Russia, the Bomb, and IR theory. Explaining Russian nuclear weapons policy in the post-Cold War era.

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Abstract

This thesis sets out to assess three major theories of international relations – neorealism, neoliberalism and social constructivism – for their ability to explain Russia's nuclear weapons policy in the post-Cold War era. First, this research examines the development of Russia's decision-making and subsequent policy regarding nuclear weapons between 1993 and present. It does so by looking at three major indicators of said policy during this time period: the role attributed to nuclear weapons according to Russia's official military doctrine, the size (quantity) and strength (quality) of the Russian nuclear arsenal and the use of threatening nuclear rhetoric by Russian policy makers. Then, five hypotheses are put to the test, in order to assess the respective utility of the three mentioned theories as a model to explain the Russian policy. Respectively, this research examines the extent to which changes in Russia's power position, its economic interdependence, its adherence to the international nuclear regime, norms prevailing in Russia's society and Russia's perception of the US had any influence on the direction of Russia's nuclear weapons policy. When it comes to the assessment of neorealism, neoliberalism and social constructivism, this research concludes that, while none of the three theories' expectations are fully met, Russian nuclear weapons policy in the post-Cold War era can best be explained by combining insights from both neorealism and neoliberalism.

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List of Abbreviations

EU	European Union
CTBT	Comprehensive Nuclear-Test Ban Treaty
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
IMF	International Monetary Fund
NATO	North Atlantic Treaty Organization
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NTI	Nuclear Threat Initiative
RF	Russian Federation
SLBM	Submarine-Launched Ballistic Missile
SORT	Strategic Offensive Reductions Treaty
START (I-III)	Strategic Arms Reductions Treaty (I-III)
UN	United Nations
US	United States
USD	United States Dollar

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1 Introduction

1.1 Background

Since early 2014, already strained relations between the West – that is, members of the EU and NATO, in particular the United States – and the Russian Federation have been under constant pressure. Tensions between the two sides increased rapidly after Russia took de facto control of the Crimean Peninsula in March 2014. Subsequent factors leading to a further escalation of tensions include the apparent Russian involvement in the civil war raging in Ukraine's Donbass region, the downing of Malaysia Airlines Flight 17 in August 2014, and Russia's stance regarding the civil war in Syria, which directly opposes that of the West.

Against this backdrop, the Russian president Vladimir Putin asserted in March 2015 that Russia had seriously considered the use of tactical nuclear weapons in the event of NATO interference with Russia's 2014 operations in Crimea. In June that same year, Putin announced that Russia would increase its nuclear strike capabilities, by bringing over forty new intercontinental ballistic missiles into service later in 2015. Putin's statements were consequently condemned by NATO Secretary-General Jens Stoltenberg. Stoltenberg referred to Putin's comments as "nuclear sabre-rattling", calling the comments both "destabilizing and dangerous" (Agence France-Presse, 2015). Ultimately, NATO responded in a more resilient way as well. The organization announced a thorough re-evaluation of its nuclear weapons strategy, hinting at the placement of more nuclear weapons on the European continent (MacAskill 2015). Almost twenty-five years since the end of the Cold War, nuclear weapons are once again on the forefront of politics between Russia and the West.

In the bulk of Western media, Russia's recent nuclear rhetoric has been branded as an extraordinary escalation of tensions between Russia on one hand, and NATO and the United States on the other. Fears of Russia upping the ante by modernizing, or even reinforcing, its nuclear arsenal, have grown substantially. Specifically, NATO officials have voiced their

concern, identifying the Russian rhetoric as a signal that Russia might be lowering its threshold for the use of nuclear weapons in conflict situations; a decision implying a return to Cold War nuclear strategies (MacAskill 2015). Whether or not the foregoing is true is something up for debate. However, it should be clear that Russia's nuclear weapons policy plays an important part in shaping the relations between Russia and the rest of the world; its relations with members of NATO and the United States in particular. Keeping this in mind, two questions arise: to what extent did Russia's nuclear weapons policy change in the post-Cold War era; and how can one explain changes in said policy?

