Democracy Index** (Scale 0-10) p = 0.0236	5.558608** (2.096973)	4.706508** (2.332046)

Note: * = p < 0.10; ** = p < 0.05

Table 2. One-Factor ANOVA and Tukey HSD between Countries with Conscription, Countries without Conscription, and De jure Countries

	Non-Conscription Mean – Group 1 (Standard Deviation)	Conscription Mean – Group 2 (Standard Deviation)	De Jure Mean – Group 3 (Standard Deviation)
CO2 Emissions (kg per 2017 PPP \$ of GDP)	0.1986226 (0.1196589)	0.2366282 (0.1486779)	0.1791983 (0.11609906)
CO2 Emissions (kg per PPP \$ of GDP)	0.1990738 (0.1193261)	0.2369125 (0.1482302)	0.1786891 (0.11502609)
Exports of Goods and Services (% of GDP)	42.96744 (32.08084)	40.62878 (26.55352)	40.77429 (44.25311)

Imports of Goods and Services (Constant 2015 US\$)** p = 0.0463	1.23e+11†† (2.573e+11) vs group 3	9.46e+10†† (1.392e+11) vs group 3	3.51e+11†† (8.76e+11) vs group 1 & group 2
GDP Per Capita (Constant 2015 US\$)	14051.17† (20238.67)	14452.34† (20419.74)	15586.57† (17497.77)
GDP per capita, PPP (Constant 2017 International \$)	20666.58 (20956.58)	22366.9 (22524.08)	22350.51 (20093.73) vs group 1 & group 2
Human Capital Index (HCI) (Scale 0-1)	0.5487098 (0.1465622)	0.5887035 (0.1470062)	0.6181498 (0.1239081)
Mortality Rate, Under-5 (Per 1,000 live births)	30.60205 (29.92355)	26.32646 (28.63474)	23.24857 (32.68466)
Mortality Rate, Adult Female (Per 1,000 female adults)	137.053 (90.55522)	110.5904 (75.20124)	110.6571 (65.62150)
Military Expenditure (% of GDP)	1.803313 (1.584703)	2.176491 (1.36108)	1.667382 (0.9033414)
Military Expenditure* (% of government expenditure) p = 0.0620	5.850695 (4.447355)	7.783124 (5.628609)	5.349736 (3.509054)
Military Expenditure*** (current USD) p = 0.0002	6.68e+09†† (1.54e+10) vs group 3	5.29e+09†† (1.08e+10) vs group 3	8.01e+10†† (2.04e+11) vs group 1 & group 2
Human Development Index	0.7134419 (0.1544932)	0.7277031 (0.1520804)	0.7586667 (0.1376559)
EIU Democracy Index* (Scale 0-10) p = 0.0566	5.558608† (2.096973) vs group 2	4.706508† (2.332046) vs group 1	5.793636 (2.647721)

Note: * = p < 0.10; ** = p < 0.05; *** = p < 0.01; † = p for HSD < 0.10; †† = p for HSD < 0.05

Table 1 shows the data for the two tailed t-tests between countries with and without conscription. In this case, the data for de jure countries were excluded so that direct comparisons between the two other populations could be made. Columns 2 and 3 provide information on the means of the two populations for the given variable with standard deviations listed in parentheses. Statistical significance has been denoted for p values less than the critical value $\alpha=0.05$ with **. Although statistical significance should exclude p-values between 0.05 and 0.10, they were included for additional reference and will be discussed as potential factors related to

conscription; however, inferences drawn regarding these t-tests cannot be deemed as achieving as high a level of certainty as those with p values less than the critical value.

Table 2 shows the data for the one factor ANOVA and Tukey HSD tests for three populations: countries with conscription, countries without conscription, and de jure countries. As denoted in Table 1, statistical significance has been denoted for p-values less than the critical value $\alpha=0.05$ with **, but F-tests with p-values between 0.05 and 0.10 were noted with *. The latter were included for additional reference for discussion, but related inferences should be treated with the same caution as explained above. For variables whose mean values for the three groups were found to be statistically different, Tukey HSDs were evaluated. If honestly significant differences between pairs existed, they were noted with †† ($p < 0.05$) and with † ($0.05 < p < 0.1$).

