



GÖTEBORGS
UNIVERSITET

DEPARTMENT OF POLITICAL SCIENCE

EXPLAINING VOTING BEHAVIOUR IN THE UNITED NATIONS GENERAL ASSEMBLY

A quantitative study of the case of arms exports as
a tool for vote-buying

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Master's Thesis:	30 credits
Programme:	Master's Programme in International Administration and Global Governance
Date:	22.05.2024
Supervisor:	Agnes Cornell
Words:	15867

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List of abbreviations

UNGA = United Nations General Assembly

MCW = Major conventional weapon

USAID = United States Agency for International Development

UNSC = United Nations Security Council

IPE = Ideal Point Estimate

CoW= Correlates of War

Acknowledgements

Writing a thesis is a major project during anyone's studies but I can say it has also contributed a lot to my own learning and academic knowledge and practice. I want to thank everyone assisting, helping or motivating me during this process. This might include people and comments that did so without intention, as well.

But special thanks shall be given to my supervisor Agnes Cornell for her patient reading through countless sometimes more, sometimes less self-explanatory paragraphs and giving me a similar number of helpful comments and suggestions. Next, my parents deserve a mentioning who have made this adventure in Gothenburg possible in the first place and who had to endure some of my unorthodox strategies for time management during this last semester. Yet they knew I had a plan and had trust in its implementation. And last but not least I want to thank all people who have made the gloomy days and weeks in Gothenburg a little less gloomy and, by that, laid the foundation for the numerous productive days spent with working on this thesis.

Abstract

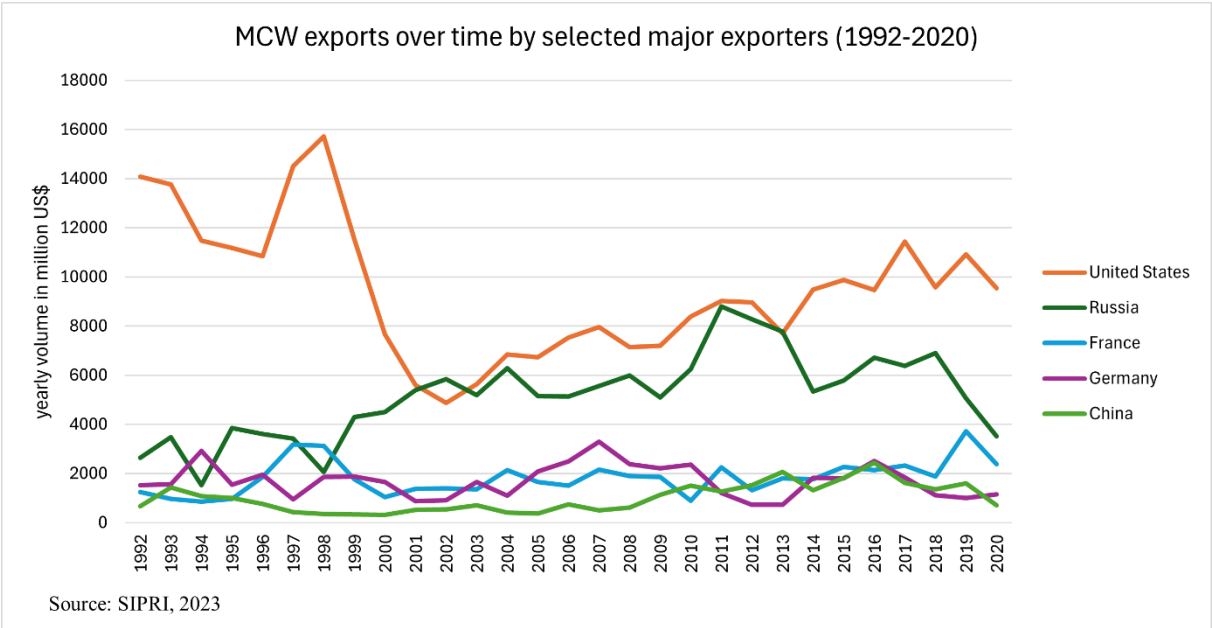
Do exports of major conventional weapons buy votes in the United Nations General Assembly (UNGA)? Research has identified several domestic and external aspects to explain voting behaviour. Yet, arms transfers have largely been ignored as factor. This thesis aims at shedding light on the relationship between a country's arms imports and its voting behaviour relative to the arms exporter. The central theoretical argument put forward in this thesis draws back on technological and logistical dependencies of the importer of arms on the exporter resulting from importing arms. Subsequently, I hypothesize that the importer has an incentive to align its voting behaviour in the UNGA with the exporter. From the exporter perspective, this mechanism can be viewed within the theoretical concept of vote-buying. To test this hypothesis, the quantitative empirical analysis uses data for the period between 1992 and 2020 and covers a total of 162 importing countries in the full model. Five major arms exporters are examined: Russia, the US, France, Germany and China. Linear regression models with fixed effects and different lags in the independent variable are used to test the proposed theoretical relationship. The results suggest a small and significant effect for Russian arms transfers only in the time period before 2013, while the effect becomes insignificant for the entire period of investigation. Further, the analysis provides no support for the hypothesis in the cases of the other four exporters.

1. Introduction

Major conventional weapons (MCW) such as tanks, armoured vehicles, fighter aircraft or ships are the backbone of a modern state's defence capabilities for security within and outside its territory (Johnson, 2020, p. 851). Many states produce parts of their equipment domestically, but most advanced MCW are produced by only a small number of states (Stohl & Grillot, 2009, p. 43; Thurner et al., 2018; Wezemann et al., 2023). Measuring the volume, approximately 90% of all exported arms come from just ten producing countries (SIPRI, 2023). On the other hand, out of 193 states recognized by the United Nations, 180 states imported arms for military use between 1992 and 2020 (SIPRI, 2023). The major arms exporters sell goods with a yearly value of one to ten billion US\$ each, with the US occasionally surpassing the ten billion US\$ mark (figure 1).

This thesis focuses on the transfers of MCW from one country to another. Its aim is to investigate whether these internationally traded arms and their resulting dependencies contribute to the explanation of importers’ voting behaviour in the United Nations General Assembly (UNGA). The research question, therefore, is ‘*Do exports of major conventional weapons buy votes in the United Nations General Assembly?*’ and addresses the empirical and theoretical gap in research on the nexus between voting behaviour in the UNGA and arms transfers.

Figure 1: MCW exports over time by selected major exporters (1992-2020)



To start with, it is important to note that arms are not just any tradable good like consumer electronics or machinery (Martínez-Zarzoso & Johannsen, 2019, p. 7; Stohl & Grillot, 2009, p. 44; Willardson, 2013, p. 44). Their implications for the conditions of trade are substantially different in the way that governments need to approve all sales and governments are the actors which buy arms for their security forces (Klecicka et al., 2020; Smith & Tasiran, 2005, p. 167). By doing so, although states typically do not manufacture arms directly, but private or half-private companies do, the granting of export permissions adds an inherent political dimension to the international arms sales.

An issue which has been mostly overlooked is the way in which importing arms creates a dependency of the importer on the exporter and, consequently, the resulting political

implications of this dependency. At this point, research has mainly focused on aid as a factor states use to influence other states' voting behaviour in the UNGA, but not on the nexus between voting and arms transfers. This represents the research gap this thesis aims to address. In order to fill this gap in explaining voting behaviour in the UNGA, I use a novel argument that as a result of the dependency from importing arms, the importer has an incentive to maintain good relations with its supplier. One simple way for importers to signal their political support to the exporter is through its voting behaviour in the United Nations General Assembly. Therefore, we can expect an alignment in voting after an arms transfer has taken place.

In this thesis, the focus is on five major exporters of MCW in the post-Cold War period: the United States, Russia, France, Germany, and China. This sample represents more than three quarters of the volume of internationally transferred MCW (SIPRI, 2023). These five countries are a compromise between a heterogenous sample by including two non-NATO members and a reasonable scope by limiting the number of exporting countries to five. Examining the arms exports of these five countries provides a valuable contribution as they cover three continents and different political and military alliances. Depending on the model, a total of up to 193 importing countries are included representing a close to full coverage of countries worldwide. I use linear regression models with different specifications including a number of control variables, fixed effects and different lags to test my hypothesis.

To anticipate the results, I find no significant relationship between general arms imports and voting behaviour of the importer for the entire period of investigation. Only for arms imports from Russia does a correlation with a small effect size appear, yet only when limiting the period until 2012. For the entire period from 1992 to 2020, the arms transfers by none of the five examined exporting countries is significantly correlated with importer voting behaviour in the years after. One potential reason for this finding on Russian arms might be the changing geopolitical context during the period of investigation. It is possible that, as Russia finds itself increasingly isolated, it had less leverage with its arms exports to induce a voting alignment on the importer side. This fits the general picture that Russian arms exports have seen a sharp decline since their peak in 2011.

The structure of the thesis is as follows. We start with an overview over the existing literature on voting in the UNGA and an introduction to the concept of vote-buying. Second, I present my theoretical argument on arms imports dependencies and how that might explain states' voting behaviour in the UNGA. That chapter will also elaborate on the incentives and interests

on both the importer and exporter side. Next, the structure continues with the variables, data sources and the empirical strategy. Then, a detailed presentation of the results including various robustness tests follows. Finally, I discuss the findings and the limitations of the approach used in this thesis.

2. Literature Review

Before we can answer the research question, it is helpful to take a look on existing research on the topic. While a range of factors can affect voting behaviour in the UNGA, we are most interested in the way states influence other states in their voting behaviour to ‘buy’ political support. The literature review starts with the dependent variable of voting in the UNGA giving an overview over the relevance of votes and what motivations they may reflect. It then continues with the introduction to the concept of vote-buying in the context on foreign aid and, finally, it leads over to the comparability of arms transfers and foreign aid as tools for vote-buying.

2.1 Voting in the United Nations General Assembly

Voting in the UNGA refers to the process of voting on resolutions on a specific issue. Every member state to the UN can attend and vote yes, no, or abstain. The General Assembly convenes in sessions roughly matching one calendar year each (United Nations, 2024).

Although votes are non-binding, by voting in a certain way states can reveal their policy preferences and display their position towards other states (Gartzke, 1998; Lai & Morey, 2006). This phenomenon can be described as signalling (Mandler & Lutmar, 2021, p. 90). Therefore, voting in the UNGA is not just a minor detail of foreign policy, it is consequential (Dreher & Jensen, 2013, p. 185).

UN resolutions cover a broad range of political issues. The most frequent category concerns the relationship between Israel and Palestine, followed by human rights and arms control issues (Voeten et al., 2009). In the first decades after the foundation of the United Nations, votes on colonialism made up a large share of all votes.

Scholars have identified a number of different factors that can influence how states vote on a certain issue. First, voting reflects alliances in the international political arena and states considered friends or allies should, on average, show similar voting patterns (Young & Rees,

2005; Yu, 2022). One central dimension of official or unofficial alliances are domestic factors two states share such as voting behaviour by regime type, human rights record or leadership (Boockmann & Dreher, 2011; Dreher & Jensen, 2013). Another reason for changes in voting are changing interests from an old to a new government, resulting in an observable change in signalled policy position by voting in the UNGA (Smith, 2014). This is connected to the finding that UNGA voting behaviour can be a function of government ideology, with left-wing governments being less likely to vote in line with the US (Potrafke, 2009).

Constructivist explanations focus on the identity and values a state has and projects onto other states (Onuf, 1989). This means that, according to this argument, states with similar ideas and expectations about what is right and wrong should be more likely to vote similarly. Identity indeed seems to partially explain voting patterns in the UNGA (Haixia, 2023). However, material gains as a motivation to vote in a specific way appear to be more influential (Dreher & Jensen, 2013). That is, when a state expects economic or security benefits by voting for or against a resolution, it will most likely do so regardless of other parallel or conflicting motivations. In fact, economic factors are well documented to influence the voting behaviour of states (Gartzke, 1998, 2000; Russett, 2001). They can include, for example, trade benefits or the threat of sanctions (Lektzian & Biglaiser, 2023). Furthermore, foreign aid can be an important economic factor influencing a states' voting decision (Dreher et al., 2018). We will go into depth on this issue below.

Finally, UNGA votes can be interpreted as a manifestation of alignment between different states (Gartzke, 1998; Smith, 2014; Voeten, 2015). They are the result of a deeper mutually beneficial relationship between two countries and indicate an interest in remaining close.

To summarize this section, voting in the UNGA is a way for states to express their preferences and is influenced by different motivations and factors. Major aspects to predict voting behaviour include economic or security interests. Further, alliances are often reflected in similar voting patterns between allied states.

2.2 Vote-buying in the UNGA

To take a slightly distinct perspective we turn to the concept of vote-buying, another important angle in research which revolves around the question of how states influence other states in

their voting (Hwang et al., 2015). In the context of this thesis, a particular focus lies on vote-buying as an explanation for voting behaviour as this provides the theoretical framework from the exporter perspective.

We are interested in arms transfers and their possible use to buy votes from other states. Exporting arms often serves as an item in the toolbox of a state's foreign policy (Stohl & Grillot, 2009, p. 47). A central part of this argument is the concept of vote-buying on which a comprehensive body of literature exists. Unfortunately, nearly all work on vote-buying in the UNGA is related to US development aid as the tool which is why this serves also as this literature review's angle on the concept. Yet as I argue at the end of the section, the argument is well transferrable to arms transfers.

The concept of vote-buying originates in the context of national elections (Nichter, 2008). However, in our context it has been used to describe a phenomenon in the UNGA where one state offers another state a reward in return for the latter's favourable voting behaviour (Alexander & Rooney, 2019; Lockwood, 2013).

Why do states have an interest to buy votes? A high number of states voting in line with a state's position can increase the latter's political legitimacy (Carter & Stone, 2015). To achieve this, vote-buying can be one possibility. Contrarily to the original intention behind the United Nations, Vreeland (2019) shows how UN institutions can be corrupted by powerful states to work in their interest. This comes as no surprise amid the fact that other studies have shown the prevalence of selfish aid allocation reflecting utility maximizing behaviour of states (Alesina & Dollar, 2000; Bickenbach et al., 2019; Dreher et al., 2008). In the 20th century, US aid did not seem to be correlated with the voting behaviour at the UNGA by recipient states (Wang, 1999, p. 201). As Wang points out, however, this could be due to the short time periods and simple regression analyses and the non-filtration of important votes. An effect does seem to exist when only investigating voting behaviour on resolutions classified as 'important' by the US state department. This means that more development aid has gone to those countries that aligned themselves politically with the United States in votes that 'matter' to the government of the United States. By using cross-sectional time-series data, Wang shows that the aid likely induced the vote alignment and not vice versa (ibid.).

Anyway, vote-buying is an official US-policy since the 1980s (Carter & Stone, 2015). This means that the United States Agency for International Development (USAID) is obliged to consider voting records of other states in their aid allocation.

Investigating the time after the Cold War, one work has suggested the US has actually allocated more aid to countries with lower voting similarity (Woo & Chung, 2017). This could reflect the intention to influence actors not in line with US voting yet and use the aid as a pre-emptive incentive instead of a reward to states already being considered allies. Another piece pointing in this direction is the finding that countries which are about to gain a temporary seat in the UN Security Council receive more aid by the United States (Kuziemko & Werker, 2006). This is likely to reflect the intention of buying votes in the Security Council. Dreher et al. (2021) examine the effectiveness of this practice more thoroughly and only find an effect for countries with a temporary seat in the UN Security Council (UNSC) that show similar voting behaviour as the US. Other studies, on the other hand, do suggest the presence of vote-buying through US aid in the UNGA and in the UNSC (Alexander & Rooney, 2019; Carter & Stone, 2015). Similar results have also been shown for German aid allocation (Dreher et al., 2015).

Based on a number of studies thus far, vote-buying seems to be an established practice in the arena of the United Nations, at least when looking at the intention. Whether the attempts finally result in a more favourable voting behaviour is less clear though.

However, research has mainly focused on development aid and mainly on vote-buying by the United States. In contrast, research has hardly examined the relationship between voting, vote-buying, and arms transfers. Whether arms transfers affect voting behaviour of importing countries lacks research in depth and width. Nevertheless, it is plausible to assume that states also try to use their arms exports as a means to buy votes in the UNGA. Thus, this work provides an alternative explanation for voting behaviour in the UNGA by investigating arms transfers between countries and the resulting incentive structures. This may be true especially when we account for the fact that arms transfers are likely to create dependencies on the side of the importer (more on this in section 3.3).

2.3 Arms transfers and voting in the UNGA

Before we turn to the case of arms imports, at this point it makes sense to compare the cases of foreign aid and arms transfers. First of all, the two do not necessarily have to be strictly

separated. That is, some major conventional weapon systems are transferred as military aid at concessional terms for the recipient (Brzoska, 2004, p. 111). Second, both foreign aid and arms transfers share the feature that the recipients expect a benefit from receiving them. This means that they have an incentive to keep the flow of aid or, respectively, arms imports going as long as they see a benefit in it. Assuming that the donors or suppliers are aware of that, they might use their aid or arms transfers as a means to achieve certain ends in respect of the recipient such as altering their voting behaviour. This might be the case especially when military equipment is donated or transferred at concessional terms and therefore no repercussions on the exporting defence companies for breaching contracts are expected.

The big difference, however, lies in the nature of the two ‘goods’. While aid tends to come from multiple donors, imported arms provide the incentive to rely only on few suppliers (for more details see section 3.3). Especially within one weapon category, importers are much more reliant on a single supplier than they are in the context of foreign aid since it makes little sense to operate tanks from 10 different suppliers, as an example. What is more, foreign aid mainly consists of financial resources which are highly substitutable thus making it more difficult for a donor to exert pressure by threatening to withhold aid transfers. On the other hand, weapon systems are specialized goods and timelier to produce (Defence Industry Europe, 2023). So, it is harder for importers to quickly substitute withheld weapon systems at low logistical costs and therefore easier for the suppliers to use them as a coercive tool.

To sum up, research suggests that aid can be used by the donor as a means of foreign policy. While the transfer of military equipment is somewhat different in its substitutability and potential for the use as a coercive tool, it can be argued that this difference to aid is what even exacerbates its potential to be exploited for emerging dependencies and used as a tool for vote-buying in the UNGA. Therefore, the argument of vote-buying in the UNGA based on the arms transfers from individual supplier states is worth an empirical scrutiny. This thesis aims to bridge that intellectual gap of the relationship between arms imports and voting in the UNGA by analysing whether arms transfers by specific exporters have an influence on the voting behaviour of the importing states.

In fact, in the specific case of the Russo-Ukrainian war starting in 2022, countries having signed a defence cooperation agreement with Russia were less likely to condemn Russia’s invasion (Farzanegan & Gholipour, 2023). This can be taken as a cautious hint towards the relevance of military factors influencing voting behaviour. While the exact theoretical mechanism behind

this finding remains unclear, it is possible that a similar relationship exists in the context of arms transfers and in voting behaviour in general, not just in the specific vote issue of this conflict.