1.2 Scope and Significance

As a whole, explaining state behavior lies within the realm of international relations (IR) theory. Accordingly, this thesis seeks to examine the utility of three theories of international relations as a model to explain changes in Russia's nuclear weapons policy in the post-Cold War era. The theories put to the test in this piece are neorealism, neoliberalism and social constructivism – the three leading paradigms within international relations theory at present (Wolfrum 2011). This thesis shows how, according to the logic of each theory, states can be expected to make choices regarding their nuclear weapons policy. These particular explanations are then applied to the case of Russia's nuclear weapons policy, in order to see which theory best explains the choices Russia made in this respect. Consequently, the main research question this thesis seeks to answer is:

To what extent can three leading theories of International Relations – neorealism, neoliberalism and social constructivism – explain the development of Russia's nuclear weapons policy in the post-Cold War era?

Providing an answer to this question is highly relevant in light of today's international political environment. For many, the end of the Cold War signified the imminence of a

"perpetual peace" amongst the world's great powers (Mearsheimer 2014). Put differently, "the end of history as such" (Fukuyama 1989), a world in which intense security competition between the world's foremost powers would be a relic of the past, was about to descend upon mankind. As we have seen, this has regrettably not been the case, something reflected perhaps most prominently in the fact that both the United States and Russia still harbor thousands of nuclear weapons. Moreover, more states than ever before have acquired nuclear weapons over the past two decades, most notably Pakistan and North-Korea, regardless of multiple international treaties aimed at preventing the proliferation of nuclear weapons (Status of World Nuclear Forces 2015). Additionally, nuclear weapons, as well as their potential carriers, have never been as technologically advanced as they are today. Nuclear weapons thus remain to be a vastly important aspect of international politics and security.

Examining Russia's nuclear weapons policy through the respective lenses of neorealism, neoliberalism and social constructivism serves a dual purpose. Firstly, neorealism, neoliberalism and social constructivism each explain why countries make decisions surrounding nuclear weapons policy in a different way. This thesis consequently seeks to put the different assumptions these respective theories make regarding nuclear policy decision-making to the test. Secondly, this thesis seeks to contribute to the scholarly debate surrounding the three foremost theoretical approaches to international relations, specifically with regards to their explanatory capability in the current, unipolar international system.

Some of the ideas underlying the respective explanations of neorealism, neoliberalism and social constructivism have been scrutinized before; yet only in relation to explaining why a country decides to obtain nuclear weapons in the first place. However, there is a scarcity of literature assessing the three theories' predictions regarding the nuclear weapons policy of present nuclear weapons states; a major research gap this thesis strives to cover by placing the differing theoretical predictions regarding states and their nuclear strategy together in a

comparative framework. To summarize, this thesis seeks to resolve which of three international relations theories – neorealism, neoliberalism or social constructivism – best explains the development of Russia's nuclear weapons policy. It does so by examining the way each theory would predict how a country makes decisions surrounding its nuclear weapons policy; and then analyzing the specific case of Russia to find which of the respective theories' expectations are met, and which are not.

2 Theoretical Framework and Propositions

2.1 Neorealism

Neorealism, also known as structural realism, established itself as a distinct discipline in international relations in 1979, when Kenneth Waltz published his *Theory of International Politics*. Neorealism posits that the international system is anarchic in nature, and that this anarchy is what drives the rational actors operating within it – the states (Mearsheimer 2014). As the international system is anarchic, no one state can trust another fully. Thus, states are continuously embroiled in a struggle for survival (Waltz, cited in Art 2007, p. 35). However, when a state increases its own security, be it through increasing its own military strength or by cooperating with another state, this automatically decreases the security of other states. (Jervis, cited in Art 2007, p.90) This phenomenon, essential to neorealist thinking, is known as the security dilemma, and it is where the two main currents within neorealism itself, defensive realism and offensive realism, diverge. Whereas defensive realists assert that a state's primary concern is maintaining the existing balance of power between states – avoiding the security dilemma at all costs – offensive realists argue instead that states are expected to continuously seek to maximize their share of power (Mearsheimer 2014). Either way, a state's relative power position is what matters to neorealists, as this is what ultimately decides whether or not a state survives within the international system.