Discussion

First, countries with conscription and countries without it have significantly different means when it comes to military expenditure as a percentage of government expenditure. Looking at the data in Table 1 and Figure 1, the mean military spending (as a % of government expenditure) of states with conscription is significantly higher, with a p value of 0.0383. Therefore, we can reject the null hypothesis at the 5% certainty level and conclude that there is a statistically significant difference in the means of military expenditure as a percentage of government expenditure between countries with conscription and without.

One potential theory explaining the higher proportional rates of spending is the high cost of conscription as well as the prioritization of security with government funds by states. More in line with realist theory over liberal theory, countries will seek to enhance their security and acquire power as the world is in anarchy. In order to do so, states will need hard power, whether through soldiers, technology, and/or weapons. Conscription is an option for some countries to increase protection, but forced military service is expensive to set up and leads to lost opportunity cost for a country. The CATO institute reports that direct governmental costs coming from “bureaucracy, enforcement, and productive job...and education” impose losses for society (Bandow, 2021). Added to these costs is the cost of training, whether for short- or long- term, less or more motivated recruits. Therefore, states must spend more to maintain a strong military, even if their recruit numbers are high. This cost shows in the aggregate where conscripted states must spend more of their budget on the military. This is also exhibited in the lower percentage of government expenditure allocated to military expenditure for de jure countries (with an ANOVA F-test p-value of 0.0620, though not statistically significant at the 0.05 level), as exhibited in Table 2.

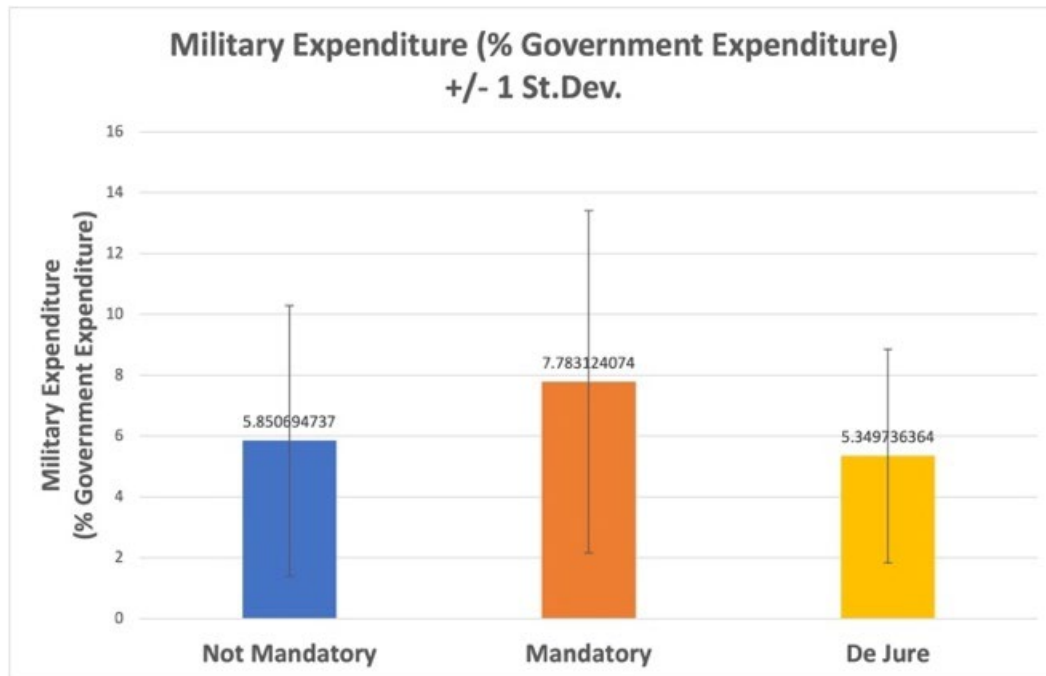


Figure 1. Military Expenditure (% Government Expenditure) for Countries with Conscription, Countries without Conscription, and De Jure Countries