Martínez-Zarzoso and Johannsen's work (2019) is a rare example to cover this relationship and it analyses the correlates of arms transfers. It is likely the most specific contribution to the research question of this thesis. They find that countries that vote more in line with the United States in the UNGA are less likely to engage in arms transfers in general. Further, voting similarity between trading partners were significant during the Cold War, but not since 1990. This suggests a decline in the relevance of the strategic alignment with friends. The central limitation of Martínez-Zarzoso and Johannsen's paper is, however, the mere focus on correlations within trading dyads. The results, therefore, do not allow to make assumptions about the distinction between exporters and importers nor the direction of a potential causal link. First, the finding that more politically aligned states in the UNGA trade more arms could mean that the arms transfer is a result of the alignment and not the cause. Cross-sectional time-series data including a lag in the independent variable would allow to test whether a change in voting behaviour occurs after an arms transfer. Second, no differentiation between exporters and importers is made. Both shortcomings are addressed in this thesis which is the empirical contribution it makes.

3. Theoretical argument

Up to this point we have learned about voting in the UNGA, what factors influence voting behaviour and the concept of vote-buying. My contribution to the explanation of voting behaviour is to look at arms transfers. I argue that importing large amounts of weapons from a specific country leads to dependencies of the importer on the exporter which then, work as an incentive for the importer to align its voting behaviour in the UNGA with the exporter.

Two actors are involved in this argument: the exporter and the importer of an arms trade deal. First, I will discuss why countries export arms in the first place and which interests and motivations are prevalent on the exporter side. The exporter perspective allows us to understand why states export critical goods like weapons and the importer perspective allows us to understand why importers import MCW despite the risks associated with it. Second, I turn to the importer side and elaborate on the motivation to import arms accepting the risk of

dependency. There, I will argue that arms imports cause technological and logistical dependencies and explain how that is linked to the importer's voting behaviour.

3.1 Why do states export arms?

So, why do states trade MCW in the first place? Before thinking about the dependencies arms imports can create, we have to take a step back and think about the structural arguments and incentives behind trading arms.

Starting with the exporter it can be asked whether creating dependencies on the importer side is actually the primary goal or what other reasons might exist for a state to allow the exports of advanced weapon systems. This question can be looked at from different angles. From an economic perspective on arms exports, the monetary revenue and the economic gains in terms of employment of exporting MCW can be one reason to export arms (Akerman & Seim, 2014; Comola, 2012; Johnson, 2015). However, its contribution to total economic output is comparatively small.¹

What seems a more relevant economic factor are the high and ever-increasing research and development and production costs of modern MCW (Keating & Arena, 2016; Kleczka et al., 2020). The reason costs have exploded since the Second World War can be found in the fact that MCW are 'tournament goods' (Hove & Lillekvelland, 2015, p. 19). This means, that the interaction with the corresponding MCW on the opponent side in a war determines the utility of one's own MCW. To give an example, whenever a fighter aircraft achieves technological superiority, there is an inevitable pressure to innovate for the manufacturers of other fighter aircrafts or air defence systems in order to at least reestablish a balance. This leads to a spiral of costs for each manufacturer to maintain a top position in the global market for arms. Amid stagnating or decreasing military expenditures in Europe after the Cold War (until 2021) (Kleczka et al., 2020), the choice many western exporters have seen themselves confronted with is losing their domestic arms industry due to cost pressure or to export the MCW to spread the R&D costs over a higher number of units produced and by doing so decreasing the cost per unit (Kinsella, 2002; Sanjian, 1991). Exporting MCW therefore can have economic benefits in the

¹ We lack precise data on the percentage of global arms exports out of total global economic activity. A rough estimate that can be calculated based on the estimated volume of MCW exports in 2022 (31 billion, Wezemann et al., 2023) and the global gross economic product (100 trillion, World Bank, 2023) amounts approximately to 0,03 %.

way that the goods procured for the domestic military of the producer are expected to be cheaper than they would be without exports. This phenomenon is particularly relevant for European countries given the fragmentation of the European defence industry and market (Kleczka et al., 2020), but the incentive to rely on exports to lower the costs per unit exists for all exporters.

Furthermore, arms exports have a security dimension. First of all, exporting arms can be a security risk. The exported weapon system might potentially be used against the exporter, so caution is imperative when the decision about exporting arms to a specific country is made. This is an important reason why most arms are traded within military alliances (Chou et al., 2023; Willardson & Johnson, 2021).

On the other hand, arms exports can have positive security-related implications. They can serve as a means to sustain domestic industrial capacity to produce military goods (Kleczka et al., 2020). This includes factories, production lines, employees and the technological know-how desperately needed to swiftly ramp up production in a crisis when more supply and ammunition is needed either for the own military or to achieve foreign policy goals like assisting a foreign state at war. When only a small number of units is produced in peace times, these capacities are lost for times of crisis and create a security risk for the producing country. By exporting MCW, the industrial capacity to produce larger quantities of military goods can be maintained and the security risk of not being able to adapt to a rapidly changing security environment can be decreased.

Another security benefit awaits when arms exports go to allied states. This way the alliance's military capabilities and therefore the security of the exporter can be increased (Chou et al., 2023). In a broader sense, Thurner et al. (2018) show how security as a factor has regained importance relative to economic considerations after 2001. It is reasonable to assume that in the context of the full-scale Russian invasion of Ukraine in 2022, this shift towards security motivations will be even further exacerbated.

Other works have focused on ideal-based motivations to export arms. On the one hand, ideological reasons has been suggested to explain arms exports (Akerman & Seim, 2014). That is, arms transfers can be a contribution to the provision of security in states sharing similar values as the exporter. Human rights are an important dimension of a political ideal. Nonetheless, there is mixed evidence on whether human rights records play a role in the decision where to export arms to (Blanton, 2005; Johnson & Willardson, 2018; Platte &

Leuffen, 2016). Democracy seems to be a predictor for arms transfers during the Cold War but not in the time since (Akerman & Seim, 2014; Dufek & Mochtak, 2019).

3.2 Why do states import arms and from which countries do they import?

In the past section we examined the reasons for exporters of MCW to export and what motivations and incentives can play a role in the decision to export arms. Now, since investigating arms transfers includes two sides, some light must be shed on the importer side as well.

Previous research has extensively covered the motivations for states to import arms and on the decision from whom to buy them. During the Cold War, military or security factors had the biggest impact on the patterns of arms transfers (Pearson, 1989). Since then, other factors have been shown to explain some of the patterns, too. Especially in the 1990s, economics gained relevance with the rising number of suppliers a country could then choose from (Turner et al., 2018). That is, the price and quality of a military good is taken into account when deciding from where to import arms (Levine & Smith, 1997; Smith & Tasiran, 2005).

On the other hand, allies are still a factor. Buying from a military ally not only facilitates joint military operations thanks to the interoperability of the MCW but can also have macroeconomic benefits through technology spillovers (Callado-Muñoz et al., 2023; NATO, 2023). Here, the alliance factor brings both security and economic benefits. Similarly, security and ideology can also be connected. Drawing on the democratic peace literature, democracies are less likely to engage in military conflict with each other (Mousseau, 1997; Russett, 1993). Further, democracies tend to feel more threatened by autocracies than by other democracies which, in turn, draws back to the democratic peace argument (Risse-Kappen, 1995). One thing every importing state wants to avoid is being involved in an armed conflict with an important supplier of one's military equipment. It would make the importer vulnerable to a stop in the flow of equipment, spare parts and ammunition and therefore undermine the capacity to fight effectively. This is precisely what happened to Ukraine in the context of the Russian invasion in 2022, where Ukraine had to transition during an ongoing war to western equipment and technological standards. This was because its own military industry was a primary target for the Russian armed forces on the one hand and the biggest producer of Ukraine's soviet standard arms, Russia, naturally did not supply its current opponent on the battlefield with arms and

ammunition (Grand, 2023). All in all, this shows us that security considerations are crucial when importing arms, and they already started regaining importance after 2001 (Turner et al., 2018).

To close the circle to the democratic peace argument, buying from your ideological ally with a similar regime type can also have security benefits, at least for democracies. A democratic state selling MCW to another democracy is less likely to engage in an armed conflict with the fellow democracy and therefore reduces the risk for the importer to be cut off from supplies. Indeed, a relationship between Russian arms exports and the importers' level of democracy seem to exist (Raab, 2024). The more democratic a country, the less likely it is to have imported MCW from the autocracy Russia in the post-Cold War period and also the smaller the share of Russian imports in total arms imports is. Whether this association is only driven by democracies, corresponding to the democratic peace argument, or whether non-democracies are also more likely to buy from non-democracies remains unclear at this point, however.

To sum up, a set of motivations exist for states to import and export arms. The constellation of these motivations in practice determines trade patterns of MCW. What we are still missing is the connection between importing arms and voting behaviour in the UNGA. That is, how does an arms transfer affect the importer's voting behaviour? The proposed mechanism behind that is dependency. However, we lack knowledge both on whether arms exports serve as a tool for vote-buying in the UNGA and whether dependencies can explain such a hypothetical empirical relationship. Therefore, these two aspects represent a research gap this thesis aims to fill. The following section elaborates on the mechanism behind the proposed argument that arms imports affect the importer's voting behaviour.

3.3 Arms imports and the resulting dependencies

I argue that importing arms is a long-term process in its delivery, maintenance and resupply and therefore makes the importer vulnerable to cuts, interruptions or cancellations for a long period.

Unless a state strictly follows a strategy of autarchy, dependencies on one or multiple other actors are inevitable. They can appear in domains such as energy or critical resources like minerals or rare earths (Kim, 2019; Lee & Dacass, 2022). Concretely, scholars have suggested that European dependence in natural gas from Russia has shaped political alignments in favour of Russia reflected by an convergence in voting patterns in the UNGA (Stoelzel Chadwick & Long, 2023).

Arguably, no state is completely independent of any other foreign state for supplies in one or another sector. What is more, in a sector such as advanced arms manufacturing where technological know-how and capital-intensity is crucial, it is difficult for many states to build up and sustain their own technologically competitive arms industry. This is reflected in the fact that relatively few states dominate the global arms market and even the largest exporters still import substantial amounts of material from other countries because they are cheaper or technologically superior to domestic products (SIPRI, 2023; Smith & Tasiran, 2005). The bottom line of this is that it is difficult to avoid any dependencies in the defence sector and importing MCW on a substantial scale can lead to long-term dependencies of the importer on the exporter (Catrina, 2021). In the following, a more detailed examination of the mechanisms present in this sector is provided.

Dependencies in the defence sector can be technological or logistical and, subsequently, might lead to a political dependency expressed by ‘having to’ vote in line with the exporter. The first vulnerability appears between the signature of an arms transfer deal and the delivery of the agreed goods. This typically takes up to several years, since MCW are costly and lengthy to produce, and most arms producers do not have the industrial base to execute production orders instantly (Defence Industry Europe, 2023; Posaner & Kayali, 2024). To be economically viable, arms manufacturers stretch out the production of an order over an extended period so that the workload can be distributed equally over time and production does not stand still after having finished the production of one order (Hegmann, 2023). This is due to the way such orders are placed. Unlike other goods that either see a constant and steady demand by the same consumers (like simple consumer goods) or a fluctuant demand by individuals but steady over a population (cars, real estate etc.), so a relatively steady level of demand over time on a macro-level, MCW are usually ordered in batches. When a country needs tanks for its military, it does not order three tanks each year to replace old tanks, but it typically orders dozens or hundreds of tanks in one order. And as defence expenditures have stagnated in Europe until recently, the average production capacity per month has fallen drastically since the end of the Cold War from 25 units during the Cold War to only four units in the case of the Leopard 2 main battle tank, for example (Defense Express, 2023). For the manufacturer this brings the need to stretch the production of these fluctuating order volumes evenly over a longer period of time, resulting in a vulnerability of the importer over a longer period of time during which the exporting country could delay or cancel the transfer (Johnson, 2020).

The second vulnerability concerns the maintenance and supply of spare parts and ammunition for the imported MCW. Maintenance is typically included in an arms deal and involves specialists from the arms manufacturer (SIPRI, 2023). Amid the long life cycle of MCW of decades, this is a long period during which the supplying country has the opportunity to cause interruptions (Catrina, 2021; Kemp, 1979; Wheelock, 1978). Even if maintenance can be substituted by domestic engineers, ammunition for vehicles, rocket launchers or guns is based on different technological standards. Highly specialized weapon systems can even have manufacturer specific ammunition, while more general systems like tanks or artillery at least tend to have the same standards within an alliance. This can lead to problems in the efforts to replenish what has been worn off or destroyed in an armed conflict. That is what has happened to the Ukrainian military when it could not get enough ammunition for its soviet type artillery and therefore had to switch to western artillery systems like the German PzH 2000 to be able to draw back on the ammunition production capacities in the West and South Korea (Clapp & Przetacznik, 2023; Grand, 2023).

To summarize, importing countries are vulnerable for a relatively long period of time after signing an arms deal as they wait for the delivery of the goods and require resupply and maintenance (Stohl & Grillot, 2009, p. 43). But even beyond that, a dependency can occur. Given the mentioned different technological standards, first, importers have an incentive to buy more from fewer suppliers to avoid having to administer different systems and, second, to keep buying from the same suppliers to facilitate inter-generational compatibility (Saw, 2023). The former, of course, needs to be weighed against the risk of buying only from few suppliers, but there remains an incentive that works against typical de-risking strategies to avoid cluster risks. So, on a general note, arms imports can create technological and logistical dependencies in delivery, resupply, maintenance and the ‘technological ecosystem’ which all incentivises the importer to keep buying from the same producer and limit the number of suppliers especially within one category of weapons (Johnson, 2020).

To understand the mechanisms behind the argument better, a deeper look into the cost analyses of arms imports is helpful. Changing the supplier of arms during the life cycle of a MCW or after, so while procuring the next generation, creates economic and security costs (Johnson, 2020, p. 851). This is because what economists call ‘sunk costs’, money spent in the past which cannot be recovered (Cambridge Dictionary, 2024; García-Alonso, 1999, p. 852). Changing suppliers and therefore ‘ecosystems’ entails additional training of personnel on the new systems

and creating new parallel logistical chains of resupply and maintenance (Harkavy, 2013; Maoz, 2006). Particularly during a conflict or war, switching to different weapon systems barely compatible with the systems already in use is risky and costly (Johnson, 2020, p. 852; Kinsella, 1998). One example for this, again, is the recent case of Ukraine (Grand, 2023).

This all suggests that importing countries choose wisely which supplier state they make themselves dependent on and then, have a strong incentive to maintain friendly ties with the supplying country to not alienate them and risk an interruption. That is, an alignment of the importer's voting behaviour in the UNGA towards the exporter might occur. While some scholars have been sceptical about the actual influence the exporter has over the importers domestic and foreign policies (Stohl & Grillot, 2009, p. 50), a vote alignment might still be more likely to occur than a policy change. As an example, in the scenario of diverging views on an issue between the importer and the exporter, it is less costly for the importer to make concessions in form of adjusting its voting than actually adjusting a policy on that issue against its real preferences. Despite the notion that voting in the UNGA is more than just a detail (Dreher & Jensen, 2013, p. 185), it is arguably still the less consequential choice in comparison to a policy change. One example we could think of is a domestic issue in the importing country like a human rights issue. When the exporter is pressuring the importer to change its policy, the easier way to accommodate the exporter is to start voting more in favour of resolutions promoting human rights signalling to give way to the exporter's demand than to change a policy although the state prefers not to do so. Further, the signalling part of voting is intuitive to register and monitor for the exporter.

In any way, the United States and Russia are using their arms exports as a foreign policy tool in different situations around the world (Stohl & Grillot, 2009, p. 50), if impactful or not. And when we take into account that aid is often used as a pre-emptive tool to induce a change in voting behaviour, arms transfers may well be used in the same way (see section 2.2). Thus, the direction of the effect is expected to be from arms transfers to voting behaviour and not vice versa.

Hence, I argue that through the resulting dependencies, arms exports are used as a tool to buy votes in the UNGA. Since most states are dependent on foreign manufactured arms for their security, they have to choose a supplier they make themselves dependent on. Subsequently, the technological and logistical dependencies of importing arms from a particular supplier country incentivize the importer to align its voting behaviour in the UNGA with the exporter, thus,

fulfilling the expectation of the exporter of using the arms transfer as a tool to buy political support. This argumentation is based on the assumption that exporters are in a more powerful position in the global arms market than importers are allowing them to express demands and conditions.

However, the contrary argument on dependency can be made, too (Spindel, 2023). Some scholars have stated that the global arms market is actually a buyers' market which would, if true, actually reduce the importers' risk of dependence (Johnson, 2020; Kinsella, 2002). This is because in a buyers' market, buyers have more leverage than the sellers because they can choose from several suppliers. One argument these authors put forward is the economic need to export MCW to sustain domestic arms industries and to lower the cost per unit (see section 3.1).

Nevertheless, two arguments cast doubt on this view. First, it should be noted that usually, the arms producer is the bigger, wealthier and more powerful country in each dyad of arms trading countries (Brzoska, 2004, p. 111; SIPRI, 2023). Commonly and in general terms, the more powerful partner in a dyadic relationship between two countries should also have more leverage (Spindel, 2023, p. 397). In the context of the aforementioned technological and logistical dependencies, the exporter should have more leverage over the importer and, therefore, be less dependent on finding buyers than the importer is on securing the resupply. Losing one customer should not be too costly for the exporter in the short term, only in the long term when no substitution can be found it might become costly to lose an important customer. This long-term economic vulnerability for a powerful state must be put into relation to the direct short-term vulnerability in both economic and security terms that the importer faces when its supplier withholds deliveries or resupplies.

Second, the exporter side of the global arms trade is substantially more concentrated on a few major exporters. Between 1992 and 2020, the top ten importers made up 46.5% of the total global arms imports while the top ten exporters represented a striking 89.9% of the globally traded MCW (SIPRI, 2023).² The exporters' higher market shares means that an importer wanting to switch supplier countries has generally fewer options to choose from and specifically in the case of a particular weapon system, since not all exporters export every weapon system. On the other hand, an exporter thinking of withholding its MCW to a single importer should have more potential importers available to make up for the lost revenue.

² The corresponding tables can be found in *Appendix 1* and *figure 5* in the following chapter.

To sum up, comparing both potential directions of dependencies it seems unlikely that the exporter is more dependent on a specific importer than vice versa.

Based on the past sections, I argue that importing arms can lead to a technological and logistic dependency from the importer on the exporting country which, in turn, should result in a political alignment expressed by the voting behaviour in the UNGA. More specifically, the dependency should be stronger for higher shares of imported arms from one exporter as the difficulty to replace a supplier increases with a stronger reliance on this individual supplier. This line of argumentation can be expressed in the following hypothesis.