Neorealists generally define power as the material capabilities of a state relative to the

capabilities of other states; its military capabilities in particular (Ritchie 2009). It is considered reasonable for states to maximize their military power versus other states, as it is in their interest to do so if they seek to survive in the international system (Ritchie 2009). Neorealists argue there is no better way for a state to maximize its military power than through obtaining nuclear weapons. Nuclear weapons being the absolute pinnacle of military capabilities, every state attaining – and maintaining – a nuclear threat vastly increases its chances of survival (Mearsheimer 2014).

Thus, neorealists adhere to nuclear deterrence theory: the idea that a state's nuclear weapons, thanks to their sheer destructive power, deter a potentially more powerful foe from attacking it with its own nuclear weapons (Cimbala 2013). Nuclear weapons as such need not to be actually used: their mere existence is enough to scare away any potential opponent from nuclear attack (Sagan 1996). After all, which rational-thinking nuclear weapons state would attack another nuclear weapons state, knowing that assured retaliation – and potential mutual destruction – were to follow? (Jervis 1989) It is therefore not a surprise that some neorealists argue that if every single state on earth were to possess nuclear weapons, this would lead to an incredibly stable balance of power spanning across the globe (Waltz 1981).

Such thinking exposes a flaw inherent to the state-centric approach of neorealism. It assumes states are rational actors, and thus fails to account for potential decisions made by world leaders or non-state actors not thinking according to the 'rules' of the system. Additionally, neorealism treats states as so-called 'black boxes: it does not detail domestic factors potentially influencing state behavior – in this case a state's nuclear weapons policy. If these factors prove to be of importance in Russia's decision-making regarding its nuclear weapons policy, this seriously dents neorealism's potential in explaining said policy.

Neorealism foresees that if the balance of relative military capabilities between states is upset in favor of one particular actor – or group of actors – other states in the system will

automatically seek to counterbalance this. Thus, whenever a state acquires nuclear weapons, its rival states should do so too (Hymans 2006). This is what happened during the early stages of the Cold War: as soon as it became evident the United States had acquired nuclear weapons, the Soviet Union stepped up its own nuclear weapons program (Sagan 1996). Neorealist thinking in this respect fails to account for the fact that many countries capable of producing nuclear weapons have chosen not to do so, both in the present and in the past (Hymans 2006). While thus certainly not flawless in explaining nuclear proliferation, the neorealist predictive model may still be useful in explaining the nuclear weapons policy of a state *already* owning nuclear weapons. Neorealism holds that if the relative power position of a nuclear weapons state changes, this should be reflected in its nuclear weapons policy. If said state's relative share of world power declines, nuclear weapons should become more preeminent in its national security strategy; meaning that the size and strength of its nuclear arsenal should increase, its government should make more nuclear threats and its threshold for using nuclear weapons should be lowered. Vice versa, if a state's relative share of world power rises, nuclear weapons should become less important to its national security strategy. Thus:

H1: A decline in Russia's relative share of world power should be followed by an increase in the strength and size of its nuclear weapons arsenal, the lowering of its threshold for using nuclear weapons and an increase in Russian nuclear threat-making; conversely, an increase in Russia's relative share of world power should lead to a decrease in the size and strength of its nuclear arsenal, a higher threshold for using nuclear weapons and a decrease in Russian nuclear threat-making.

2.2 Neoliberalism

The second model this thesis examines for its explanatory capability of Russia's nuclear weapons policy, neoliberalism, was developed in response to the preeminence of the neorealist paradigm within international relations theory. Neoliberalism is not one clearly definable

school of thought; under its wings lie a score of heterogeneous ideas and theories, attributable to a number of different scholars. These theories however share the idea that states should be most concerned with absolute gains, rather than relative gains to other states, thus differing substantially from neorealism (where a state's relative power position within the system is of importance). Neoliberalism agrees with neorealism to the extent that the international system, with states as its main actor, is anarchic, and that any form of hierarchy within this system cannot be enforced. However, neoliberals postulate that this anarchic nature is of less importance than neorealists think, and that – even in an anarchic system in which states are not able to fully trust each other – cooperation between states can materialize through the inception of certain norms, institutions and regimes (Keohane 1984).