Furthermore, states that conscript may view security to be an extremely high priority and commit to more military spending in other venues such as in new technology or weapons. If such realist states wish to have power and not project weakness abroad, they may spend and invest in addition to conscription at higher rates than states which may not see state security as important. For instance, both Iran and Israel rank 14th and 18th in the Global Fire Power 2022 Military Strength Ranking, and both are involved in conscription as well as heavy military spending. With 13.9% of government expenditure on military spending, Iran has top-10 tanks, artillery, and transports in the world showing their depth of investment. Similarly, Armenia ranks fifth on the Global Militarisation Index with strengths in active personnel and heavy weapons due to their conscription, while spending 16.5% on the military. These validate theories of states continuing to be security seeking as shown in their conscription status.

However, just because states do not have a conscripted, large army does not mean that they do not spend on the military. In fact, countries without conscription on average spend more in absolute terms on military expenditure than countries with conscription policies in current USD (see Figure 2); de jure countries on average spend the most with a mean military expenditure of a little over \$80 billion USD. The military expenditures as percentages of government spending mask the real amounts of money being invested into the military. Potential explanations for why countries without conscription and de jure countries spend more in absolute terms may include investment into better technology or the employment of professional, voluntary military personnel. For instance, the United States continues to sell arms to Saudi Arabia, recently approving “\$3 billion for Patriot missiles,” to a country with no mandatory service (Matthew Lee, 2022). It may also be associated with larger costs associated with larger countries with larger government expenditures in real numbers.

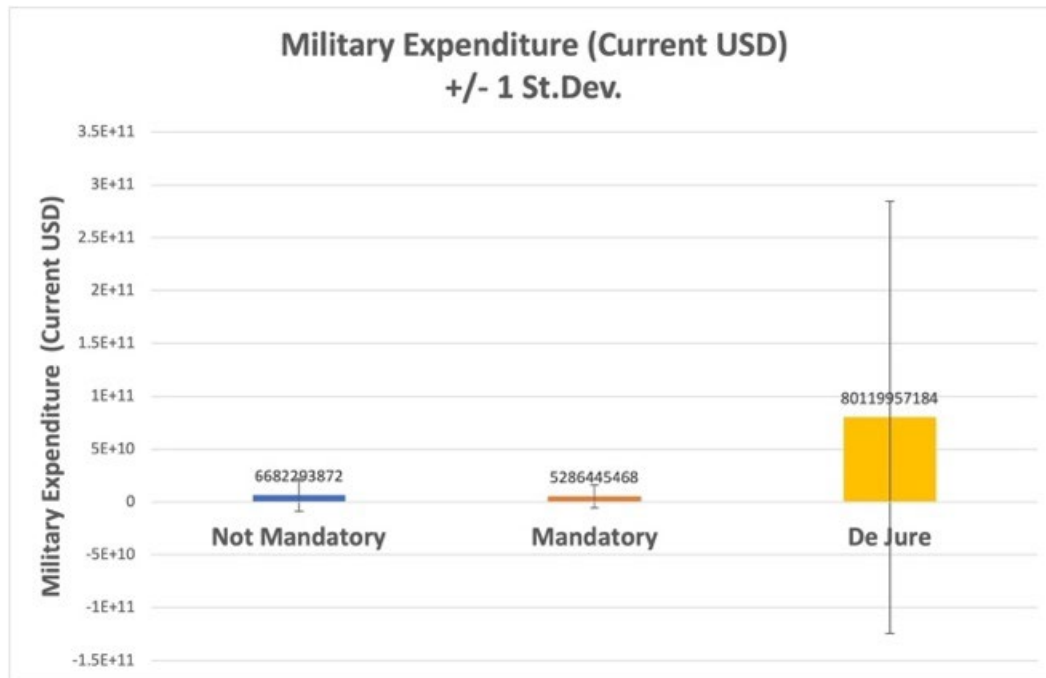


Figure 2. Military Expenditure (Current USD) for Countries with Conscription, Countries without Conscription, and De Jure Countries