H₁: The higher the share of arms from an individual exporter in a country's total arms imports, the more likely the importing country will undergo an alignment in its voting behaviour in the UNGA in the period after an arms transfer.

4. Variables, data and case selection

4.1 Dependent variable

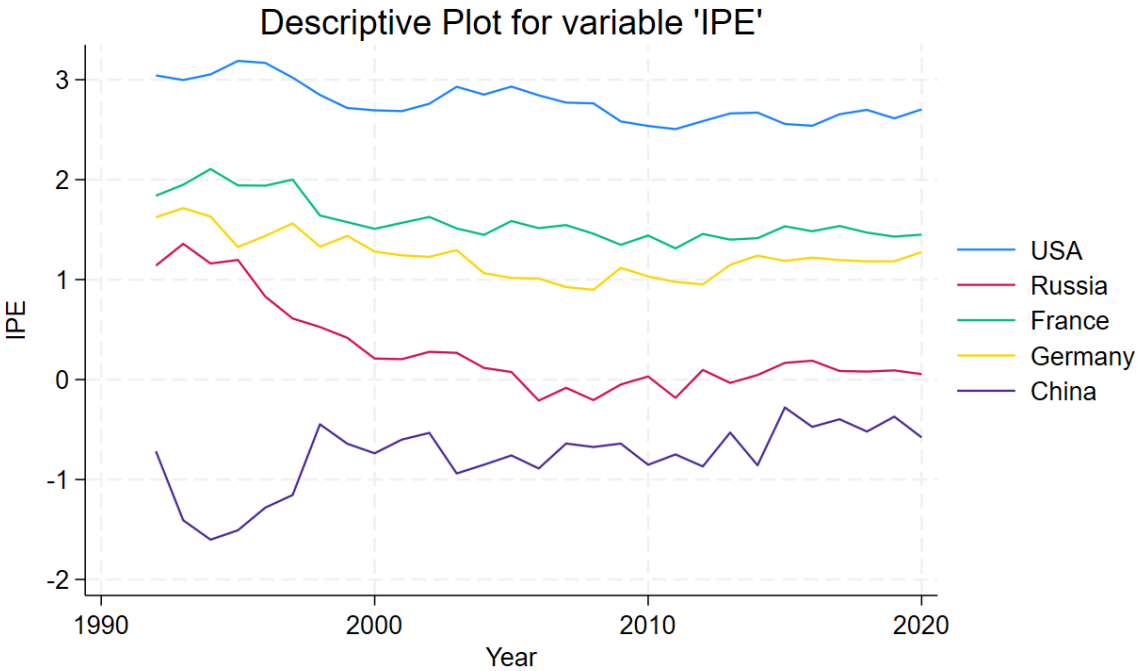
The dependent variable is based on the most established dataset to measure voting behaviour in the UNGA produced by Voeten et al. (2009). It is used to systematically measure the voting behaviour of states in the UNGA by the overwhelming majority of the recently published literature (Dreher & Sturm, 2012; Dreher & Yu, 2020; Haixia, 2023; Hwang et al., 2015; Mandler & Lutmar, 2021; Thompson et al., 2021). The basis of this index is a spatial model of votes in relation to the US-led liberal order, so-called 'Ideal Point Estimates' (IPE) with higher values indicating a higher proximity towards to US-led liberal order (Bailey et al., 2017). This makes a more precise intertemporal comparison of countries' voting possible because the number of resolutions on an issue two countries vote similarly on does not affect the measured voting similarity between the two countries. In the end, we are interested in voting similarity throughout different issues. Just by increasing the number of resolutions voted on one single issue, the actual proximity between two countries does not increase despite a measured increase in correlating voting. To account for that, a spatial model is needed. This is what the IPE model provides (ibid.).

The traditional way to measure voting behaviour are S scores (Bailey et al., 2017). They measure the raw coincidence in voting behaviour between different countries and are therefore

sensitive to the number of resolutions per issue. To account for that, the IPE’s spatial index reflects common ‘interests’ and ‘preferences’ and is more reliable for time series analyses than traditional S scores (Bailey et al., 2017, p. 431; Martínez-Zarzoso & Johannsen, 2019, p. 10). In the case of this thesis, IPEs will be used to measure political support in the UNGA. That is, if the IPEs of two states are closer to each other, this should reflect a closer political alignment.

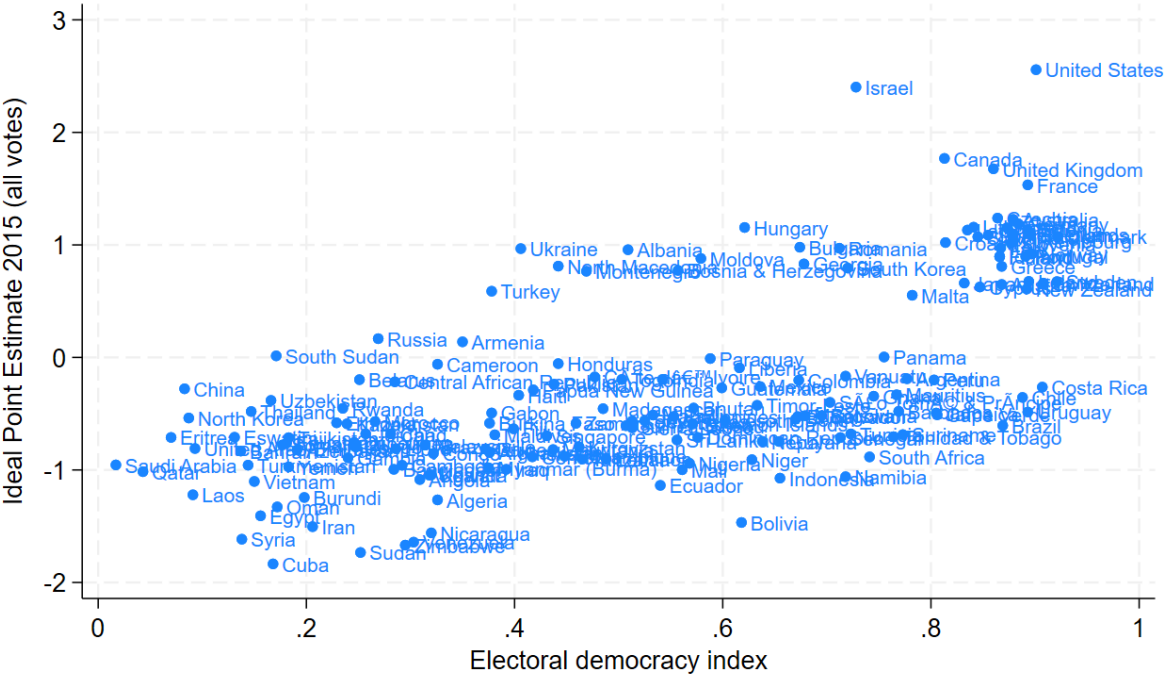
To quantify the political alignment between two states in the UNGA, I construct my own variable of a novel character based on this dataset. This is, I calculate the distance between two countries’ IPEs. Mathematically, this equals the difference between an exporter’s IPE and the importer’s IPE. For example, two states with high IPEs have favourable views of the US-led international order in common while two states with low IPEs share their scepticism towards it. Both pairs of states would show a small distance in their IPEs towards the other state within each pair. Because five arms exporters are examined in the analysis, we have five different variables referring to the IPE distance between any state and each of the five exporters. Since the IPEs are normalized around zero in the dataset, the absolute value of the distance needs to be used since a difference of -1 and 1 describes the same magnitude of political distance. So after the construction of the variable, it does not matter if country A’s IPE is one unit lower or higher than country B’s IPE.

Figure 2: IPEs of selected countries over time (1992-2020)



below zero are European. This means that outside the so-called West, the relationship between voting behaviour and prosperity or democracy is weaker.

Figure 4: Scatterplot of 2015 values for IPE and the Varieties of Democracy index for electoral democracy



4.2 Independent variable

The data on arms transfers is provided by the Stockholm International Peace Research Institute (SIPRI, 2023). It is, like the data source of the dependent variable, the most established database on arms imports and exports, particularly for country-year data and time-series (Platte & Leuffen, 2016, p. 568). SIPRI uses publicly available information on transfers of MCW (excluding small arms and light weapons) and estimates the costs per unit to calculate the financial volume of an arms deal. This means that the declared volume in US\$ is not necessarily the government announced volume of an arms deal since the latter typically includes the value of long-term maintenance and ammunition (Brzoska, 2004, p. 113). Arms deals of a value of less than 500 000 US\$ are denoted as zero and the data is often subject to later revision, when more information is published (ibid., p. 112).

In order for the independent variable to correspond better with the idea behind arms imports dependencies and because the original SIPRI dataset only provides information about the absolute volume of arms imports from one or all suppliers, I construct my own variable based on the SIPRI dataset. We want to measure the reliance on a specific arms exporter, so the volume of arms imports from each of the five examined exporters is used as a share of a country's total arms imports. This gives us, again, five variables corresponding to the reliance on each of the five exporters. This is an attempt to reflect the relative importance of individual arms suppliers for importing countries, since arguably the exposure or dependence on specific exporters does not so much depend on the absolute amount of imported MCW but on its relative importance for the importing state's armed forces. The variable looks as follows. As it measures a share and its maximum is one and its minimum is zero with a continuous scale in between, it essentially reflects percentages. An increase by 0.1 thus refers to an increase in ten percentage points in the share of for example French arms in a country's total arms imports. It is important to note that for most years, the observations are zero since states trade arms only with a limited number of other states and even then, only in some years as arms trade flows are typically not steady but fluctuating.

However, even after doing so one important caveat remains. The variable assumes that a high share of imports coming from one supplier directly translates to a high share of military capabilities that depend on one supplier. Yet, we can imagine a case in which an importer produces most of its MCW domestically but the small volume of it imports comes from one single supplier. The variable would therefore suggest a high dependency on that supplier, although in reality the imported arms do not make up a significant share of the armed forces' equipment. The dependency argument is based on this assumption, that is, when arms imports are crucial for the importer's defence capabilities. Yet, for resource reasons, we have to accept this weakness as there is no good alternative to measure the reliance on specific arms exporters.

One detail worth mentioning because of its relevance to this analysis is the fact that an arms transfer which is part of a military aid package is not denoted differently than a regular purchase (Martínez-Zarzoso & Johannsen, 2019, p. 9). This is valuable for this thesis because arguably an aid package is at least as influential in changing the importer's voting behaviour as a regular purchase would be. Therefore, ignoring transfers on concessive terms would bias the data.

While SIPRI draws on all sorts of publicly available information such as governmental, non-governmental and media documents on official and unofficial arms transfers, it is not possible

to rule out the possibility that arms transfers go unnoticed by the public. In fact, states can often have an incentive to transfer arms secretly. However, in the age of satellite images and open-source intelligence it is unlikely that large arms transfers remain entirely unnoticed. For example, the arms Russia has lately allegedly been importing from Iran and North Korea were detected relatively quickly by satellite images of cargo trains and the examination of the hardware deployed in Ukraine (Davenport, 2023; Feldstein, 2022; Posaner et al., 2023). While smaller shipments are easier to keep secret, their smaller volume will only have a limited effect on the accuracy of the data.

The data used in the analysis covers the period from 1992 to 2020. Choosing 1992 as the starting point allows for a clear cut between the transition of the Soviet Union to Russia, as it marks the first year after the USSR's dissolution. 2020 is the latest year for which data by the World Bank for GDP per capita in constant prices is available and will therefore serve as the upper end of the period.

4.3 Case selection

As it is beyond the scope of this thesis to include all exporters of any size, five major exporters are examined in the analysis: the US, Russia, France, Germany and China. Two reasons motivate this particular selection. On the one hand, including the sixth largest exporter, China, and excluding the fifth largest, UK, is a step to increase the diversity of the sample. Including a non-European and non-NATO member promises more additional value than including the UK alongside France and Germany. On the other hand, between China and Italy as the next country in the ranking, a clear cut is visible. Between 1992 and 2020, China accounted for almost twice the arms exports of Italy which gives it significantly more relevance in the global arms trade. As we see in *figure 5* and *Appendix 1*, the five selected countries account for more than three quarters of the total volume of internationally traded MCW in the period of interest. On the one hand, the high coverage of the international arms trade promises good external validity. On the other hand, it is possible that large scale exporters are not identical to small scale exporters in the way they can use their arms as a foreign policy tool. This should be kept in mind when interpreting the results.

On the importer side, most countries are included in the analysis. The sample size ranges from 193 in the bivariate model (all current UN members) to 162 in the full model. Therefore, we can assume good external validity in this regard.

Figure 5: Top Exporters of MCW (1992-2020)

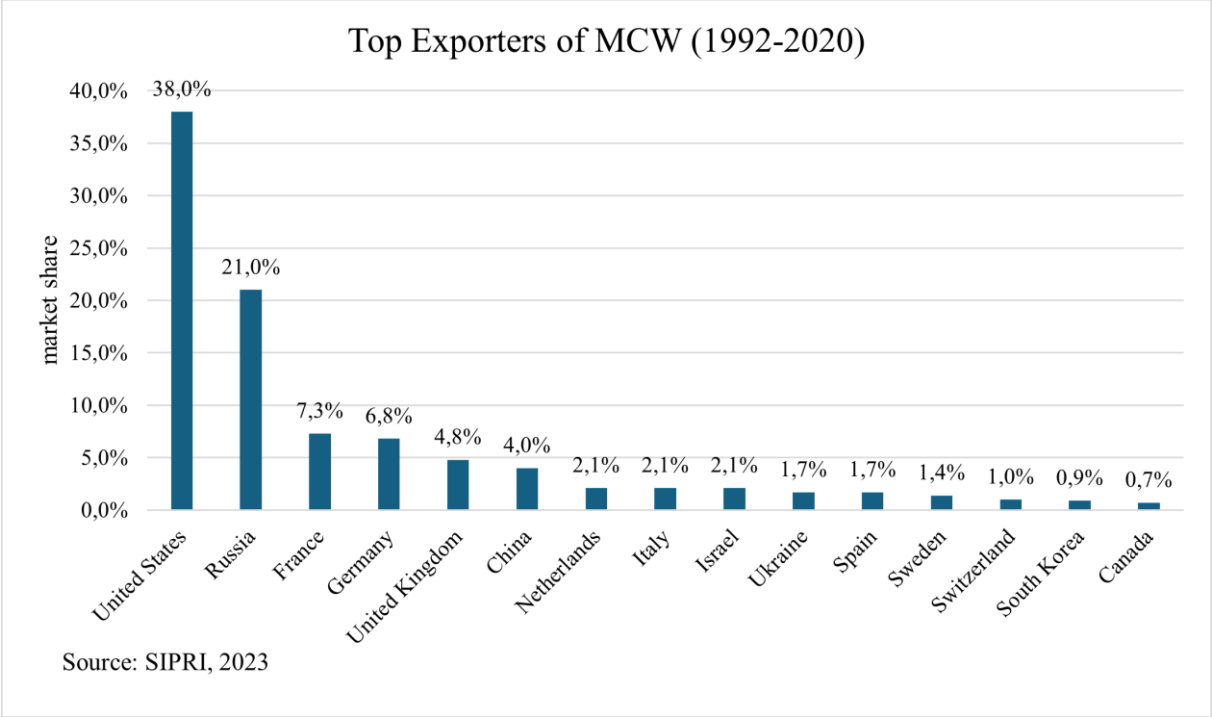


Figure 6: Scatterplot of average vales for IPE and arms imports (1992-2020)

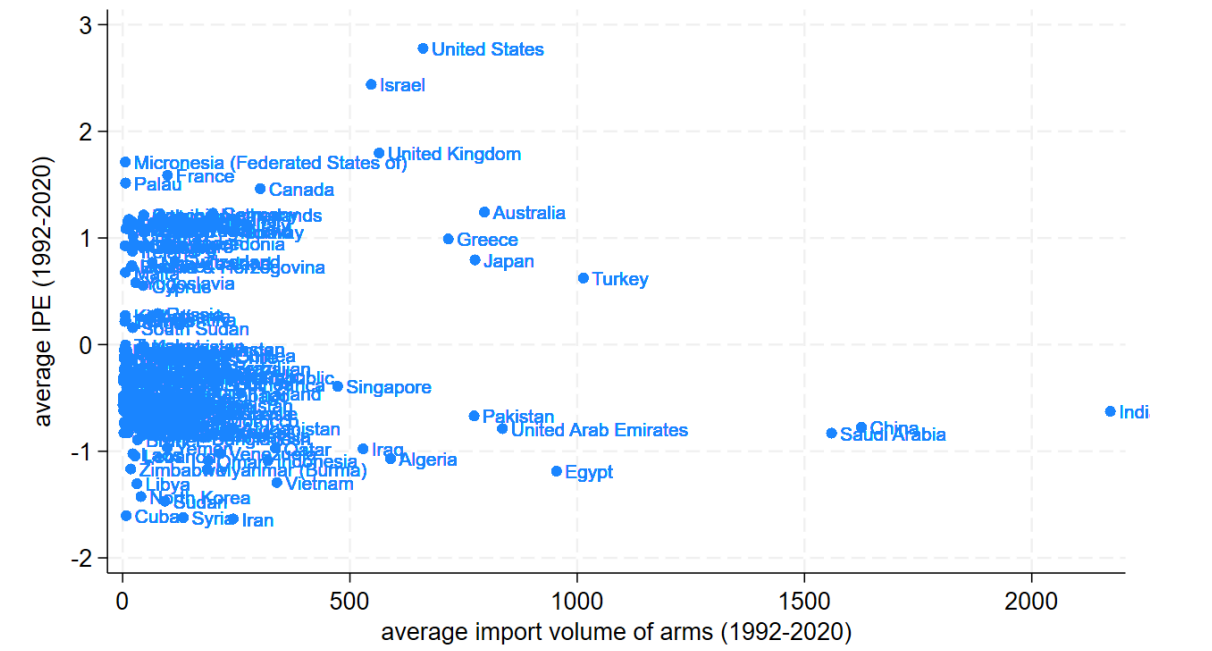


Figure 6 gives us an impression of the relationship between arms imports and the countries' voting behaviour in the UNGA. A number of approximately 13 countries dominate global arms imports while the majority of states import only small volumes of arms. No clear relationship with voting behaviour is visible.