By binding states together in such organizations and ideas, states are enabled to communicate more clearly with one another regarding sensitive issues. This subsequently leads to increased trust amongst these states. And, where there is sustained trust amongst states, peace is likely to follow, eventually removing the need for security competition between them (and thus diminishing the relevance of military strength in international relations) (Keohane 1984). This in essence forms the basic premise of neoliberal thought in international relations. In order to translate this premise into predictions regarding Russia's nuclear weapons policy, this thesis looks into two significant ideas within the neoliberal school of thought.

First, the idea of complex interdependence. This idea holds that international relations are shaped by (economic) interdependence between states. Scholars adhering to this principle argue that whenever the mutual economic dependence between two states increases, their reliance on military power can be expected to decrease (Keohane 1977). Economic interdependence between states makes these states more likely to cooperate, instead of to compete with each other (Keohane 1977). Put differently, as a state's (economic) interests become entangled with those of other states, this automatically lessens the incentive of the states

involved to engage in combat with each other. After all, which state would seek to harm its own, economic interests? When translated into a possible explanation for Russia's nuclear weapons policy, complex interdependence provides us with the ensuing hypothesis:

H2: The greater the extent of Russia's economic dependence on other states, the more Russia should decide to decrease the strength and size of its nuclear weapons arsenal, to increase its threshold for using nuclear weapons and to make less nuclear threats versus other countries.

The second idea from which a neoliberal hypothesis regarding Russia's nuclear weapons policy can be derived is regime theory. Regime theory holds that international institutions – or regimes – play a crucial role in mitigating anarchy and assisting cooperation between states. Neoliberals describe institutions more extensively as "persistent and connected sets of rules (formal or informal) that prescribe behavioral roles, constrain activity and shape expectations" of states (Keohane 1988). International regimes come in different shapes and sizes, yet international institutions are central to their existence. For example, the international regime of development aid is furthered by the World Bank and the International Monetary Fund (IMF). An international nuclear regime exist too, chiefly in the form of the Treaty on the Non-Proliferation of Nuclear Weapons (or NPT). The NPT is the world's only binding treaty aimed at preventing the spread of nuclear weapons and its related technology and furthering the goal of achieving nuclear disarmament (United Nations Office for Disarmament Affairs 2015). The international system's nuclear regime is complemented by regulatory institutions such as the International Atomic Energy Agency (IAEA), as well as by other agreements between states (such as various nuclear-weapons-free-zones and bi- and multilateral arms reduction treaties). The significance of international regimes in shaping a country's policy – as posited by neoliberal thinking – should thus become evident too when analyzing Russia's nuclear weapons policy. This leaves us with the following hypothesis:

H3: As Russia's envelopment in the international nuclear regime becomes more extensive, the strength and size of its nuclear weapons arsenal should decrease, its threshold for using nuclear weapons should increase and the less it should make nuclear threats versus other states.

Although this hypothesis may seem like an obvious truth, this does not necessarily have to be the case. After all, it is very much possible for Russia to be part of various arms reduction treaties and other multilateral agreements regarding nuclear weapons, while not living up to the standards of these agreements. Principally, the above hypothesis can only be validated if Russia truly adheres to the arrangements within these arms control treaties, as one would consider to be in line with the international nuclear regime as a whole. One should keep in mind that Russia's compliance with the various arms control treaties it signed can only be assessed to a certain extent. After all, whether or not Russia fulfills its obligations under these treaties can be assessed only by looking at estimates regarding the size and strength of Russia's nuclear arsenal. Estimates are used since data of actual Russian nuclear stockpiles throughout the years are impossible to attain within the scope of this research. This research thus attempts to assess Russia's compliance based on the information available to it, in this case estimates.