Next, the ANOVA results from the imports of goods and services data in Table 2 can be assessed using liberal theory and by extension, capitalist peace. The 0.0463 p-value associated with ANOVA's F-test is below the 0.05 alpha signifying that the null hypothesis of equality of means can be rejected; therefore, at least one of the means of the three groups is statistically different. The data shows that states without conscription on average, have higher total amounts of imports of goods and services, meaning that they exhibit higher levels of trade (see Figure 3). By volume, non-conscripted states deal with 1.23×10^{11} or \$123 billion worth of imports and de jure countries with 3.51×10^{11} or \$351 billion, substantially higher than the \$94.6 billion worth of imports of conscripted states. The results match with expectations depicted by the capitalist peace theory: states with more trade and ties will not go to war and will avoid conflict so as to protect their economy. The financial ties created between states through trade specifically creates an incentive to pursue peaceful options, seeking increased soft power over the building of hard power for state security. Thus, one would expect for conscription to become laxer or even cease to exist with greater trade since the interconnectedness provided by trade would mean states would no longer have to invest in protecting themselves from hostile countries. Further confirming this idea, the data indicates that states without mandatory conscription not only have a statistically significant lower volume of imports, but also lower levels of exports as a percentage of GDP. The existence of greater trade can be linked with the reduction of conflict seeking or conflict deterring actions, such as through non-conscription policies or the annulment of previously implemented conscription.

Finally, the EIU democracy index provides insight into states with conscription and their relationship with democratic values, political freedoms, and civil liberties. As previously mentioned, the EIU Democracy Index utilizes 60 indicators grouped in 5 main dimensions. Questions include whether elections for the national legislature and head of government are free; whether freely elected representatives determine government policy; and whether there is a free electronic media. The t-test p-value of 0.0236 data in Table 1 reveals a statistically significant difference in means between countries that do not have conscription versus those that do. The ANOVA F-test p-value of 0.0566, though slightly above the critical value of 0.05, and Tukey HSD also lend support to this conclusion.



Figure 3. Imports of Goods and Services (2015 USD) for Countries with Conscription, Countries without Conscription, and De Jure Countries