4.4 Control variables

A number of control variables are included in the analysis. The first one covers armed conflicts. Countries at war or involved in an armed conflict might have a greater need to import arms and could also be more willing to change their voting behaviour in favour of the supplier than a country not in urgent need for arms supplies. The data used to control for conflict involvement comes from the Uppsala Conflict Data Program (UCDP) and is based on the reported battle deaths in a year (Davies et al., 2023). It covers the complete period of interest from 1992 to 2020. The UCDP only provides raw data on conflicts, so the country-based variable was constructed and calculated by the author. This means that if a country was the main party in an armed conflict defined as a conflict with more than 25 battle deaths or more than 1000 troops deployed, the total battle deaths are reported for this country in the specific year. If the government was involved in various armed conflicts, the respective number of battle deaths are added up. This measure is designed to capture the conflict's intensity since the attrition of human life can function as a proxy for the attrition of material since we do not have data on the actual attrition of MCW per country and year. If a country is not a main party in an armed conflict in a given year, it is denoted as 0. It is important to point out that this measurement implies that some foreign military operations like the counterinsurgency mission in Afghanistan are not associated with the individual foreign states involved because the government of Afghanistan is listed as the main party in the conflict with the Taliban. This is an unfortunate flaw, but the lesser evil in comparison to coding all coalition forces as main parties of the conflict. This is because of two reasons. First, returning to the example of the conflict between the Taliban and the Afghan government, the overwhelming majority of casualties was not borne by the international coalition forces but on the side of the Afghan army and civilian population (Bateman, 2022). To assign those battle deaths equally to all foreign countries participating in the armed conflict would cause another, worse bias. Second, depending on the year, also countries not directly involved in the fighting such as Mongolia are listed as secondary supporters of the Afghan government. Therefore, coding all secondary parties as main parties

and lifting them onto the same level as the Aghan army would be inappropriate and cause more distortion than inaccurately ignoring some relevant secondary parties like the US.

The UCDP dataset distinguishes itself from other conflict databases in the way that it includes both internal and external conflicts. This is of particular help for this thesis since arms are needed and worn out in both types of conflicts and we want to cover a country's overall involvement in a conflict.

Next, I control for the importers' level of democracy. Being an autocracy is an important explanatory factor for the voting behaviour in the UNGA, so not including democracy as a control variable would confound the effect of arms imports. It relies on the electoral democracy index (v2x_polyarchy) of the Varieties of Democracy dataset (Coppedge et al., 2023). The values are measured on a continuous scale and range from 0 to 1. Higher values correspond to higher levels of democracy and the variable covers the entire period of interest.

To account for levels of prosperity, importer GDP per capita in constant US\$ is used as a control variable. The data comes from the World Bank's World Development Indicators and covers the period up until 2020 (World Bank, 2024a). A standard procedure of using GDP per capita as a variable in regressions is to transform the variable into a logarithmic form. This is also done in this analysis to account for the strongly skewed values of the variable.

Formal alliances between states might affect the way in which states vote in the UNGA. To isolate the possible effect of arms imports on voting behaviour, we must control for the overarching formal alliances in place between countries. In the end, we want to identify the effect of the concrete arms transfer regardless of whether the two involved countries have signed a formal alliance treaty reflecting at least partially overlapping interests and a political proximity.

On the other hand, a substantial share of arms is exported within alliances (Wezemann et al., 2023). This represents a potential source for multicollinearity between the independent variable of arms exports and the control variable on alliances. This issue will be addressed in the empirical section.

The alliance variable used in the analysis is constructed by this thesis' author. It is a binary variable and combines three different variables from the original dataset. The data source is the Correlates of War (CoW) project and the respective paper in which the dataset is introduced (Gibler, 2009). The variable takes the value one in the presence of either a defence pact, a

neutrality or non-aggression treaty, or an entente agreement between the arms importer and the exporter, or multiple of these categories at the same time. This is because it is unclear which of the types of alliance is the most accurate one for our analysis, so one combined variable on alliance for either of the alliance types seems practical. Unfortunately, data on this variable is only available until the year 2012 and to the best knowledge of the author it remains the only dataset on alliances which does not leave any other possibility than using this one.

A second variable used in this thesis is sourced from the Correlates of War project covering bilateral trade (Barbieri & Keshk, 2016). It is likely to assume that states trading a lot with each other are more likely to have similar voting behaviour in the UNGA. Again, the CoW variable seems to be the only data available in dyadic form (trade between country A and B), which is needed for this analysis, so we must accept the limited time period until 2014 as an unavoidable weakness. In the original data, absolute numbers of imports and exports between two countries are reported. To make them more useful for our analysis, similarly to the other variables presented so far, I construct a new variable. For that, the total trade volume between each country and each of the five arms exporters is divided by the importer's GDP. That is, the variable bilateral trade describes the bilateral trade with an individual arms exporter as a share of the importer's GDP in percent. By doing that, the variable reflects more accurately the relevance of a trading partner to an arms importing country. Data on GDP (to calculate the variable trade divided by GDP) is retrieved from the World Bank database on World Development Indicators (World Bank, 2023).

Lastly, it seems interesting to check for the relationship between the ideological constitution of a government and its voting record in the UNGA. Herre (2023) provides a comprehensive dataset on the ideology of each country's head of government in a given year, using three categories for left-wing, centrist and right-wing. I use two dummies for a centrist and right-wing government. The dummy for left-wing is excluded automatically by the statistics software.

However, scepticism towards the variable's validity is appropriate. First, the distinction between ideologies by using only three types is very rough and the left/right scheme of political ideologies differs vastly among countries and continents. Second, the head of government is often not ideologically identical with the government as a whole or the foreign minister, particularly in coalition governments in parliamentary democracies. Since in theory government ideology is still a variable worth including, its contribution to the model will be

examined separately and thereafter decided on whether to use it throughout different models or not.

5. Empirical strategy

The analysis' empirical setup includes countries as the unit of analysis and uses data in the country-year format. In order to answer the research question of this thesis, different linear regression models will be used. By that, the relationship between the main explanatory variable of arms transfers from a specific exporter and the dependent variable of importer voting behaviour in the UNGA will be analysed. Since the majority of my variables are exporter specific – for example voting alignment with the US must be matched with the independent variable arms imports from US and trade with the US – a total of five models for each type of specification are needed to compare the cases of the five exporters. All regression models include fixed effects in order to control for variation between countries. Aiming at analysing voting behaviour, possible confounders like geography or colonial history come to mind but are taken care of by using fixed effects.

As argued, there is also a temporal dimension involved in the theoretical argument. A potential shift in voting behaviour should occur after the transfer of MCW. To test different time periods between the arms transfer and the voting, different lag structures are used. By doing that, a causal link cannot be established with confidence, but it makes the results more robust in terms of the actual direction of the relationship. Due to the theoretical model, there is no reason to assume that the other variables have lagged effects as well. That is why they are included in a non-lagged form. For example, the levels of democracy or GDP per capita of the importers should be related to the voting behaviour right away and in the same UN session and not one or two years later. Two years later, the values of that year seem to be the most relevant.

First, corresponding to the five exporters five bivariate models with a lag in the independent variable by one year are presented. Second, we expand the bivariate models by including the controls. Third, different lag structures will be applied to each exporter model. This allows us to compare the relationship between arms transfers and IPE distance to the exporter based on different lags. Fourth, a reduced model excluding the control variables on alliance and trade is used to increase the sample size and check for potential biases due to the limited data

availability in these two variables. Last but not least, we address the issue of the skewedness of the arms import's values due to the fact that most countries do not import arms from a specific supplier in a specific year. Therefore, we only look at those cases in which at least some MCW were imported from each supplier. This means that a country will only be included in the regression on voting alignment with the US for those years in which it imported some arms from the US. Analogously, the same logic applies to all five exporter models.

6. Results

6.1 Bivariate models

The bivariate models reveal negative coefficients, that is, in the expected direction for four of the five exporters, with the exception of Germany (*table 1*). This means that the higher the reliance on arms imports from one supplying country is, the smaller the distance in voting behaviour or the more similar the exporter and importer vote in the UNGA. However, only the coefficients for Russian arms transfers are significant. As expected for bivariate models, the models' explanatory power expressed by the R^2 is very low. In total, all 193 current members of the United Nations and more than 5100 observations are included in the bivariate models.

Table 1: Bivariate models

	(1) IPE distance to Russia b/se	(2) IPE distance to US b/se	(3) IPE distance to France b/se	(4) IPE distance to Germany b/se	(5) IPE distance to China b/se
Arms imports from Russia (t-1)	-0.105* (0.05)				
Arms imports from US (t-1)		-0.034 (0.03)			
Arms imports from France (t-1)			-0.039 (0.04)		
Arms imports from Germany (t-1)				0.018 (0.04)	
Arms imports from China (t-1)					-0.047 (0.04)
Constant	0.858*** (0.01)	2.849*** (0.00)	1.688*** (0.00)	1.358*** (0.00)	0.882*** (0.00)
R^2	0.002	0.001	0.000	0.000	0.000
Number of observations	5174	5174	5174	5174	5174
Number of countries	193	193	193	193	193
Time period covered	1992-2020	1992-2020	1992-2020	1992-2020	1992-2020

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

6.2 Full models

After including several control variables the models gain explanatory power, but the R^2 remains on fairly low levels (*table 2*). A total of 162 countries remain in the analysis.

Interestingly, the only model with a significant coefficient for arms imports (Russia) has substantially lower explanatory power than three of the four other models (France, Germany and China). The latter show an R^2 between 0.14 and 0.2 while the models for the US and Russia only explain approximately 9% of the variation.

Russia's arms transfers appear to be the only ones significantly correlated with the importer's voting behaviour. The relationship is stable above the confidence level of 99%. It even increases in effect size in comparison to the bivariate model from -0.105 to -0.14. Since the variable arms imports is measured on a continuous scale from 0 to 1, a one-unit increase refers to a rather unrealistic jump from 0% to 100% of imports from one supplier in total arms imports. A one-unit increase in the share of arms imports from Russia in total arms imports in a given year is associated with a 0.14 unit decrease in the voting distance between the importer and Russia in the following year. When we use the standard deviation as a measure for a more realistic scale of change in the independent and dependent variable, an increase in X by one standard deviation of 0.23 (see *Appendix 1*) predicts a decrease in voting distance by 0.03 or 5.8% of a standard deviation in Y. We can also compare this coefficient with the distance in voting between Germany and France, for example. In the year 2015, their distance was 0.35. If the distance between two closely allied countries is already ten times larger than the change predicted by the model (-0.03) for an increase in arms imports by one standard deviation, we can see that the effect size is very small, in fact.

Taking a look at the control variables, we can see a significant negative relationship between the importers' level of democracy throughout the models for Russia, the US, France and Germany. This means that more democratic buyers are closer to these countries in their voting behaviour. Further, the higher GDP per capita in an importing country, the more likely it is to vote more similarly with all five exporting countries.

In the case of Russia, high trade volumes with Russia and being formally allied with Russia predict more voting alignment with Russia, as well. Similarly, voting proximity to China shows significant correlations with alliance and trade volume with China.

Table 2: Full models

	(1)	(2)	(3)	(4)	(5)
	IPE distance to Russia b/se	IPE distance to US b/se	IPE distance to France b/se	IPE distance to Germany b/se	IPE distance to China b/se
Arms imports from Russia (t-1)	-0.140** (0.05)				
Trade with Russia (as % of GDP)	-1.116*** (0.34)				
Formal alliance with Russia	-0.638* (0.29)				
Arms imports from US (t-1)		-0.003 (0.03)			
Trade with US (as % of GDP)		0.017 (0.17)			
Formal alliance with US		0.047 (0.03)			
Arms imports from France (t-1)			-0.008 (0.04)		
Trade with France (as % of GDP)			0.348 (0.56)		
Formal alliance with France			0.018 (0.05)		
Arms imports from Germany (t-1)				0.011 (0.03)	
Trade with Germany (as % of GDP)				0.444 (0.35)	
Formal alliance with Germany				0.060 (0.05)	
Arms imports from China (t-1)					-0.022 (0.07)
Trade with China (as % of GDP)					-0.557 (0.34)
Formal alliance with China					-0.526* (0.24)
Democracy	-1.105*** (0.32)	-0.895*** (0.18)	-1.012*** (0.19)	-1.027*** (0.20)	0.022 (0.17)
Battle deaths	0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
GDP per capita (log)	-0.365*** (0.11)	-0.207*** (0.06)	-0.321*** (0.07)	-0.387*** (0.07)	-0.699*** (0.09)
Constant	4.608*** (0.90)	5.078*** (0.49)	4.899*** (0.53)	5.071*** (0.56)	6.775*** (0.71)
R ²	0.093	0.088	0.140	0.165	0.196
Number of observations	2954	3044	3042	3041	3042
Number of countries	162	162	162	162	162
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

None of the dyadic control variables (trade & alliance) explain voting proximity to Germany, France and the US, only democracy levels and GDP per capita are significantly associated with it.

6.3 Testing different lag structures

Next, different lag structures are tested for each of the five countries (*Appendix 4.1-4.5*).

Lagging the independent variable by t_1 , t_0 , t_{-1} , t_{-2} and t_{-5} years gives us an impression of how robust the results identified in the full models are. While t_0 stands for no lag, t_{-1} , t_{-2} and t_{-5} refer to a lag of the independent variable by one, two and five years. That is, a regression of voting behaviour on the t_{-1} arms imports variable relates the voting in a given year to the arms imports in the previous year. On the contrary, t_1 refers to the arms imports in the year after the observed voting behaviour.

We get a significant coefficient for Russian arms transfers for all lags except for the t_1 -lag (*Appendix 4.1*). This means that arms transfers correlate with future voting behaviour but not with past voting behaviour. Further, the effect sizes and R^2 change minimally throughout the different lag structures. The non-lagged model has the largest effect size which is decreasing constantly the larger the lag. The longer ago an arms transfer happened, the weaker its relationship with voting behaviour.

None of the different lag structures in arms transfers from the US, France, Germany and China bring significant results. R^2 remains largely on the same level for the t_1 and non-lagged models but decrease somewhat in the t_{-2} and particularly in the t_{-5} lagged models.

6.4 Reduced models

Two of our controls have substantial limitations in data availability as they only reach until 2012 for alliances and 2014 for bilateral trade. Therefore, I re-run the models excluding the two variables which increases the number of observations in comparison to the full model by 1400 or roughly 50% and the number of countries by five (*Appendix 5.1*).³ Indeed, the only country for which arms transfers are significant, Russia, now also drops below the critical level of 0.95.

³ The added countries are Timor-Leste, Cape Verde, South Sudan, Djibouti and Somalia.

At this point it is unclear whether the two dropped variables or the increased sample size by including more countries and the years after 2012 are responsible for this change. Therefore, the reduced models are run again on a constant sample size from the full models (*Appendix 5.2*). Here, the variable arms imports is significant just like in the full model but unlike in the reduced model with more observations. This suggests that the observed drop below the threshold of significance in the reduced model in *Appendix 5.1* can in fact be attributed to the larger sample size in both years and number of countries. Another argument for taking this qualification of the full models' results serious is the fact that the reduced model (*Appendix 5.1*) barely loses explanatory power compared with the full model, supporting the notion that losing the variables alliance and trade is not a fundamental flaw.

At this point, we might want to explore which of the two is responsible for the difference between the full model on Russia and the reduced model: The increased number of countries in the sample or the extended time span. For that, we need to keep the full model's sample of countries constant while including the years between 2013 and 2020. The results can be seen in *Appendix 5.3*. The coefficient for Russian arms imports remains insignificant despite keeping the countries constant. This allows for the conclusion that the observed difference in significance between the full model and the reduced model is in fact due to the extended time period. When including the years after 2012 in the analysis, Russian arms imports cannot predict importers' voting behaviour towards Russia in the years after.

6.5 Testing a threshold in the independent variable

Finally, for further robustness it seems reasonable to test the hypothesized relationship between arms imports and voting behaviour only for those countries importing at least some arms. This excludes most observations but accounts better for the skewed nature of the arms transfer variable and, thus, might address the theoretical dependency argument more adequately. Potentially, this will provide new support for the hypothesis.

Appendices 6.1 and *6.2* show the results. Again, the variable on Russian arms transfers is significant in the full model, but insignificant when we drop the variables on alliance and trade to extend the sample size to the years after 2012. As expected, since we exclude all country-year observations with zero arms imports, the sample sizes of all five models drop drastically from around 3000 in the full model without a threshold (*table 2*) to values between 280 for

China and 994 for the US in the full model with a threshold at 0 (*Appendix 6.1*). In the reduced models, the sample size decreases from 4402 (*Appendix 5.1*) to values between 476 for China and 1482 for the US (*Appendix 6.2*). For the US as the largest arms exporter there are more observations above zero.

6.6 Control variables

After extensively addressing the main independent variable and its relationship with the dependent variable, we take a brief look to the coefficients of some control variables.

In the full models, being formally allied only predicts voting behaviour in the cases of Russia and China. One interpretation of the coefficients is that NATO is a special case of alliance. It may be the case that NATO is primarily a defence alliance and less a political or ideological alliance and is therefore not reflected in a political variable like UNGA voting. What is more, it might be too big to give each of its member the treatment of a central ally in the way the two countries have a special relationship reflected in their mutual voting behaviour. It is hardly imaginable how a state adjusts its voting behaviour to each member state to reflect the alliance status in an alliance with more than 30 members. On the other hand, in the cases of Russia's and China's alliances, they are likely to be more political and ideological, and a lot more carefully selected and therefore more crucial in each of them. This could explain why alliance is significant in the models for Russia and China, but insignificant in the models for the US, France and Germany.

Addressing the finding that GDP per capita is consistently significant for all five countries in the full models, we might find one reason in the cases of African countries. African countries are on average, based on the IPE model of Voeten et al. (2009), the most distant to the US-led liberal order and therefore the most distant to the US, France and Germany (*figure 3*). Even Russia and China are more in the middle of the spectrum and therefore on average closer to the US-led liberal order in their voting behaviour than most African states. Thus, with Africa as the poorest continent, it comes as no surprise that GDP per capita is significantly related to voting distance with five exporters that have all higher IPEs than most African countries.

The full models also predict smaller voting distances for more democratic countries to all five states except China. While it is certainly not very surprising that democratic states vote similar

to the US, France and Germany, the model on Russia also predicts a relationship between a country's level of democracy and its voting similarity with Russia, an autocracy. The reasons behind this could be related to the argument on GDP per capita. Since GDP per capita is correlated to regime type (*Appendix 7*), this could be just another reflection of the argument put forward in the previous paragraph.

Before running the analysis, I was sceptical about the validity and usefulness of the variable on government ideology. To check whether including it improves the model in any form, I separately ran the full models including government ideology. The results confirm the suspicion: the explanatory power of most models drop even further, and the sample size decreases by roughly 200 (*Appendix 3*). Therefore, government ideology was not taken into consideration in any of the other specifications mentioned in this chapter.

6.7 Regression diagnostics

The basis for the diagnostics are the full models since they include the highest number of variables and are the only case with any significant coefficient for the independent variable. The regression models are exposed to different statistical diagnostics tests. No critical values are detected for multicollinearity, but regime type and GDP per capita show higher intercorrelations than other variables (*Appendices 8.1-8.5*).