2.3 Constructivism

The third and final model this thesis assesses is constructivism. Constructivism is considered to be one of the most complex theories of international relations. Constructivists believe that political actors themselves construct international relations out of their own ideas about how these relations should be shaped – instead of these being predetermined by the anarchic structure of the international system, as neorealists and neoliberalists would argue. That is to say, social practice and interaction, both between states as well as occurring within states themselves, is what builds (or 'constructs') international relations. As social practice and interaction change over time, so do state interests, these interests continuously being molded into different shapes and forms. "Constructivism sees the world as a project under construction,

as becoming, rather than being" (Adler 2005).

To elaborate: "The things states do, their interests, and the structures within which they operate are constructed by social norms and ideas, instead of objectives, or material conditions" (Van Wyk et al. 2007). This notion directly opposes a key tenet of both neorealism and neoliberalism, i.e. that states, acting within the anarchy that is the international system, are always on the hunt for material gain – and that this consequently shapes the way a state interacts with other states. Alexander Wendt, who laid the theoretical foundation for constructivism, argues that even the idea of the international system being anarchic is a construct, created by the nation-states acting within this system (Wendt 1992). International relations according to constructivists are thus not set and stone, as they are being influenced continuously by developments occurring on two different levels, the internal level on one hand and the external level on the other (Ferrero 2014).

The internal level revolves around a state's norms and values, and their subsequent influence on the way a state views the world around it. Each state has a unique set of norms important to it, these being defined by internal characteristics including a state's history, its culture, and social practice. These norms makes states think, and accordingly behave, differently than other states in the international system. This influence can be observed in the nuclear weapons policy of other countries. Japan for example is a state considered to be paranuclear: it is perfectly capable to quickly produce nuclear weapons, without actually having done so (Panofsky 2007). Having suffered two devastating nuclear attacks – the only country in the world to do so – the norm prevailing in Japan is that nuclear weapons, even the development thereof, are taboo (Burr 2015). Another 'nuclear norm' is that of the non-use of nuclear weapons. Following 1945, the United States for instance has developed and produced numerous nuclear weapons; yet never used these weapons in combat again. If similar norms are

prevalent in Russia – or become more widespread – these can be expected to be reflected in its nuclear weapons policy:

H4: If certain norms, such as the non-use of nuclear weapons, become more predominant in the Russian society, this should be reflected in Russia's decision-making surrounding its nuclear weapons policy.

The external level then consists of the world outside the state itself, that is, the international state system as a whole (Ferrero 2014). Not only social interactions within states, as outlined above, but also interactions between states shape state behavior and, consequently, international politics. Suppose the relationship between the United States and the United Kingdom. Both possess vast material wealth and nuclear weapons, but due to their social relations the two nations do not see each other as a threat. How different it becomes when one looks at the threat the United States perceives North Korea to be. Due to the different (historical) social relationships the U.S. has with these countries, the U.S. reasonably reacts differently to the same action performed by different states. "Five-hundred British nuclear weapons are less threatening to the United States than five North Korean nuclear weapons" (Wendt, 1995). According to Alexander Wendt, who first applied the constructivist argument to the systemic level, whether a state views another as adversarial or as cooperative depends on the construction of this state's understanding of the international system and of each state (Ferrero 2014). The final hypothesis in this research stems from this line of thinking. A state's behavior, according to constructivism, should be influenced by the way this state perceives other states. Following this, Russia's nuclear weapons policy should be influenced by the way Russia views other nuclear weapons states, the United States in particular. This is because the United States, next to Russia, is by far the largest nuclear weapons state in the world.

H5: When Russia's perception of the United States changes for the better, this should lead to a decrease in the strength and size of its nuclear weapons arsenal, an increase in its threshold for

using nuclear weapons and a decrease in the making of nuclear threats against other countries. Similarly, when Russia's perception of the US changes for the worse, the opposite should occur: Russia's nuclear weapons arsenal should face a decrease in size and strength, its nuclear threshold should be lowered and it should make more nuclear threats against other states.