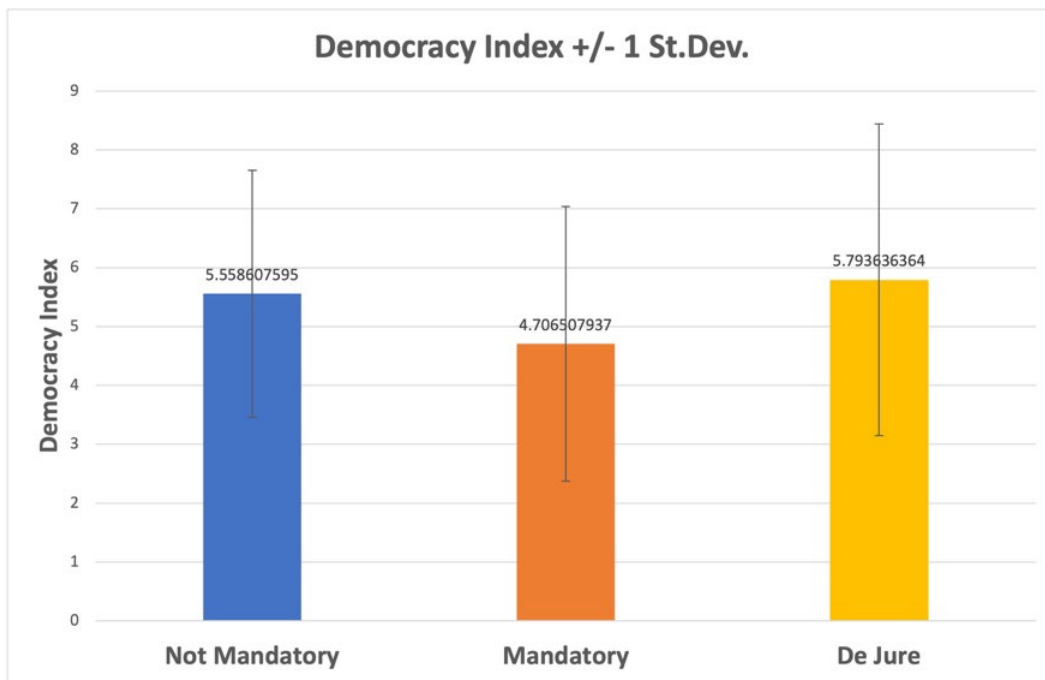


Figure 4. EIU Democracy Index for Countries with Conscription, Countries without Conscription, and De Jure Countries

In this case, non-conscription countries have a significantly higher democracy index score (on a scale of 0-10) compared to countries with conscription. Specifically, non-conscription countries' EIU Democracy Index values are almost a point higher on average. The significant difference aligns with previous assumptions, as conscription is a legally binding, mandatory decision made by the government to force civilians into military

service. Conscripted soldiers are often paid little and have poor living conditions as evidenced by Singapore's \$5000 a year salary for each soldier (Henderson, 2012). Mandatory service may violate many basic liberties and freedom of choice but is also a part of the social contract between a state and its citizens.

Similar to the analysis of trade, the democratic index data aligns with liberal theories and can be analyzed with the Democratic Peace Theory (DPT). The DPT argues that democratic countries do not go to war with each other due to factors like institutional constraints from the media to the voting public as well as the culture of peaceful resolution of domestic conflicts that extend to the international sphere (Lynn-Jones, 1998). More democratic countries, therefore, do not have to invest as much into hard power, and can rather attempt to gain soft power to have good ties with other democracies. Therefore, it is conceivable that states that have a lower democracy rating conscript their citizens not only because their norms and historic practices allow them to function less democratically but also because they have less support from the international community, and thus fewer allies. Also, states that do not conscript can do so and still secure themselves because their more democratic status deters other democracies from attacking them.

Moreover, as mentioned above, lower military spending could mean that states can instead use the money to invest in other parts of their country. For example, due to budget increases in the U.S military, the “\$110-billion increase Biden had sought for civilian programs [was] reduced by more than half,” showing how important a smaller budget could be for a state. Better distributed money with less focus on hard power could be potentially used for a better, fairer society leading to higher attainment of democratic ideals where citizens are prioritized.

One point of interest relates to de jure countries and the explanation for their relatively high values compared to both conscription and non-conscription countries. This phenomenon can be seen in both the import data as well as in the democracy index. For instance, de jure countries' imports of goods and services are over two hundred billion dollars larger than those of the other two country types, while the democracy index is slightly higher (see Table 2). These high values may indicate how de jure countries may be more highly developed, no longer needing to invest as much in their own security nor needing to increase their hard power; instead, they may be focusing on improving quality of life and connecting with other countries around the world to reap the benefits of globalization. However, because of the diversity of the de jure states from the US, Belize, and Slovakia, more research should be done to analyze the progression of de jure states and their policy changes over time.