Looking at residuals, the models for the US, Russia and Germany have fairly normally distributed residuals while France's case is somewhat less normal (*Appendices 9.1-9.4*). The China model is visibly skewed to the right (*Appendix 9.5*). However, this does not have a relevant impact on our hypothesis since the standard full model already does not provide evidence for the hypothesis.

Next, we identify influential outliers by excluding all data points above the commonly used threshold of one in cook's variable. This reduces the n in the five models marginally and all coefficients and R^2 remain substantially equal to the full models (*Appendix 10*). That is, the results are not disproportionately influenced by a small number of extreme observations.

7. Discussion

All in all, the analysis provides no consistent support for our hypothesis. Only Russian arms transfers seem to be related to an alignment in voting behaviour in the UNGA in the years from 1992 to 2012, but not in the entire period of investigation until 2020. Arms transfers from the US, France, Germany and China are not significantly related to the voting behaviour of the importer. Therefore, the hypothesis must be rejected on the basis of the overall picture of the analysis. Increasing the share of arms from an individual exporter in a country's total arms imports do not make an alignment with the exporter more likely.

The most curious result is certainly that Russian arms exports have a significant relationship with the future importer's voting behaviour for the period between 1992 and 2012 but not when more recent years are added to the sample. One possible explanation might be found in the shifting geopolitical climate since the 2010s including Russia's annexation of Crimea in 2014 (Haass, 2022; Rynning, 2015). All attempts to explain this phenomenon more nuancedly are inevitably speculation, but the more recent years might have seen Russia in a more isolated position on the global arms market resulting in a weakened position opposite potential importers. Consequently, Russia might be less able to attach explicit or implicit conditions to its arms exports such as a voting alignment. Cautious support for the hypothesis of Russia's isolation also in the global arms trade is the overall pronounced decline in Russian arms exports after their peak in 2011 (SIPRI, 2023). The question whether there is an inherent link between the two trends could be addressed by future research, especially qualitative research analysing public statements and documents by Russian authorities and officials. Additionally, the reasons behind the observed decline in Russian arms exports are worth a closer look: Does it reflect a policy change within the Russian government or is it rather the result of a decreasing international demand for Russian weapons? The answer to this question is also related to the possible explanation of this thesis' finding regarding the time period after 2012.

At the same time, we should be careful not to overinterpret this divergence between the time periods for two reasons. First, the p-value of the coefficient in the reduced model is still below 0.1 and might well drop below the critical value of 0.05 with different specifications or measurements (*Appendix 7*). Second, the overall explanatory power of all models is rather low. Thus, it is likely that factors not accounted for in the models have a significant impact on voting behaviour and its relationship with arms imports.

Although the results for Russian arms transfers are not significant in the entire period of investigation, it is remarkable that in the Russian case a significant correlation exists in some models whereas no relationship could be observed for the arms transfers by any of the other selected exporters in any of the models. One explanation might be the fact that while the Western states are in support of the US-led international order which has been in place for most if not the entire period of investigation, Russia is in the role of the antagonist. In this situation, Russia might be keener to buy political support in the UNGA as it cannot count on being supported simply due to being the global hegemon in contrast to the US for example.

Another explanation could lie in other factors not accounted for in the analysis. Some research has shown that foreign aid (excluding military aid) can be an effective tool to buy votes in the UNGA and Russia provides substantially less aid than the US, France or Germany (OECD, 2024; World Bank, 2024b). By that, arms transfers might be more relevant for voting distance towards Russia than to Western states for which civilian aid has more importance. China's infrastructure aid and other aid is substantial, although hard to compare qualitatively with aid as measured by the OECD (Dreher, 2022). Additionally, with China being the smallest of the five selected exporters, it is possible that exports of MCW are simply too small to be used effectively as a strategic tool of foreign policy on the global stage.

The finding that the effect size decreases for stronger lags in the Russia models deserves some thoughts, as well. While it is certainly not surprising that an effect loses strength the more distant in time it is to the treatment, it might have some consequences for the theoretical argument proposed in this work. I argued that dependencies are the reason for an alignment in voting behaviour. On the one hand, the different lags all give significant coefficients, providing support for the theoretical argument. On the other hand, the fact that the correlation is the strongest in the model without a lag and then decreases the stronger the lag is somewhat contradictory, as the dependency is probably not the strongest in the same year as the arms transfer happens but rather in the years after. It might be possible that other mechanisms beyond dependencies are present that could explain the link between arms imports and future voting behaviour. Or, alternatively, it might be the case that dependencies work more nuancedly than assumed with some micro-mechanisms within the framework of dependencies. Either way, as far as this analysis is concerned, this discussion is limited to the period until 2012 since the significant relationship for Russian arms transfers only exists for that period.

Further, the issue of reversed causality should be addressed. While throughout different lags in the models including the full set of controls, voting alignment does seem to follow arms imports (*Appendix 4.1*, model 3-5), using a reversed lag (t_1) makes the arms imports variable drop below the threshold of 95%. This means that arms imports are not significantly correlated with voting behaviour in the previous year. This is a hint that arms imports do not follow voting alignment and the observed relationship is, if at all, in the hypothesized direction. This makes sense in theory, as well. After voting similar to the exporter, there is no automatism that gives the country arms supplies from that exporter. On the contrary, the potential recipient still has to make an intentional decision to procure these arms. And choosing one's supplier is based on a number of factors independent to voting in the UNGA as I mentioned in chapter 3. States can intentionally have close ties in different fields with different powerful states; close political ties as in UN votes with country A, trade with country B and military cooperation with country C. The cases of Singapore, Vietnam or Kazakhstan are examples for this phenomenon (Caj, 2013; Rangsimaporn, 2023; Wu & Velasco, 2024).

On another note, the results have some policy implications as well. The fact that the arms exports of four out of five examined exporting countries were insignificant throughout all models puts in doubt the effectiveness of arms exports as a strategic tool to buy votes. Potentially, this can also be attributed to a decreasing intention to do so by policymakers. Here again, qualitative research might help understanding if the non-existent relationship for many exporters can be explained by the lack of intention or if intention is still there, but this policy strategy is simply ineffective.

7.1 Limitations

Further, in this analysis all votes casted in a UN session are the basis for the calculated IPEs. This is for practical reasons and due to the fact that none of the categories of votes as used by Bailey et al. (2017) intuitively corresponds to the issue this thesis covers. Yet, as is shown in that work, by filtering the votes by a defined issue the measure of states' voting behaviour can change, which could be subject of future research on the topic.

Four out of the five examined exporters do not show any correlation between their arms exports and the importers voting behaviour. While this does not support the original hypothesis at all, it neither must be taken as evidence against the use of arms exports by states as a vote-buying

tool. The analysis only tests whether arms exports are effective in the way that they lead to a significant change in voting behaviour. It does not test whether an intention by the exporter to use them as a vote-buying tool is present. Here qualitative research could go into more depth by analysing policy documents in exporter states.

On the other hand, even when arms imports are significantly associated with future voting distance between two states, we cannot say with certainty which of the two states in a dyad is responsible for the convergence. The theoretical argument put forward by this thesis' author suggests it is likely the importer because it typically is smaller, less powerful, and more dependent on the exporter than vice versa. It would need a new theoretical argument to explain why an exporter aligns its voting behaviour in the UNGA with an importer in the years after an arms transfer. But this is just an assumption that the convergence can be attributed to the importer we can neither confirm nor disprove at this stage.

Furthermore, it is important to note that none of the models of any kind has strong explanatory power as expressed by the R^2 . It ranges from 0.088 to 0.196 in the full model and 0.103 to 0.279 in the model with a threshold in the arms transfers, that is, when we only look at those cases in which at least some MCW have been transferred, excluding all zeros. This suggests that voting behaviour and proximity to another state's voting behaviour is ultimately dependent on a couple of factors not included in the analysis. As argued in the previous section, foreign aid is one of the variables that comes to mind here. Unfortunately, the available data on foreign aid is not practical for our research design. To the knowledge of the author, aid data in a dyadic structure is only available for OECD countries which excludes Russia and China. Since examining the relative voting distance to an individual exporting country requires data on aid between each of the exporters with each of the 162 countries which are included in the analysis (or at least a majority of them), including suitable data on aid is not possible without changing the nature of the research design. Here, the choice was made to also analyse Russia's and China's arms exports at the cost of not accounting for aid in the cases of the US, France and Germany. In future research, a different empirical approach or the publishing of a new dataset including Russia and China could contribute to a more comprehensive understanding.

In general, it is possible that foreign aid has more complex interactions with one or several of the variables included in the models. In this respect, the publication of a suitable dataset has the potential to enhance our understanding of the relationship between voting behaviour and arms transfers substantially. Furthermore, the causal relationship between arms transfers and voting

in the UNGA might be too complex to be revealed by a linear regression analysis, so applying different methodologies and research designs can be a promising path for future research, too.

8. Conclusion

Scholars have identified a broad set of factors which influence how countries vote in the UNGA. Among them are domestic factors such as regime type or ideology and external factors like the reception of foreign aid. This thesis aims at making a contribution by investigating the relationship between voting in the UNGA and arms imports. I hypothesize that after receiving an arms transfer, the importing country will vote more in line with the supplying country in order to signal its friendliness. The reason for that might be found in the logistical and technological dependencies on the exporter resulting from importing advanced weapon systems. This is because of two different aspects. First, arms deliveries usually stretch over several years making the recipient vulnerable for interruptions for a longer period after signing an arms deal. Second, even after the delivery is completed, maintenance, spare parts and ammunition often require some goodwill of the exporter for an even longer period up to some decades. To avoid discord with the exporter, voting similarly to the exporter in the UNGA is a relatively cheap way to signal political support and also easy to monitor and register by the exporter. Based on previous literature on vote-buying through foreign aid, it is assumed that the exporters are aware of this dependency dynamic and, thus, proactively use their arms exports as a tool to buy political support in the UNGA. It must be kept in mind that exporters are typically the bigger and more powerful countries, so a convergence in voting is likely to be attributed to a change in voting by the smaller and importing country.

Empirically, I examined five major arms exporters (Russia, US, France, Germany & China) and whether their arms exports are associated with a subsequent alignment of the importers towards them. I use cross-sectional time-series data over the period between 1992 and 2020 and fixed effects combined with lags in the independent variable.

The empirical analysis only provides very limited support for the hypothesis. The arms exports of four out of five examined arms exporting countries do not show any relationship with the importers' voting behaviour. Different specifications including control variables, different lag structures and a threshold in the independent variable do not show significant results for the US, France, Germany and China. Only when we look at the case of Russian arms exports, the

full model including the largest number of controls predicts a small but significant voting alignment between Russia and the importer after an arms delivery. The relationship also holds throughout different lag structures. However, two variables seem to alter the results substantially due to their limited data availability. After excluding the variables on bilateral trade and formal alliance, the coefficient for Russian arms transfers drops below the threshold of 95% confidence level. By running this reduced model with the full model's sample size and then with the full model's time period but keeping the number of countries constant, we can see that the difference in significance can in fact be attributed to the extended time period. It seems that when including the years after 2012, *ceteris paribus*, the relationship between Russian arms exports and voting alignment on the importer side becomes insignificant. One reason explaining this finding might be found in the geopolitical context and the deterioration of Russia's relations to many countries in the West and elsewhere. At the same time, Russian arms exports have dropped substantially since their peak in 2011, which might also be related to Russia's ability to leverage its exports for example to buy votes in the UNGA.

Future research might be able to include a number of other control variables in order to increase the explanatory power of the models. Furthermore, only looking at voting behaviour for a certain category of votes might shed more light on the question of voting alignment. This is because it is possible exporters care more about political support in some votes than in others. Also, after revealing a correlation for Russian arms in the period between 1992 and 2020, it is possible that the relationship further varies throughout different periods. Therefore, against the background of the continuously changing geopolitical context, it would be well worth replicating the analysis in some years to check for potential changes.

9. References

- Akerman, A., & Seim, A. L. (2014). The global arms trade network 1950–2007. *Journal of Comparative Economics*, 42(3), 535-551. <https://doi.org/https://doi.org/10.1016/j.jce.2014.03.001>
- Alesina, A., & Dollar, D. (2000). Who Gives Foreign Aid to Whom and Why? *Journal of economic growth* (Boston, Mass.), 5(1), 33-63. <https://doi.org/10.1023/A:1009874203400>
- Alexander, D., & Rooney, B. (2019). Vote-Buying by the United States in the United Nations. *International Studies Quarterly*, 63(1), 168-176. <https://doi.org/10.1093/isq/sqy059>
- Bailey, M. A., Strezhnev, A., & Voeten, E. (2017). Estimating Dynamic State Preferences from United Nations Voting Data. *The Journal of Conflict Resolution*, 61(2), 430-456. <http://www.jstor.org.ezproxy.ub.gu.se/stable/26363889>
- Barbieri, K., & Keshk, O. M. G. (2016). *Correlates of War Project Trade Data Set (V4.0)*. <https://correlatesofwar.org/>
- Bateman, K. (2022). *In Afghanistan, Was a Loss Better than Peace?* United States Institute of Peace. Retrieved 11.05.2024 from <https://www.usip.org/publications/2022/11/afghanistan-was-loss-better-peace>
- Bickenbach, F., Mbelu, A., & Nunnenkamp, P. (2019). Is foreign aid concentrated increasingly on needy and deserving recipient countries? An analysis of Theil indices, 1995–2015. *World development*, 115, 1-16. <https://doi.org/10.1016/j.worlddev.2018.11.003>
- Blanton, S. L. (2005). Foreign Policy in Transition? Human Rights, Democracy, and U.S. Arms Exports. *International Studies Quarterly*, 49(4), 647-667. <https://doi.org/10.1111/j.1468-2478.2005.00382.x>
- Boockmann, B., & Dreher, A. (2011). Do human rights offenders oppose human rights resolutions in the United Nations? *Public Choice*, 146(3-4), 443-467. <https://doi.org/https://doi.org/10.1007/s11127-010-9598-5>
- Brzoska, M. (2004). The economics of arms imports after the end of the cold war. *Defence and Peace Economics*, 15(2), 111-123. <https://doi.org/10.1080/1024269032000110496>
- Caj, D. (2013). Hedging for Maximum Flexibility: Singapore's Pragmatic Approach to Security Relations with the US and China. *Journal of the Singapore Armed Forces*, 39(2). [https://www.mindef.gov.sg/oms/content/dam/imindef_media_library/graphics/pointer/PDF/2013/Vol.39%20No.2/2\)%20V39N2_Hedging%20for%20Maximum%20Flexibility%20Singapore-s%20Pragmatic%20Approach%20to%20Security%20Relations%20with%20the%20US%20and%20China.pdf](https://www.mindef.gov.sg/oms/content/dam/imindef_media_library/graphics/pointer/PDF/2013/Vol.39%20No.2/2)%20V39N2_Hedging%20for%20Maximum%20Flexibility%20Singapore-s%20Pragmatic%20Approach%20to%20Security%20Relations%20with%20the%20US%20and%20China.pdf)
- Callado-Muñoz, F. J., Hromcová, J., & Utrero-González, N. (2023). Can buying weapons from your friends make you better off? Evidence from NATO. *Economic modelling*, 118, 106084. <https://doi.org/10.1016/j.econmod.2022.106084>
- Cambridge Dictionary. (2024). *Meaning of sunk cost in English*. Retrieved 20.01.2024 from <https://dictionary.cambridge.org/dictionary/english/sunk-cost>
- Carter, D. B., & Stone, R. W. (2015). Democracy and Multilateralism: The Case of Vote Buying in the UN General Assembly. *International Organization*, 69(1), 1-33. <http://www.jstor.org.ezproxy.ub.gu.se/stable/43283289>
- Catrina, C. (2021). *Arms Transfers and Dependence* (1 ed.). London, UK: Taylor & Francis. <https://doi.org/10.4324/9781003176091>
- Chou, C. C., Teng, C.-S., & Tung, H. H. (2023). How do alliances trade arms? Political alliance networks and global arms transfers. *PLOS ONE*, 18(3), e0282456. <https://doi.org/10.1371/journal.pone.0282456>

- Clapp, S., & Przetacznik, J. (2023). Question Time: State of Play – Ammunition Plan for Ukraine. *European Parliament Research Service*. [https://www.europarl.europa.eu/thinktank/en/document/EPRS_ATA\(2023\)754602](https://www.europarl.europa.eu/thinktank/en/document/EPRS_ATA(2023)754602)
- Comola, M. (2012). Democracies, Politics, and Arms Supply. *Review of International Economics*, 20(1), 150-163. <https://doi.org/https://doi.org/10.1111/j.1467-9396.2011.01014.x>
- Coppedge, M., Gerring, J., Knutsen, C. H., Lindberg, S. I., & Teorell, J. (2023). *V-Dem [Country-Year/Country-Date] Dataset v13 Version 8*. <https://doi.org/https://doi.org/10.23696/vdemds23>
- Davenport, K. (2023). U.S. Says North Korea Shipped Arms to Russia. *Arms Control Association*. <https://www.armscontrol.org/act/2023-11/news/us-says-north-korea-shipped-arms-russia>
- Davies, S., Pettersson, T., & Öberg, M. (2023). Organized violence 1989–2022, and the return of conflict between states. *Journal of Peace Research*, 60(4), 691-708. <https://doi.org/10.1177/00223433231185169>
- Defence Industry Europe. (2023). *Leonardo plans to enter the Leopard 2 tank production programme*. Retrieved 01.04.2024 from <https://defence-industry.eu/leonardo-plans-to-enter-the-leopard-2-tank-production-programme/>
- Defense Express. (2023). *Bundeswehr Tank Park Has Serious Problems, And Now Entire NATO Has to Sort This Out*. Retrieved 02.04.2024 from <https://en.defence-ua.com/analysis/bundeswehr-tank-park-has-serious-problems-and-now-entire-nato-has-to-sort-this-out-5975.html>
- Dreher, A. (2022). *Banking on Beijing : the aims and impacts of China's overseas development program*. New York, NY : Cambridge University Press.
- Dreher, A., & Jensen, N. M. (2013). Country or leader? Political change and UN General Assembly voting. *European Journal of Political Economy*, 29, 183-196. <https://doi.org/https://doi.org/10.1016/j.ejpoleco.2012.10.002>
- Dreher, A., Lang, V., Rosendorff, B. P., & Vreeland, J. R. (2021). Bilateral or Multilateral? International Financial Flows and the Dirty-Work Hypothesis. *The Journal of politics*, 84(4), 1932-1946. <https://doi.org/10.1086/718356>
- Dreher, A., Lang, V. F., Rosendorff, B. P., & Vreeland, J. R. (2018). Buying Votes and International Organizations: The Dirty Work-Hypothesis. *CESifo Group Munich*. https://www.ifo.de/DocDL/cesifo1_wp7329.pdf
- Dreher, A., Nunnenkamp, P., & Schmaljohann, M. (2015). The Allocation of German Aid: Self-interest and Government Ideology. *Economics & Politics*, 27(1), 160-184. <https://doi.org/https://doi.org/10.1111/ecpo.12053>
- Dreher, A., Nunnenkamp, P., & Thiele, R. (2008). Does US aid buy UN general assembly votes? A disaggregated analysis. *Public Choice*, 136(1-2), 139-164. <https://doi.org/https://doi.org/10.1007/s11127-008-9286-x>
- Dreher, A., & Sturm, J.-E. (2012). Do the IMF and the World Bank influence voting in the UN General Assembly? *Public Choice*, 151(1/2), 363-397. <https://doi.org/10.1007/s11127-010-9750-2>
- Dreher, A., & Yu, S. (2020). The Alma Mater effect: Does foreign education of political leaders influence UNGA voting? *Public Choice*, 185(1-2), 45-64. <https://doi.org/https://doi.org/10.1007/s11127-019-00739-8>
- Dufek, P., & Mochtak, M. (2019). A case for global democracy? Arms exports and conflicting goals in democracy promotion. *Journal of International Relations and Development*, 22(3), 610-639. <https://doi.org/https://doi.org/10.1057/s41268-017-0114-0>