3 Methodology and Data Collection

3.1 Indicators and corresponding sources

This thesis consists of two major components. The first part examines Russia's nuclear weapons policy in the post-Cold War era, in order to establish that change in said policy has indeed occurred. The second part then consists of testing the hypotheses, as expressed in the foregoing part, against changes in the Russian policy. This thesis relies on the use of both qualitative and quantitative data. Its main research focus lies on examining fluctuations in Russia's policy regarding nuclear weapons, and then finding the extent to which these changes can be attributed to shifts in any factors important to the three theories and their respective predictions. This research examines Russia's nuclear weapons policy from the moment the constitution of the Russian Federation was adopted in December 1993 until present. This time frame is chosen in order to omit the unsettled and disorderly state of Russian affairs directly following the dissolution of the Soviet Union in 1991. The dependent variable in this research is the progression of Russia's policy regarding nuclear weapons in the post-Cold War era. Henceforth, this concept shall plainly be referred to as Russia's nuclear weapons policy. There are three potential directions which Russia's nuclear weapons policy can take: nuclear weapons can become less important to Russia's national security strategy, they can become more important, or their importance to Russia's national security strategy stays the same.

The three prime indicators used to determine the direction of Russia's policy are (1) the role given to nuclear weapons in Russia's official military doctrine, (2) the size and strength of Russia's nuclear arsenal, and (3) nuclear threats made by Russian government officials. Three

indicators are chosen, so as to gain as extensive insight as possible into Russia's nuclear weapons policy. For instance, merely looking into Russian military doctrine (established at fixed points in time) would not reflect short term changes in the attitude of Russian policy makers towards nuclear weapons and the use thereof. Such changes can be better understood by looking at official government statements regarding nuclear weapons, as well as by looking at the continuous development of the size and strength of the Russian nuclear weapons arsenal. Nevertheless, omitting official policy documents regarding Russia's military doctrine altogether would be a major flaw in itself: these documents provide insight in the strategic outlook Russian policymakers had at the time of writing these documents, and thus provide good insight in the Russian nuclear weapons policy as a whole. I expect all three indicators to have experienced at least some kind of change over time in the post-Cold War era, thus providing an all=inclusive image of the development of Russia's nuclear weapons policy.

Sources regarding the three indicators employed in this research are as follows. The role nuclear weapons play in Russia's military doctrine (1) is examined by looking chiefly into the official military doctrine of the Russian Federation, as laid out in three successive government documents regarding military strategy[1]:

- The *Basic Provision of the Military Doctrine of the Russian Federation* (1993)
  (Source: Federation of American Scientists)
- The *Military Doctrine of the Russian Federation* (2000)
  (Source: Arms Control Association)
- The *Military Doctrine of the Russian Federation* (2010)
  (Source: The School of Russian and Asian Studies)

[1] In December 2014, Russia's military doctrine was updated extensively and subsequently re-issued. The update did not constitute any subtantial changes to the 2010 Doctrine regarding its provisions on nuclear weapons policy, hence examining the 2014 version is omitted from this research altogether.

These documents cover the likely character of any future war involving Russia, the preparations of the Russian military for such a conflict and the methods of waging it. Above all, these documents list specific provisions regarding the use and (future) development of Russia's nuclear weapons arsenal. Secondly, in order to deepen understanding of Russia's nuclear weapons doctrine, this thesis also looks into documents providing more of a comprehensive view of Russia's outlooks on national security:

- The National Security Concept of the Russian Federation (2000)
  (Source: Russian Ministry of Foreign Affairs)
- Russia's National Security Strategy (2009)
  (Source: Russian Ministry of Foreign Affairs)

Together, these five documents provide a broad impression of Russian strategic nuclear weapons policy under three differing presidents, respectively Boris Jeltsin, Vladimir Putin and Dmitri Medvedev.