The final theory to explore in relation to liberalism is the Golden Arches Theory. The analysis of the binary existence of McDonalds in countries without conscription revealed that 45 had a McDonalds, while 45 did not. In countries with conscription, 37 had a McDonalds, while 28 did not. In de jure countries, 8 had McDonalds and 6 did not. If the Golden Arches Theory were correct and could be applied to conscription, nation states that have achieved a certain level of economic development—and with it, a large enough middle class that would support a McDonalds—would be impelled by its citizenry to avert war and displays of power, such as the conscription of large multitudes of their citizens, that might raise tensions. As citizens would prefer waiting in line for a McDonalds meal to going to war, they would apply political pressure on their respective governments to prevent or annul conscription. However, the data indicates that countries with conscription have McDonalds at a higher rate than countries without conscriptions, undermining the theory that states would be less inclined to conscript their citizens when they have reached high levels of globalization. Furthermore, the p-value of the chi-square test statistic was 0.664, above the alpha of 0.05; therefore, the null hypothesis of independence could not be rejected, indicating that country type as it relates to conscription and the presence of McDonalds were independent of each other. The Golden Arches Theory, therefore, does not provide a relevant framework to understand differences in patterns of conscription amongst the variegated countries.

Acknowledgments

I would like to thank my advisor for the valuable insight provided to me on this topic.

References

Arraf, Jane and Chubko, Oleksandr. (2022, July 25). As Ukraine Signs Up Soldiers, Questions Arise About How It Chooses. *The New York Times*. Retrieved July 29, 2022, from <https://www.nytimes.com/2022/07/25/world/middleeast/ukraine-soldiers-recruitment-draft.html#:~:text=Ukraine%20has%20long%20had%20conscription,having%20at%20least%20three%20children.>

Asal, V., Conrad, J., & Toronto, N. (2017). I Want You! The Determinants of Military Conscription. *Journal of Conflict Resolution*, 61(7), 1456-1481.

Bandow, Doug. (2021, March 10). In the World's Most Militarized Power, Conscription is a Tool of War. *Antiwar.com*. Retrieved August 24, 2022, from <https://original.antiwar.com/doug-bandow/2021/03/09/in-the-worlds-most-militarized-power-conscription-is-a-tool-of-war/>.

Bonn International Centre for Conflict Studies. (no date). Global Militarisation Index 2020. *Bonn International Centre for Conflict Studies*. Retrieved August 15, 2022, from <https://gmi.bicc.de/ranking-table?year=2020>.

Carpenter, Charli. (2022, July 15). Civilian Men are Trapped in Ukraine. *Foreign Policy*. Retrieved 2022, July 29, from <https://foreignpolicy.com/2022/07/15/ukraine-war-conscription-martial-law-men-gender-human-rights/>.

Conley, D., & Heerwig, J. (2012). The Long-term Effects of Military Conscription on Mortality: Estimates from the Vietnam-era Draft Lottery. *Demography*, 49(3), 841-855.

Countries with Mandatory Military Service. (2022). *World Population Review*. Retrieved May 1, 2022, from <https://worldpopulationreview.com/country-rankings/countries-with-mandatory-military-service>.

Democracy Index 2021. (2022). *The Economist Intelligence Unit*. Retrieved May 1, 2022, from <https://www.eiu.com/n/campaigns/democracy-index-2021/>.

Friedman, T. L. (2012). *The Lexus and the Olive Tree: Understanding globalization*. Picador.

Gartzke, E. (2007). The Capitalist Peace. *American Journal of Political Science*, 51(1), 166-191.

Hayda, Julian. (2022, August 24). 6 Key Numbers that Reveal the Staggering Impact of Russia's War in Ukraine. *National Public Radio*. Retrieved August 25, 2022, from <https://www.npr.org/2022/08/24/1119202240/ukraine-russia-war-by-numbers>.

Henderson, David. (2016, November 26). Eliminating Conscription in Singapore. *Econlib*. Retrieved August 15, 2022, from https://www.econlib.org/archives/2012/11/eliminating_con.html.