- Farzanegan, M. R., & Gholipour, H. F. (2023). Russia's invasion of Ukraine and votes in favor of Russia in the UN General Assembly. *International Interactions*, 49(3), 454-470. <https://doi.org/10.1080/03050629.2023.2179046>
- Feldstein, S. (2022). The Larger Geopolitical Shift Behind Iran's Drone Sales to Russia. *Carnegie Endowment for International Peace*. <https://carnegieendowment.org/2022/10/26/larger-geopolitical-shift-behind-iran-s-drone-sales-to-russia-pub-88268>
- García-Alonso, M. C. (1999). Price competition in a model of arms trade. *Defence and Peace Economics*, 10(3), 273-303. <https://doi.org/10.1080/10430719908404927>
- Gartzke, E. (1998). Kant We All Just get Along? Opportunity, Willingness, and the Origins of the Democratic Peace. *American journal of political science*, 42(1), 1-27. <https://doi.org/10.2307/2991745>
- Gartzke, E. (2000). Preferences and the Democratic Peace. *International Studies Quarterly*, 44(2), 191-212. <http://www.jstor.org.ezproxy.ub.gu.se/stable/3013995>
- Gibler, D. M. (2009). International military alliances, 1648-2008. Correlates of War dataset. CQ Press. <https://correlatesofwar.org/data-sets/formal-alliances/>
- Grand, C. (2023). *A question of strategic credibility: How Europeans can fix the ammunition problem in Ukraine*. European Council on Foreign Relations. Retrieved 22.12.2023 from <https://ecfr.eu/article/a-question-of-strategic-credibility-how-europeans-can-fix-the-ammunition-problem-in-ukraine/>
- Haass, R. (2022, Sep/Oct 2022). The Dangerous Decade: A Foreign Policy for a World in Crisis. *Foreign Affairs*, 101(5), 25-30,32-38. <https://www.proquest.com/magazines/dangerous-decade-foreign-policy-world-crisis/docview/2715493296/se-2?accountid=11162>
- Haixia, Q. (2023). China's partners or US allies: the dual status of major European states and their voting behaviour in the UNGA. *Asia Europe Journal*, 21(2), 225-250. <https://doi.org/10.1007/s10308-023-00668-8>
- Harkavy, R. E. (2013). *Great Power Competition for Overseas Bases: The Geopolitics of Access Diplomacy*. Pergamon.
- Hegmann, G. (2023). *Doch schon in diesem Jahr? So will Rheinmetall die Leopard-Lieferung beschleunigen*. WELT. Retrieved 04.02.2024 from <https://www.welt.de/wirtschaft/article243299509/Leopard-Panzer-So-will-Rheinmetall-die-Lieferung-beschleunigen.html>
- Herre, B. (2023). Identifying Ideologues: A Global Dataset on Political Leaders, 1945–2020. *British Journal of Political Science*, 53(2), 740-748. <https://doi.org/10.1017/S0007123422000217>
- Hove, K., & Lillekvelland, T. (2015). Defence investment cost escalation – A refinement of concepts and revised estimates. *Norwegian Defence Research Establishment (FFI)*. Oslo. <https://ffi-publikasjoner.archive.knowledgearc.net/bitstream/handle/20.500.12242/1121/14-02318.pdf?sequence=1&isAllowed=y>
- Hwang, W., Sanford, A. G., & Lee, J. (2015). Does Membership on the UN Security Council Influence Voting in the UN General Assembly? *International Interactions*, 41(2), 256-278. <https://doi.org/10.1080/03050629.2015.982114>
- Johnson, R. A. I. (2015). The role and capabilities of major weapon systems transferred between 1950 and 2010: Empirical examinations of an arms transfer data set. *Defence and Peace Economics*, 28(3), 272-297. <https://doi.org/10.1080/10242694.2015.1033894>
- Johnson, R. A. I. (2020). Decision-Making in the Arms of a Dependent Relationship: Explaining Shifts in Importer Acquisition Patterns of Major Weapon Systems, 1955-2007. *Defence and Peace Economics*, 31(7), 851-868. <https://doi.org/10.1080/10242694.2019.1618651>

- Johnson, R. A. I., & Willardson, S. L. (2018). Human Rights and Democratic Arms Transfers: Rhetoric Versus Reality with Different Types of Major Weapon Systems. *International Studies Quarterly*, 62(2), 453-464. <https://doi.org/10.1093/isq/sqx077>
- Keating, E. G., & Arena, M. V. (2016). Defense inflation: what has happened, why has it happened, and what can be done about it? *Defence and Peace Economics*, 27(2), 176-183. <https://doi.org/10.1080/10242694.2015.1093760>
- Kemp, G. (1979). Arms Transfers and the 'Back-End' Problem in Developing Countries. In *Arms Transfers in the Modern World* (pp. 264-274). Praeger, New York.
- Kim, I. (2019). A Crude Bargain: Great Powers, Oil States, and Petro-Alignment. *Security studies*, 28(5), 833-869. <https://doi.org/10.1080/09636412.2019.1662478>
- Kinsella, D. (1998). Arms Transfer Dependence and Foreign Policy Conflict. *Journal of Peace Research*, 35(1), 7-23. <http://www.jstor.org.ezproxy.ub.gu.se/stable/425228>
- Kinsella, D. (2002). Rivalry, Reaction, and Weapons Proliferation: A Time-Series Analysis of Global Arms Transfers. *International Studies Quarterly*, 46(2), 209-230. <https://doi.org/10.1111/1468-2478.00230>
- Klecza, M., Buts, C., & Jegers, M. (2020). Addressing the "headwinds" faced by the European arms industry. *Defense & Security Analysis*, 36(2), 129-160. <https://doi.org/10.1080/14751798.2020.1750178>
- Kuziemko, I., & Werker, E. (2006). How Much Is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations. *Journal of Political Economy*, 114(5), 905-930. <https://doi.org/10.1086/507155>
- Lai, B., & Morey, D. S. (2006). Impact of Regime Type on the Influence of U.S. Foreign Aid. *Foreign Policy Analysis*, 2(4), 385-404. <http://www.jstor.org.ezproxy.ub.gu.se/stable/24907258>
- Lee, Y., & Dacass, T. (2022). Reducing the United States' risks of dependency on China in the rare earth market. *Resources policy*, 77, 102702. <https://doi.org/10.1016/j.resourpol.2022.102702>
- Lektzian, D., & Biglaiser, G. (2023). Sanctions, aid, and voting patterns in the United Nations General Assembly. *International Interactions*, 49(1), 59-85. <https://doi.org/10.1080/03050629.2023.2155151>
- Levine, P., & Smith, R. (1997). The arms trade. *Economic Policy*, 12(25), 336-370. <https://doi.org/10.1111/1468-0327.00024>
- Lockwood, N. J. (2013). International Vote Buying. *Harvard International Law Journal*, 54(1), 97-156. <https://journals.law.harvard.edu/ilj/wp-content/uploads/sites/84/2013/06/HLI104.pdf>
- Mandler, L., & Lutmar, C. (2021). Birds of a feather vote together? EU and Arab League UNGA Israel voting. *Israel Affairs*, 27(1), 89-104. <https://doi.org/10.1080/13537121.2021.1864851>
- Maoz, Z. (2006). *Defending the Holy Land : a critical analysis of Israel's security & foreign policy*. Ann Arbor : University of Michigan Press.
- Martínez-Zarzoso, I., & Johannsen, F. (2019). The Gravity of Arms. *Defence and Peace Economics*, 30(1), 2-26. <https://doi.org/10.1080/10242694.2017.1324722>
- Mousseau, M. (1997). Democracy and Militarized Interstate Collaboration. *Journal of Peace Research*, 34(1), 73-87. <https://doi.org/10.1177/0022343397034001006>
- NATO. (2023). *Interoperability: connecting forces*. Retrieved 29.01.2024 from https://www.nato.int/cps/en/natohq/topics_84112.htm#:~:text=NATO%20defines%20%22interoperability%E2%80%9D%20as%20the,tactical%2C%20operational%20and%20strategic%20objectives

- Nichter, S. (2008). Vote Buying or Turnout Buying? Machine Politics and the Secret Ballot. *The American Political Science Review*, 102(1), 19-31. <https://doi.org/https://doi.org/10.1017/S0003055408080106>
- OECD. (2024). *Net ODA (indicator)*. Retrieved 16.04.2024 from <https://data.oecd.org/oda/net-oda.htm>
- Onuf, N. G. (1989). *World of our making : rules and rule in social theory and international relations*. Columbia, S.C. : Univ. of South Carolina Press.
- Pearson, F. S. (1989). The Correlates of Arms Importation. *Journal of Peace Research*, 26(2), 153-163. <https://doi.org/10.1177/0022343389026002004>
- Platte, H., & Leuffen, D. (2016). German Arms Exports: Between Normative Aspirations and Political Reality. *German Politics*, 25(4), 561-580. <https://doi.org/10.1080/09644008.2016.1184651>
- Posaner, J., & Kayali, L. (2024). *Europe's arms production is in 'deep shit,' says Belgian ex-general*. Politico. Retrieved 02.04.2024 from <https://www.politico.eu/article/europes-arms-production-is-in-deep-shit-says-belgian-ex-general/>
- Posaner, J., Melkozerova, V., Kayali, L., Barigazzi, J., & Larson, C. (2023). *North Korea sends Putin tons of ammo. Europe can't do the same for Ukraine*. Politico. Retrieved 12.03.2024 from <https://www.politico.eu/article/vladimir-putin-kim-jong-un-russia-pyongyang-beats-brussels-to-a-million-ammunition-rounds/>
- Potrafke, N. (2009). Does government ideology influence political alignment with the U.S.? An empirical analysis of voting in the UN General Assembly. *The Review of International Organizations*, 4(3), 245-268. <https://doi.org/https://doi.org/10.1007/s11558-009-9066-5>
- Raab, M. (2024). *Explaining Russia's arms exports: What characterizes importing countries of Russian military equipment?* University of Gothenburg.
- Rangsimaporn, P. (2023). Southeast Asia in Kazakhstan's Omnidirectional Hedging Strategy. *Problems of Post-Communism*, 70(3), 277-289. <https://doi.org/10.1080/10758216.2021.1969250>
- Risse-Kappen, T. (1995). Democratic Peace — Warlike Democracies?: A Social Constructivist Interpretation of the Liberal Argument. *European Journal of International Relations*, 1(4), 491-517. <https://doi.org/10.1177/1354066195001004005>
- Russett, B. M. (1993). *Grasping the Democratic Peace*. Princeton University Press. <https://doi.org/doi:10.1515/9781400821020>
- Russett, B. M. (2001). *Triangulating peace : democracy, interdependence, and international organizations*. New York : Norton.
- Rynning, S. (2015). The false promise of continental concert: Russia, the West and the necessary balance of power. *International Affairs*, 91(3), 539-552. <https://doi.org/https://doi.org/10.1111/1468-2346.12285>
- Sanjian, G. S. (1991). Great power arms transfers: Modeling the decision-making processes of hegemonic, industrial, and restrictive exporters. *International Studies Quarterly*, 35(2), 173-193. <https://doi.org/10.2307/2600469>
- Saw, D. (2023). *Demand and Supply – The Complexities of Artillery and Ammunition Supply in the War in Ukraine*. European Security & Defence. Retrieved 22.12.2023 from <https://euro-sd.com/2023/01/articles/29154/demand-and-supply-the-complexities-of-artillery-and-ammunition-supply-in-the-war-in-ukraine/>
- SIPRI. (2023). SIPRI Arms Transfers Database, Stockholm International Peace Research Institute, Stockholm. <https://doi.org/10.55163/safc1241>
- Smith, A. (2014). Leader Turnover, Institutions, and Voting at the UN General Assembly. *Journal of Conflict Resolution*, 60(1), 143-163. <https://doi.org/10.1177/0022002714532689>

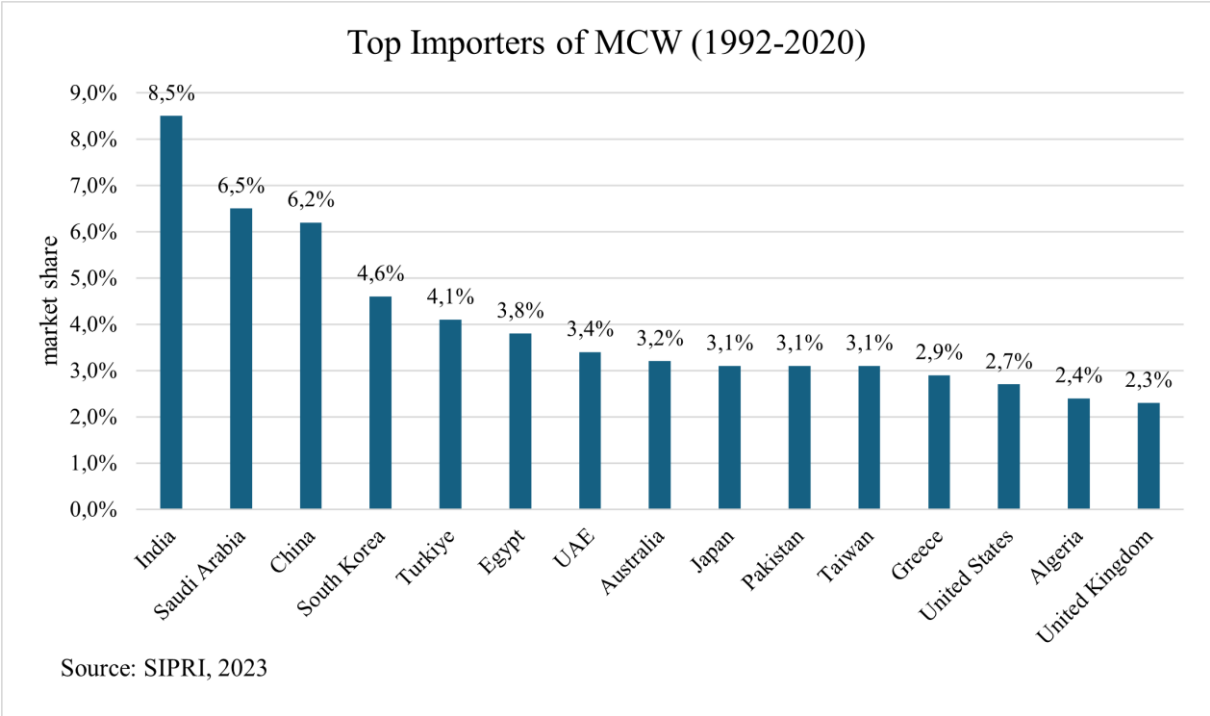
- Smith, R. P., & Tasiran, A. (2005). The Demand for Arms Imports. *Journal of Peace Research*, 42(2), 167-181. <https://doi.org/10.1177/0022343305050689>
- Spindel, J. (2023). Arms for influence? The limits of Great Power leverage. *European Journal of International Security*, 8(3), 395-412. <https://doi.org/10.1017/eis.2023.3>
- Stoelzel Chadwick, C. M., & Long, A. G. (2023). Foreign Policy Alignment and Russia's Energy Weapon. *Foreign Policy Analysis*, 19(2), orac042. <https://doi.org/10.1093/fpa/orac042>
- Stohl, R. J., & Grillot, S. (2009). *The international arms trade*. Cambridge : Polity Press.
- Thompson, W. R., Sakuwa, K., & Suhas, P. H. (2021). Rivalry Attributes and Foreign Policy Alignment Explaining Rivalry De-Escalation via UNGA Voting Patterns. In W. R. Thompson, K. Sakuwa, & P. H. Suhas (Eds.), *Analyzing Strategic Rivalries in World Politics* (Vol. 4, pp. 221-244). Singapore: Springer. https://doi.org/10.1007/978-981-16-6671-1_11
- Thurner, P. W., Schmid, C. S., Cranmer, S. J., & Kauermann, G. (2018). Network Interdependencies and the Evolution of the International Arms Trade. *Journal of Conflict Resolution*, 63(7), 1736-1764. <https://doi.org/10.1177/0022002718801965>
- United Nations, T. (2024). *Workings of the General Assembly*. Retrieved 15.04.2024 from <https://www.un.org/en/ga/>
- Voeten, E. (2015). Data and analyses of voting in the United Nations. In B. Reinalda (Ed.), *Routledge Handbook of International Organization* (pp. 54–66). Routledge (London and New York). <https://doi.org/10.4324/9780203405345.ch4>
- Voeten, E., Strezhnev, A., & Bailey, M. (2009). *United Nations General Assembly Voting Data* Version V31) [roll-call data]. Harvard Dataverse. <https://doi.org/doi:10.7910/DVN/LEJUQZ>
- Vreeland, J. R. (2019). Corrupting International Organizations. *Annual review of political science*, 22(1), 205-222. <https://doi.org/10.1146/annurev-polisci-050317-071031>
- Wang, T. Y. (1999). U.S. Foreign Aid and UN Voting: An Analysis of Important Issues. *International Studies Quarterly*, 43(1), 199-210. <https://doi.org/10.1111/0020-8833.00117>
- Wezemann, P. D., Gadon, J., & Wezemann, S. T. (2023). *Trends in International Arms Transfers*. SIPRI: Stockholm. <https://doi.org/10.55163/CPNS8443>
- Wheelock, T. R. (1978). Arms for Israel: The Limit of Leverage. *International Security*, 3(2), 123-137. <https://doi.org/10.2307/2626686>
- Willardson, S. L. (2013). *Under the influence of arms: The foreign policy causes and consequences of arms transfers*. Doctor of Philosophy (PhD) [University of Iowa]. <https://iro.uiowa.edu/esploro/outputs/9983776603402771>.
- Willardson, S. L., & Johnson, R. A. I. (2021). Arms transfers and international relations theory: Situating military aircraft sales in the broader IR context. *Conflict Management and Peace Science*, 39(2), 191-213. <https://doi.org/10.1177/0738894221992034>
- Woo, B., & Chung, E. (2017). Aid for Vote? United Nations General Assembly Voting and American Aid Allocation. *Political Studies*, 66(4), 1002-1026. <https://doi.org/10.1177/0032321717739144>
- World Bank, T. (2023). *GDP (current US\$)*. <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>
- World Bank, T. (2024a). *GDP per capita (constant 2015 US\$)*, [https://databank.worldbank.org/source/sustainable-development-goals-\(sdgs\)/Series/NY.GDP.PCAP.KD](https://databank.worldbank.org/source/sustainable-development-goals-(sdgs)/Series/NY.GDP.PCAP.KD).
- World Bank, T. (2024b). *Russia and the World Bank: International Development Assistance*. Retrieved 16.04.2024 from <https://www.worldbank.org/en/country/russia/brief/international->