Then, in order to assess the size (quantity) and strength (quality) of the Russian nuclear inventory (2) this research looks into estimates regarding the size, as well as in-depth reports about the quality and development of Russia's nuclear arsenal. In doing so, it uses aggregate data and reports as provided by Hans M. Kristensen and Robert Norris of the Federation of American Scientists; the world's leading experts in estimating the size of global nuclear weapons stockpiles (World Nuclear Weapon Stockpile 2015). Again, estimates are used since, especially over the past decade, definite figures regarding Russia's nuclear arsenal are unavailable to this research. Lastly, in order to analyze the use of threatening nuclear rhetoric by Russian policy makers (3), this research makes use of aggregate data on the making of credible nuclear threats; as expressed by policy makers of nuclear weapons states between 1977 and 2010. The dataset employed by this research defines a credible nuclear threat as:

1. “Observable actions taken, such as increasing nuclear alert levels, the flight- testing of nuclear-capable missiles, or the repositioning of significant military forces capable of employing nuclear weapons to demonstrate resolve during a crisis or in warfare” (Black 2010).
2. “Statements (whether made in public or transmitted through private channels and subsequently disclosed) by high-ranking government officials or their representatives during a crisis or in warfare expressing or indicating a willingness to use nuclear weapons in defense of national interests (Black 2010).

Such explicit threats are not made often, however they persist, even following the end of the Cold War. As they are generally not expressed often, nuclear threats can be regarded a clear indicator of the importance of nuclear weapons to a state’s national security strategy.

3.2 Predictions and how to assess them

The fluctuations in Russia’s nuclear weapons policy, as found by analyzing the three indicators, are used to empirically test the predictions of neorealism, neoliberalism and constructivism. To begin with, the neorealist hypothesis H1 is tested by examining Russia’s relative share of world power in the post-Cold War era, especially in the years leading up to important changes in Russia’s nuclear weapons policy. This assessment is made by analyzing Russian state power in terms of both economic (latent) power and military power. The first is measured by looking into some of the IMF’s basic indicators of economic power, such as real GDP, inflation and the number of people in Russia living below the poverty threshold. The latter is analyzed by looking into the general state of the Russian military following the end of the Cold War.

The predictions of neoliberalism, H2 and H3, are put to the test in two distinct ways. H2 is tested by gauging the extent of Russia’s economic interdependence. This is done by looking into two factors, put forward by the IMF as strong indicators of interdependence: international

trade (the amount of trade, both import and export, between a state and other states) and financial flows between a state and others (Streeten 2001). An increase in these two indicators for Russia signify an increase in its economic interdependence. Figures on both indicators for Russia are available online via the IMF and the World Bank. H3 is tested by analyzing Russia's involvement in – and adherence to – nuclear arms reduction treaties throughout the post-Cold War period. Specifically, Russia's devotion to nuclear regimes is assessed by looking into four significant nuclear arms (reduction) treaties signed and/or ratified by the Russian Federation since 1993, and Russia's compliance regarding them:

- Strategic Arms Reduction Treaty (START I, signed between the Soviet Union and the United States in 1991)
- Strategic Offensive Reductions Treaty (SORT, signed between Russia and the United States in 2002)
- Comprehensive Test Ban Treaty (CTBT, adopted by the UN General Assembly in 1996)
- New START Treaty (signed between the Russian Federation and the US in 2010)

Finally, this research tests the two hypotheses derived from constructivism. Both hypotheses are tested by examining public opinion in Russia. H4 to start with, regarding Russia's normative approach to nuclear weapons, is tested by examining the general public's opinion in Russia regarding nuclear weapons. The data used by this research is derived from polls regarding public opinion on nuclear weapons in Russia, undertaken by a number of independent think tanks. If the way nuclear weapons are perceived in Russia has changed over the past two decades, constructivism holds that this should be reflected accordingly in Russia's nuclear weapons policy. The same goes for H5. This hypothesis is tested by comparing changes in Russia's nuclear weapons policy to changes in the Russian general public's opinion of the United States. This is done by examining quantitative date regarding public opinion of the United States in Russia, as collected by the U.S. think tank Pew Research Center over the past

two decades (Pew Research Center 2015).