- Hjalmarsson, R., & Lindquist, M. J. (2019). The Causal Effect of Military Conscription on Crime. *The Economic Journal*, 129(622), 2522-2562.
- Hubers, F., & Webbink, D. (2015). The Long-term Effects of Military Conscription on Educational Attainment and Wages. *IZA Journal of Labor Economics*, 4(1), 1-16.
- Human Development Index (HDI). (2022). *United Nations Development Programme*. Retrieved May 1, 2022, from <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>.
- Hutt, David. (2022, July 26). Which European Countries are Rethinking Military Service amid Ukraine War? *Euronews.com*. Retrieved August 7, 2022, from <https://www.euronews.com/my-europe/2022/07/26/which-european-countries-are-rethinking-military-service-amid-ukraine-war>
- Iran Military Strength. (2022). *GlobalFirePower.com*. Retrieved August 15, 2022, from https://www.globalfirepower.com/country-military-strength-detail.php?country_id=iran.
- Jervis, R. (1976). *Perception and Misperception in International Politics* (REV - Revised ed.). Princeton UP. <https://doi.org/10.2307/j.ctvc77bx3>
- Lee, Matthew. (2022, August 2). US Approves Massive Arms Sale to Saudi Arabia, UAE to Counter Iran. *Associated Press*. Retrieved August 15, 2022, from <https://apnews.com/article/biden-iran-united-arab-emirates-saudi-arabia-yemen-2821c88775fe4eafd68b802676aa4eb6>.
- Levy, J. S., & Thompson, W. R. (2011). *Causes of War*. Wiley-Blackwell.
- Lynn-Jones, Sean M. (1998). Why the United States Should Spread Democracy. *Harvard University Kennedy School, Belfer Center for Science and International Affairs*. Retrieved August 12, 2022, from <https://www.belfercenter.org/publication/why-united-states-should-spread-democracy>.
- Malt, S. (n.d.). *An International Relations Theory Guide to the War in Ukraine*. *Foreign Policy*. Retrieved August 26, 2022, from <https://foreignpolicy.com/2022/03/08/an-international-relations-theory-guide-to-ukraines-war/>
- Morgenthau, H. J., Thompson, K. W., & Clinton, W. D. (1948). *Politics among Nations: The Struggle for Power and Peace*.
- Pifer, Steven. (2020, March 17). Crimea: Six Years after Illegal Annexation. *The Brookings Institution*. Retrieved July 27, 2022, from <https://www.brookings.edu/blog/order-from-chaos/2020/03/17/crimea-six-years-after-illegal-annexation>.
- Poutvaara, P., & Wagener, A. (2007). To Draft or Not to Draft? Inefficiency, Generational Incidence, and Political Economy of Military Conscription. *European Journal of Political Economy*, 23(4), 975-987.
- The Strange Role of Conscription in Ukraine's War. (2022, March 26). *The Economist*. Retrieved July 14, 2022, from <https://www.economist.com/europe/the-strange-role-of-conscription-in-ukraines-war/21808446>.

Ukraine Reinstates Conscription as Crisis Deepens. (2014, May 2). *British Broadcasting Company*. Retrieved July 27, 2022, from <https://www.bbc.com/news/world-europe-27247428>.

United Press International. (2013, October 3). Ukraine to End Military Conscription After Autumn Call-ups. *United Press International*. Retrieved July 27, 2022, from https://www.upi.com/Top_News/Special/2013/10/03/Ukraine-to-end-military-conscription-after-autumn-call-ups/95521380772920/.

Waltz, K. N. (1979). *Theory of International Politics* (Reiss. ed.). Waveland.

Westerman, Ashley. (2022, August 15). Ukrainians Express Worries over Conscription Following Russia's Invasion. *National Public Radio*. Retrieved August 22, 2022, from <https://www.npr.org/2022/08/15/1117605630/ukrainians-express-worries-over-conscription-following-russias-invasion>.

World Development Indicators. (2022). The World Bank: DataBank. Retrieved May 1, 2022, from <https://databank.worldbank.org/source/world-development-indicators>.