[development#:~:text=Russia's%20Official%20Development%20Assistance%20steadily,through%20the%20World%20Bank%20Group.](#)

- Wu, X., & Velasco, J. C. (2024). Navigating the Indo-Pacific: Vietnam's Hedging Strategies Amid the Geopolitical Rivalry Between China and the United States. *Asian perspective*, 48(1), 95-118. <https://doi.org/10.1353/apr.2024.a919883>
- Young, H., & Rees, N. (2005). EU Voting Behaviour in the UN General Assembly, 1990-2002: The EU's Europeanising Tendencies. *Irish Studies in International Affairs*, 16, 193-207. <http://www.jstor.org.ezproxy.ub.gu.se/stable/30001942>
- Yu, Q. (2022). Dynamic Dirichlet process mixture model for identifying voting coalitions in the United Nations General Assembly human rights roll call votes. *Journal of applied statistics*, 49(12), 3002-3021. <https://doi.org/10.1080/02664763.2021.1931820>

10. Appendix

A1: Top Importers of MCW (1992-2020)



A2: Descriptive statistics on constructed variables

Variable	Mean	Min/max	Standard deviation	Observations
IPE distance to US	2.83	0/5.29	0.89	5803
IPE distance to RU	0.85	0/3.3	0.56	5803
IPE distance to FRA	1.68	0/4.14	0.83	5803
IPE distance to GER	1.37	0/3.67	0.8	5803
IPE distance to CHI	0.87	0/4.7	0.79	5803
Share of arms imports from US	0.13	0/1	0.29	5930
Share of arms imports from RU	0.07	0/1	0.23	5932
Share of arms imports from FRA	0.04	0/1	0.15	5930
Share of arms imports from GER	0.03	0/1	0.13	5932
Share of arms imports from CHI	0.04	0/1	0.16	5930
Trade with US as % of GDP	0.08	0/1.12	0.11	4002
Trade with RU as % of GDP	0.02	0/1.46	0.07	3831
Trade with FRA as % of GDP	0.03	0/1.88	0.05	3982
Trade with GER as % of GDP	0.04	0/1.55	0.07	3997
Trade with CHI as % of GDP	0.05	0/2.43	0.1	4000
Alliance with US (dummy)	0.28	0/1	0.45	4096
Alliance with RU (dummy)	0.1	0/1	0.3	4096
Alliance with FRA (dummy)	0.1	0/1	0.31	4096
Alliance with GER (dummy)	0.1	0/1	0.29	4096
Alliance with CHI (dummy)	0.04	0/1	0.18	4096

A3: Alternative full model including government ideology

	(1)	(2)	(3)	(4)	(5)
	IPE distance to Russia b/se	IPE distance to US b/se	IPE distance to France b/se	IPE distance to Germany b/se	IPE distance to China b/se
Arms imports from Russia (t-1)	-0.133* (0.06)				
Trade with Russia (as % of GDP)	-1.057** (0.35)				
Formal alliance with Russia (dummy)	-0.643* (0.30)				
Arms imports from US (t-1)		-0.003 (0.03)			
Trade with US (as % of GDP)		0.117 (0.16)			
Formal alliance with US (dummy)		0.031 (0.03)			
Arms imports from France (t-1)			0.002 (0.04)		
Trade with France (as % of GDP)			0.360 (0.60)		
Formal alliance with France (dummy)			-0.023 (0.04)		
Arms imports from Germany (t-1)				-0.004 (0.03)	
Trade with Germany (as % of GDP)				0.484 (0.36)	
Formal alliance with Germany (dummy)				0.046 (0.05)	
Arms imports from China (t-1)					0.005 (0.06)
Trade with China (as % of GDP)					-0.489 (0.31)
Formal alliance with China (dummy)					-0.496* (0.24)
Democracy	-0.960** (0.32)	-0.809*** (0.19)	-0.932*** (0.20)	-0.964*** (0.20)	0.113 (0.19)
Battle deaths	0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
GDP per capita (log)	-0.332** (0.10)	-0.182** (0.06)	-0.298*** (0.07)	-0.365*** (0.07)	-0.736*** (0.09)
Centrist head of government (dummy)	0.029 (0.09)	0.044 (0.05)	0.016 (0.05)	-0.005 (0.05)	0.041 (0.06)
Right-wing head of government (dummy)	0.054 (0.04)	-0.013 (0.03)	-0.016 (0.03)	-0.010 (0.02)	0.016 (0.03)
Constant	4.244*** (0.90)	4.801*** (0.50)	4.663*** (0.54)	4.851*** (0.51)	7.059*** (0.74)
R ²	0.080	0.071	0.119	0.147	0.199
Number of observations	2807	2881	2881	2880	2879
Number of countries	159	159	159	159	159
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A4.1: Russian arms transfers with different lag structures

	(1) IPE distance to Russia b/se	(2) IPE distance to Russia b/se	(3) IPE distance to Russia b/se	(4) IPE distance to Russia b/se	(5) IPE distance to Russia b/se
Arms imports from Russia (t ₁)	-0.104 (0.05)				
Arms imports from Russia (t ₀)		-0.153** (0.05)			
Arms imports from Russia (t-1)			-0.140** (0.05)		
Arms imports from Russia (t-2)				-0.125** (0.05)	
Arms imports from Russia (t-5)					-0.119** (0.04)
Democracy	-1.226*** (0.31)	-1.224*** (0.31)	-1.105*** (0.32)	-0.946** (0.31)	-0.642** (0.24)
Trade with Russia (as % of GDP)	-0.377 (0.49)	-0.385 (0.49)	-1.116** (0.34)	-1.039* (0.42)	-0.633 (0.51)
Formal alliance with Russia (dummy)	-0.624** (0.22)	-0.616** (0.22)	-0.638* (0.29)	-0.643* (0.29)	-0.273*** (0.03)
Battle deaths	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000** (0.00)
GDP per capita (log)	-0.378*** (0.11)	-0.374*** (0.11)	-0.365*** (0.11)	-0.317** (0.10)	-0.206** (0.07)
Constant	4.770*** (0.94)	4.741*** (0.94)	4.608*** (0.90)	4.104*** (0.81)	2.902*** (0.61)
R ²	0.098	0.100	0.093	0.079	0.050
Number of observations	3055	3055	2954	2843	2454
Number of countries	162	162	162	162	162
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A4.2: US arms transfers with different lag structures

	(1) IPE distance to US b/se	(2) IPE distance to US b/se	(3) IPE distance to US b/se	(4) IPE distance to US b/se	(5) IPE distance to US b/se
Arms imports from US (t ₁)	-0.007 (0.03)				
Arms imports from US (t ₀)		-0.010 (0.03)			
Arms imports from US (t ₋₁)			-0.003 (0.03)		
Arms imports from US (t ₋₂)				-0.015 (0.03)	
Arms imports from US (t ₋₅)					0.036 (0.03)
Democracy	-0.879*** (0.17)	-0.883*** (0.17)	-0.896*** (0.18)	-0.855*** (0.19)	-0.637** (0.20)
Trade with US (as % of GDP)	-0.017 (0.16)	-0.011 (0.16)	0.017 (0.17)	0.091 (0.21)	0.426 (0.27)
Battle deaths	-0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)
Formal alliance with US (dummy)	0.044 (0.03)	0.047 (0.03)	0.047 (0.03)	0.034 (0.03)	0.061** (0.02)
GDP per capita (log)	-0.213*** (0.06)	-0.212*** (0.06)	-0.207** (0.06)	-0.210** (0.06)	-0.071 (0.06)
Constant	5.128*** (0.47)	5.118*** (0.47)	5.072*** (0.49)	5.074*** (0.51)	3.740*** (0.51)
R ²	0.093	0.093	0.088	0.083	0.037
Number of observations	3170	3170	3044	2909	2475
Number of countries	163	163	163	163	163
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A4.3: French arms transfers with different lag structures

	(1) IPE distance to France b/se	(2) IPE distance to France b/se	(3) IPE distance to France b/se	(4) IPE distance to France b/se	(5) IPE distance to France b/se
Arms imports from France (t ₁)	-0.032 (0.04)				
Arms imports from France (t ₀)		-0.021 (0.04)			
Arms imports from France (t-1)			-0.008 (0.04)		
Arms imports from France (t-2)				-0.052 (0.04)	
Arms imports from France (t-5)					0.010 (0.05)
Democracy	-0.973*** (0.17)	-0.981*** (0.17)	-1.012*** (0.19)	-0.950*** (0.20)	-0.704*** (0.20)
Trade with France (as % of GDP)	0.416 (0.53)	0.469 (0.54)	0.348 (0.56)	0.482 (0.56)	0.678 (0.48)
Battle deaths	-0.000 (0.00)	0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)
Formal alliance with France (dummy)	0.023 (0.05)	0.016 (0.05)	0.018 (0.05)	-0.009 (0.06)	0.055 (0.09)
GDP per capita (log)	-0.318*** (0.06)	-0.317*** (0.06)	-0.321*** (0.07)	-0.302*** (0.07)	-0.145* (0.06)
Constant	4.859*** (0.50)	4.855*** (0.50)	4.899*** (0.53)	4.704*** (0.53)	3.220*** (0.46)
r ²	0.141	0.142	0.140	0.125	0.054
Number of observations	3167.000	3167.000	3042.000	2907.000	2473.000
Number of countries	162	162	162	162	162
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A4.4: German arms transfers with different lag structures

	(1)	(2)	(3)	(4)	(5)
	IPE distance to Germany b/se	IPE distance to Germany b/se	IPE distance to Germany b/se	IPE distance to Germany b/se	IPE distance to Germany b/se
Arms imports from Germany (t ₁)	0.017 (0.03)				
Arms imports from Germany (t ₀)		0.022 (0.04)			
Arms imports from Germany (t ₋₁)			0.011 (0.03)		
Arms imports from Germany (t ₋₂)				0.030 (0.03)	
Arms imports from Germany (t ₋₅)					0.044 (0.03)
Democracy	-1.033*** (0.18)	-1.034*** (0.18)	-1.027*** (0.20)	-0.921*** (0.20)	-0.804*** (0.23)
Trade with Germany (as % of GDP)	0.565 (0.40)	0.586 (0.40)	0.444 (0.35)	0.464 (0.35)	0.234 (0.28)
Battle deaths	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000*** (0.00)
Formal alliance with Germany (dummy)	0.043 (0.06)	0.040 (0.06)	0.060 (0.05)	0.083 (0.04)	0.089*** (0.03)
GDP per capita (log)	-0.403*** (0.07)	-0.404*** (0.07)	-0.387*** (0.07)	-0.343*** (0.07)	-0.363*** (0.07)
Constant	5.208*** (0.55)	5.221*** (0.55)	5.071*** (0.56)	4.633*** (0.55)	4.736*** (0.51)
R ²	0.177	0.179	0.165	0.139	0.115
Number of observations	3167	3167	3041	2907	2473
Number of countries	162	162	162	162	162
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A4.5: Chinese arms transfers with different lag structures

	(1)	(2)	(3)	(4)	(5)
	IPE distance to China b/se	IPE distance to China b/se	IPE distance to China b/se	IPE distance to China b/se	IPE distance to China b/se
Arms imports from China (t ₁)	0.002 (0.06)				
Arms imports from China (t ₀)		-0.003 (0.06)			
Arms imports from China (t ₋₁)			-0.022 (0.07)		
Arms imports from China (t ₋₂)				-0.041 (0.06)	
Arms imports from China (t ₋₅)					0.045 (0.03)
Democracy	0.109 (0.15)	0.096 (0.15)	0.022 (0.17)	0.021 (0.16)	0.019 (0.11)
Trade with China (as % of GDP)	-0.556 (0.32)	-0.562 (0.33)	-0.557 (0.34)	-0.460 (0.29)	-0.087 (0.10)
Battle deaths	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
Formal alliance with China (dummy)	-0.521* (0.21)	-0.519* (0.21)	-0.526* (0.24)	-0.473* (0.23)	-0.250 (0.16)
GDP per capita (log)	-0.635*** (0.08)	-0.643*** (0.08)	-0.699*** (0.09)	-0.660*** (0.08)	-0.253*** (0.05)
Constant	6.177*** (0.64)	6.256*** (0.65)	6.773*** (0.71)	6.428*** (0.67)	2.923*** (0.38)
R ²	0.175	0.177	0.196	0.180	0.050
Number of observations	3168	3168	3042	2908	2475
Number of countries	163	163	163	163	163
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A5.1: Reduced models with increased sample size

	(1)	(2)	(3)	(4)	(5)
	IPE distance to Russia b/se	IPE distance to US b/se	IPE distance to France b/se	IPE distance to Germany b/se	IPE distance to China b/se
Arms imports from Russia (t-1)	-0.085 (0.05)				
Arms imports from US (t-1)		-0.010 (0.03)			
Arms imports from France (t-1)			-0.002 (0.03)		
Arms imports from Germany (t-1)				0.009 (0.03)	
Arms imports from China (t-1)					0.005 (0.05)
Democracy	-1.027*** (0.22)	-0.776*** (0.17)	-0.844*** (0.17)	-0.835*** (0.17)	-0.039 (0.14)
Battle deaths	-0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000*** (0.00)	0.000* (0.00)
GDP per capita (log)	-0.279*** (0.07)	-0.179** (0.06)	-0.205*** (0.06)	-0.117* (0.05)	-0.622*** (0.07)
Constant	3.724*** (0.62)	4.771*** (0.44)	3.860*** (0.44)	2.784*** (0.42)	6.073*** (0.55)
R ²	0.086	0.089	0.104	0.072	0.174
Number of observations	4402	4402	4402	4402	4402
Number of countries	168	168	168	168	168
Time period covered	1992-2020	1992-2020	1992-2020	1992-2020	1992-2020

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A5.2: Reduced models with constant sample size

	(1) IPE distance to Russia b/se	(2) IPE distance to US b/se	(3) IPE distance to France b/se	(4) IPE distance to Germany b/se	(5) IPE distance to China b/se
Arms imports from Russia (t-1)	-0.154** (0.05)				
Arms imports from US (t-1)		-0.002 (0.03)			
Arms imports from France (t-1)			-0.010 (0.04)		
Arms imports from Germany (t-1)				0.013 (0.03)	
Arms imports from China (t-1)					-0.039 (0.07)
Arms imports from US (t-1)					
Democracy	-1.069** (0.32)	-0.897*** (0.18)	-1.015*** (0.19)	-1.038*** (0.19)	-0.003 (0.18)
Battle deaths	0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
GDP per capita (log)	-0.377*** (0.11)	-0.206*** (0.06)	-0.322*** (0.07)	-0.384*** (0.07)	-0.778*** (0.09)
Constant	4.583*** (0.93)	5.082*** (0.48)	4.924*** (0.53)	5.074*** (0.56)	7.400*** (0.74)
R ²	0.081	0.088	0.139	0.164	0.169
Number of observations	2954	3042	3042	3041	3040
Number of countries	162	162	162	162	162
Time period covered	1992-2020	1992-2020	1992-2020	1992-2020	1992-2020

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A5.3: Reduced models with extended time period and constant country sample

	(1) IPE distance to Russia b/se	(2) IPE distance to US b/se	(3) IPE distance to France b/se	(4) IPE distance to Germany b/se	(5) IPE distance to China b/se
Arms imports from Russia (t-1)	-0.086 (0.05)				
Arms imports from US (t-1)		-0.010 (0.03)			
Arms imports from France (t-1)			-0.005 (0.03)		
Arms imports from Germany (t-1)				-0.000 (0.03)	
Arms imports from China (t-1)					0.007 (0.05)
Democracy	-1.030*** (0.22)	-0.778*** (0.17)	-0.845*** (0.17)	-0.838*** (0.17)	-0.017 (0.14)
Battle deaths	0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000*** (0.00)	0.000* (0.00)
GDP per capita (log)	-0.269*** (0.08)	-0.175** (0.06)	-0.201*** (0.06)	-0.113* (0.05)	-0.653*** (0.07)
Constant	3.660*** (0.62)	4.750*** (0.44)	3.832*** (0.45)	2.758*** (0.43)	6.349*** (0.54)
R ²	0.084	0.088	0.103	0.072	0.180
Number of observations	4306	4306	4306	4306	4306
Number of countries	162	162	162	162	162
Time period covered	1992-2020	1992-2020	1992-2020	1992-2020	1992-2020

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A6.1: Full model with threshold $X > 0$

	(1) IPE distance to Russia b/se	(2) IPE distance to US b/se	(3) IPE distance to France b/se	(4) IPE distance to Germany b/se	(5) IPE distance to China b/se
Arms imports from Russia (t-1)	-0.133*				
	(0.05)				
Trade with Russia (as % of GDP)	-0.455				
	(1.44)				
Formal alliance with Russia (dummy)	-1.205***				
	(0.17)				
Arms imports from US (t-1)		-0.001			
		(0.03)			
Trade with US (as % of GDP)		0.396			
		(0.49)			
Formal alliance with US (dummy)		-0.053			
		(0.08)			
Arms imports from France (t-1)			-0.029		
			(0.07)		
Trade with France (as % of GDP)			-0.404		
			(1.54)		
Formal alliance with France (dummy)			-0.041*		
			(0.02)		
Arms imports from Germany (t-1)				0.044	
				(0.04)	
Trade with Germany (as % of GDP)				-0.364	
				(0.81)	
Formal alliance with Germany (dummy)				0.211**	
				(0.08)	
Arms imports from China (t-1)					0.028
					(0.07)
Trade with China (as % of GDP)					-1.629*
					(0.78)
Formal alliance with China (dummy)					0.169
					(0.15)
Democracy	-0.924 (0.64)	-1.003*** (0.21)	-1.058** (0.35)	-1.322*** (0.28)	0.197 (0.23)
Battle deaths	0.000** (0.00)	-0.000 (0.00)	-0.000* (0.00)	-0.000 (0.00)	-0.000 (0.00)
GDP per capita (log)	-0.671*** (0.20)	-0.278* (0.12)	-0.610*** (0.16)	-0.641*** (0.16)	-0.159 (0.11)
Constant	7.018*** (1.58)	5.787*** (1.07)	7.821*** (1.38)	7.852*** (1.35)	1.744* (0.80)
R ²	0.248	0.103	0.207	0.279	0.116
Number of observations	499	994	591	537	280
Number of countries	99	118	111	99	78
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

A6.2: Reduced model with threshold $X > 0$

	(1)	(2)	(3)	(4)	(5)
	IPE distance to Russia b/se	IPE distance to US b/se	IPE distance to France b/se	IPE distance to Germany b/se	IPE distance to China b/se
Arms imports from Russia (t-1)	-0.081 (0.05)				
Arms imports from US (t-1)		0.003 (0.03)			
Arms imports from France (t-1)			-0.014 (0.05)		
Arms imports from Germany (t-1)				0.025 (0.04)	
Arms imports from China (t-1)					0.073 (0.05)
Democracy	-0.377 (0.36)	-0.585*** (0.17)	-0.395 (0.29)	-0.703** (0.24)	0.105 (0.17)
Battle deaths	0.000 (0.00)	0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	-0.000*** (0.00)
GDP per capita (log)	-0.529*** (0.13)	-0.372*** (0.08)	-0.523*** (0.10)	-0.419*** (0.10)	-0.121 (0.07)
Constant	5.356*** (0.98)	6.361*** (0.69)	6.572*** (0.83)	5.474*** (0.86)	1.378** (0.47)
R ²	0.170	0.123	0.190	0.185	0.030
Number of observations	724	1482	905	805	476
Number of countries	112	135	131	116	101
Time period covered	1992-2020	1992-2020	1992-2020	1992-2020	1992-2020

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.

A7: Correlation between democracy and GDP per capita

	Vdem_polyarchy	Gdp per capita
Vdem_polyarchy	1	
Gdp per capita	0.5265	1

A8.1: Multicollinearity test (Russia)

Variable	VIF	1/VIF
Gdp per capita	7.17	0.14
Democracy	6.62	0.15
Formal alliance with Russia	1.69	0.59
Trade with Russia (as % of GDP)	1.63	0.61
Arms imports from Russia (t-1)	1.18	0.85
Battle deaths	1.02	0.98
Mean VIF	3.22	

A8.2: Multicollinearity test (USA)

Variable	VIF	1/VIF
Democracy	8.18	0.12
Gdp per capita	7.66	0.13
Formal alliance with US	2.34	0.43
Trade with US (as % of GDP)	1.74	0.57
Arms imports from Russia (t ₁)	1.45	0.69
Battle deaths	1.01	0.99
Mean VIF	3.73	

A8.3: Multicollinearity test (France)

Variable	VIF	1/VIF
Gdp per capita	7.22	0.14
Democracy	6.67	0.15
Trade with France (as % of GDP)	1.69	0.59
Formal alliance with France	1.36	0.74
Arms imports from France (t ₁)	1.09	0.92
Battle deaths	1.02	0.99
Mean VIF	3.17	

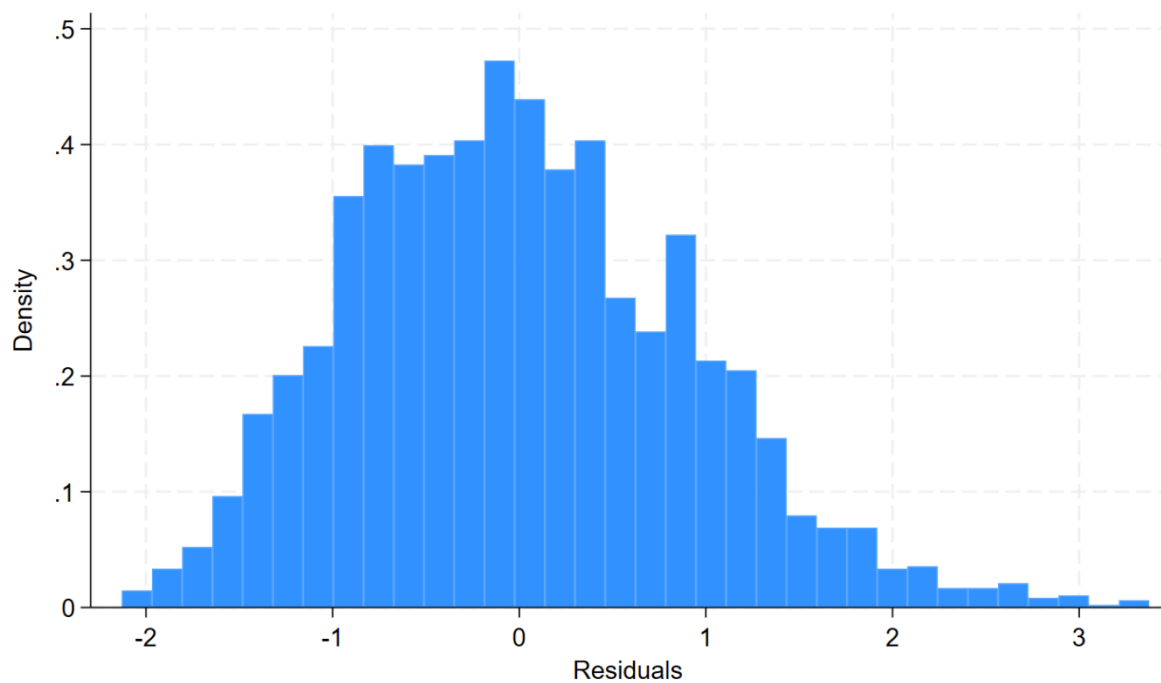
A8.4: Multicollinearity test (Germany)

Variable	VIF	1/VIF
Democracy	7.23	0.14
Gdp per capita	6.46	0.15
Trade with Germany (as % of GDP)	1.92	0.52
Formal alliance with Germany	1.43	0.7
Arms imports from Germany (t ₁)	1.14	0.88
Battle deaths	1.01	0.99
Mean VIF	3.20	

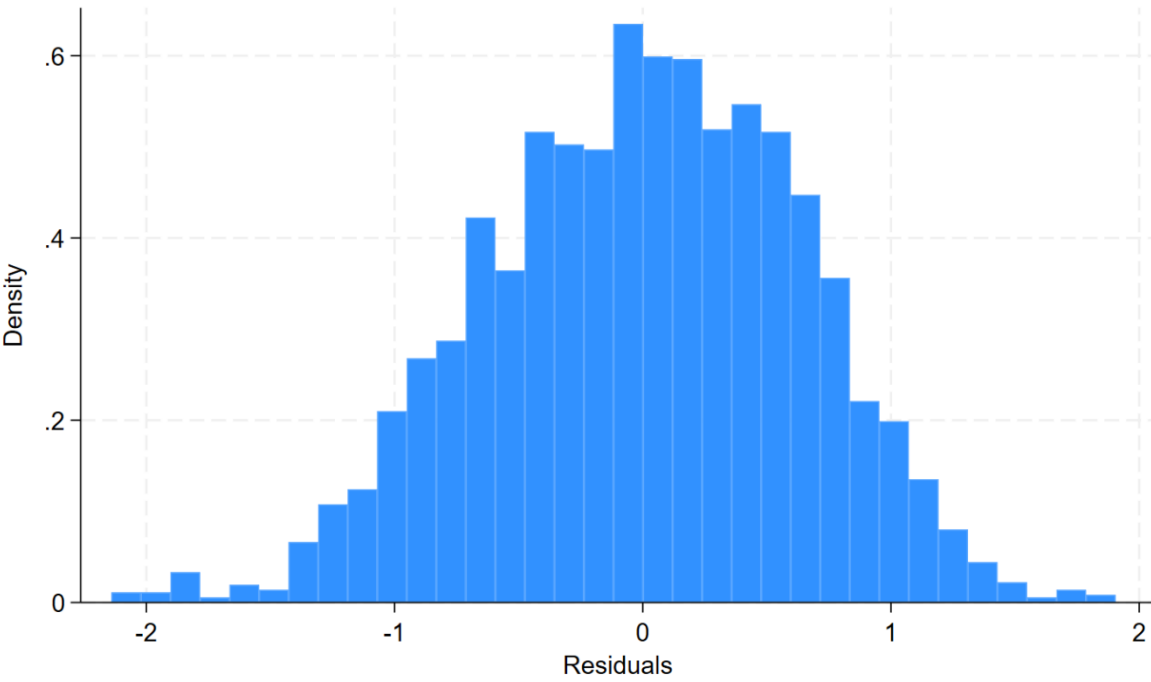
A8.5: Multicollinearity test (China)

Variable	VIF	1/VIF
Gdp per capita	7.33	0.14
Democracy	6.76	0.15
Trade with China (as % of GDP)	1.19	0.84
Formal alliance with China	1.08	0.92
Arms imports from China (t_1)	1.05	0.95
Battle deaths	1.02	0.98
Mean VIF	3.07	

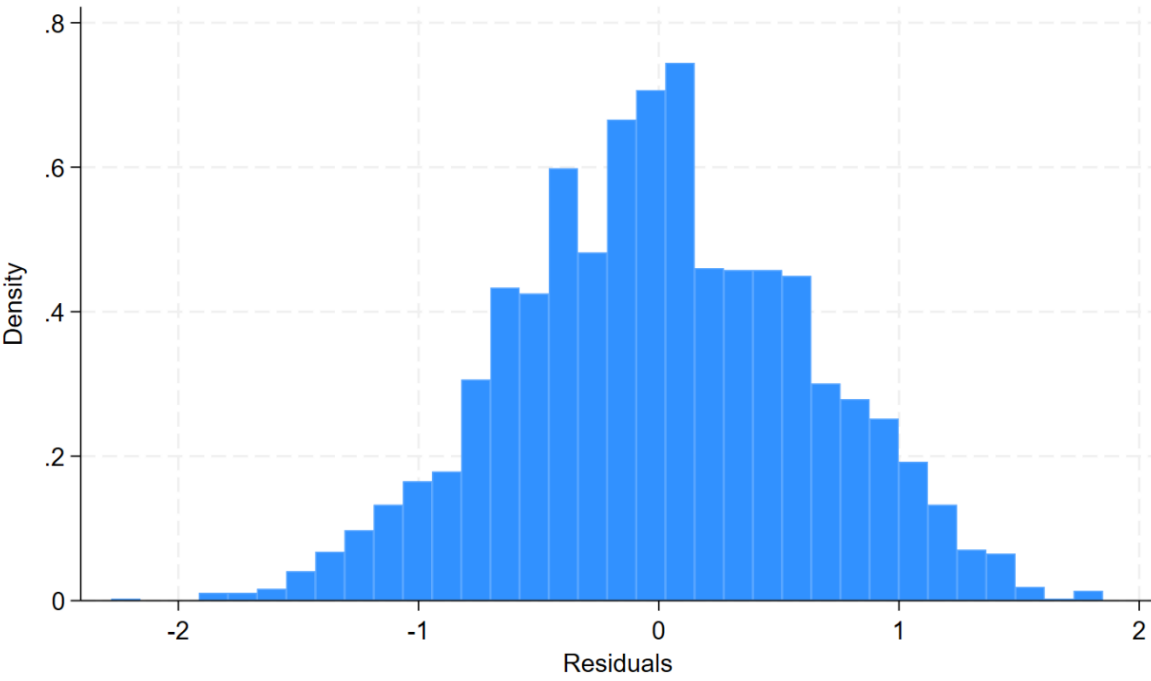
A9.1: Histogram of residuals (Russia full model)



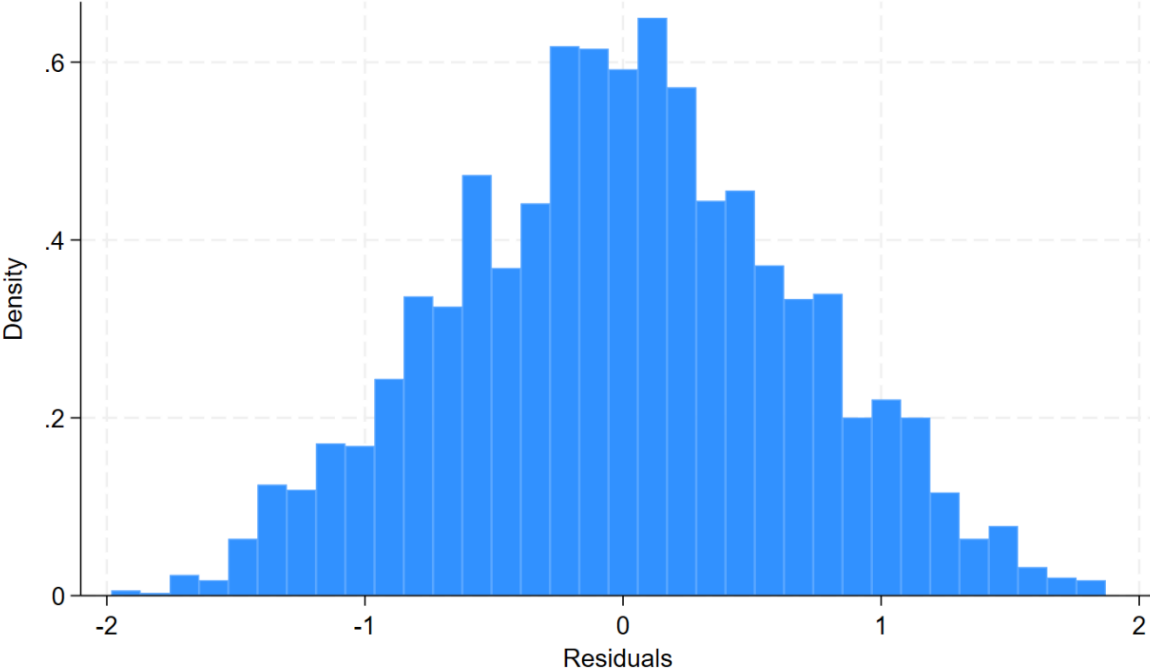
A9.2: Histogram of residuals (US full model)



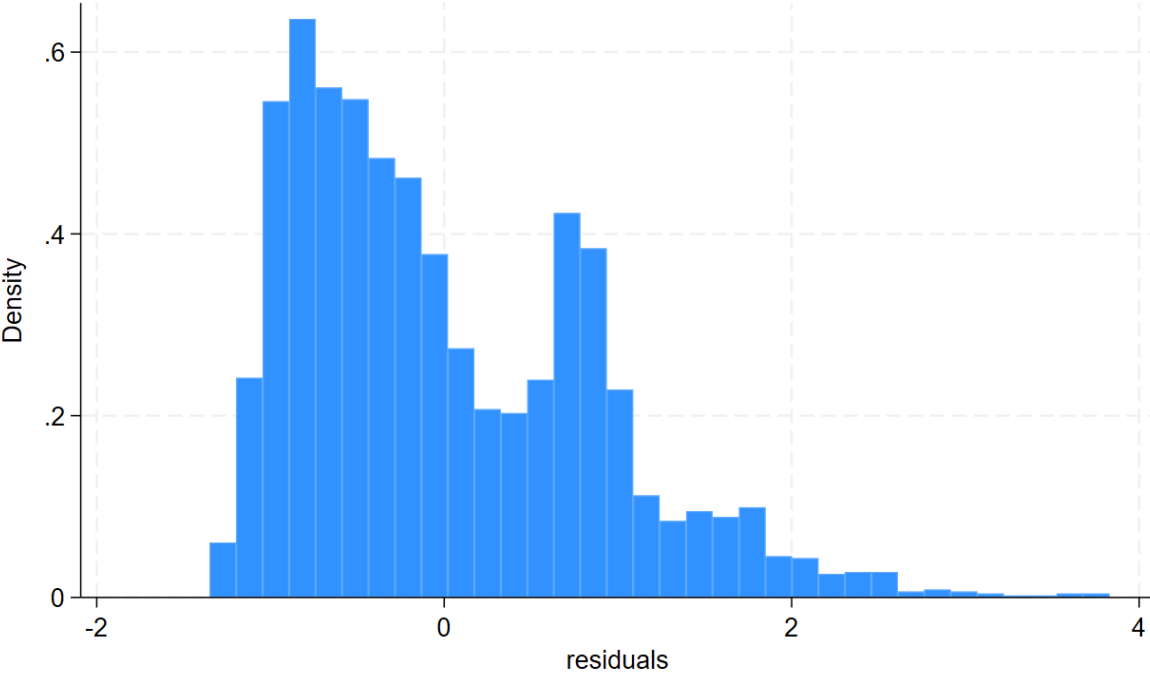
A9.3: Histogram of residuals (France full model)



A9.4: Histogram of residuals (Germany full model)



A9.5: Histogram of residuals (China full model)



A10: Full models without outliers (cooksdi>1)

	(1) IPE distance to Russia b/se	(2) IPE distance to US b/se	(3) IPE distance to France b/se	(4) IPE distance to Germany b/se	(5) IPE distance to China b/se
Arms imports from Russia (t-1)	-0.140** (0.05)				
Trade with Russia (as % of GDP)	-1.118** (0.34)				
Formal alliance with Russia (dummy)	-0.638* (0.29)				
Arms imports from US (t-1)		-0.003 (0.03)			
Trade with US (as % of GDP)		0.019 (0.17)			
Formal alliance with US (dummy)		0.047 (0.03)			
Arms imports from France (t-1)			-0.008 (0.04)		
Trade with France (as % of GDP)			0.352 (0.56)		
Formal alliance with France (dummy)			0.017 (0.05)		
Arms imports from Germany (t-1)				0.010 (0.03)	
Trade with Germany (as % of GDP)				0.591 (0.42)	
Formal alliance with Germany (dummy)				0.045 (0.05)	
Arms imports from China (t-1)					-0.015 (0.06)
Trade with China (as % of GDP)					-0.546 (0.33)
Formal alliance with China (dummy)					-0.533* (0.24)
Democracy	-1.103*** (0.32)	-0.896*** (0.18)	-1.013*** (0.19)	-1.033*** (0.20)	0.022 (0.17)
Battle deaths	0.000 (0.00)	-0.000 (0.00)	-0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
GDP per capita (log)	-0.366*** (0.11)	-0.208** (0.06)	-0.321*** (0.07)	-0.388*** (0.07)	-0.685*** (0.09)
Constant	4.612*** (0.90)	5.081*** (0.49)	4.901*** (0.53)	5.074*** (0.56)	6.603*** (0.69)
R ²	0.093	0.088	0.140	0.166	0.195
Number of observations	2952	3041	3041	3036	2993
Number of countries	162	162	162	162	161
Time period covered	1992-2012	1992-2012	1992-2012	1992-2012	1992-2012

Note: Robust standard errors in parentheses. All models include fixed effects. *p < 0.05; **p < 0.01; ***p < 0.001.