In the assessment of both H4 and H5, public opinion is used as a proxy of the thought-process surrounding elite decision-making on nuclear weapons. As true insight in this process is impossible to attain within the constrictions of this research, public opinion is used instead. Public opinion serves as an indicator of the social values and convictions of the Russian people. As policy makers need to take this convictions into account – and are highly likely to have similar convictions themselves - public opinion is a good alternative indicator of the reasoning behind Russia's elite decision-making regarding nuclear weapons.

4 The Evolution of Russia's Nuclear Weapons Policy

4.1 Using Nuclear Weapons according to Russian Policy Documents

Before testing the hypotheses set out before, it is necessary to assess the development of Russia's strategic nuclear weapons policy over the time frame set out for this research. As mentioned earlier, the first indicator of Russia's nuclear weapons policy this research employs is the specific role nuclear weapons play in Russia's official military doctrine. Since the end of the Cold War, Russia has issued three official military doctrines, each detailing Russia's considerations regarding the use of its nuclear weapons arsenal.

The Russian Federation's first-ever official military doctrine, published in 1993, in many ways signified a break from the past. One way this becomes evident is by looking at the document's provisions regarding the use of Russia's nuclear weapons arsenal. In 1982 Leonid Brezhnev, then-leader of the Soviet Union, made the official pledge not to use nuclear weapons as a way of waging war; unless the Soviet Union were to be attacked by an adversary using nuclear weapons first. Despite vastly rising nuclear weapons stockpiles, this no-first-use pledge formed the basis of the Soviet Union's stance regarding nuclear weapons in the final ten years of its existence (source). In the 1993 Military Doctrine, Russian officials formally abandoned Brezhnev's guarantee. The first provision given by the document is that Russia would

exclusively consider the use of nuclear weapons in case of global warfare (The Russian Federation Security Council 1993). Furthermore, the document lists three cases which would give Russia the right to use nuclear weapons. The first case is not that remarkable: as the Soviet Union, Russia would be incentivized to use its nuclear weapons in case of an enemy nuclear attack against it or its allies (The Russian Federation Security Council 1993). The other two cases in which Russia would reserve the right to use nuclear weapons however are more interesting. The 1993 document states that the Russian Federation would be entitled to make use of nuclear weapons, even against certain non-nuclear weapons states, in case of global war leading to:

"a) An armed attack against the Russian Federation, its territory, Armed Forces, other troops, or its allies by any state which is connected by an alliance agreement with a state that does possess nuclear weapons;

b) joint actions by such a state with a state possessing nuclear weapons in the carrying out or in support of any invasion or armed attack upon the Russian Federation, its territory, Armed Forces, other troops, or its allies" (The Russian Federation Security Council 1993).

In essence, these two provisions send a clear signal to non-nuclear weapons states allied with a nuclear weapons state (such as all states party to NATO) not to interfere with Russia's internal affairs. Russia's nuclear weapons strategy according to its first-ever military doctrine thus can be regarded a classic example of dissuasive military strategy; "bolstering deterrence in a period of weakness for Russia's conventional military" (Trenin 2005).

The two subsequent doctrinal policy documents appropriated by the Russian legislation, both issued in 2000, confirmed Russia's inclination to use nuclear weapons first during conflict. The 2000 Military Doctrine expands on the provisions established in the 1993 Doctrine, albeit does so in rather ambiguous terms. It states that Russia:

"(…) reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and (or) its allies, as well as in response to large-scale aggression utilizing conventional weapons in situations critical to the national security of the Russian Federation" (Arms Control Association 2000).

From this statement one can derive that Russia in its 2000 Military Doctrine reserved the right to use nuclear weapons in response to the use of all 'weapons of mass destruction', not just the use of nuclear weapons per se. The 2000 Doctrine however does not define what a situation 'critical to national security', one permitting the deployment of nuclear weapons, actually entails. Similar obscurity is found when analyzing Russia's 2000 National Security Concept, which lists the notion that Russia would employ:

"(…) all the manpower and resources available to it, including nuclear weapons, in the event of need to repulse armed aggression, if all other measures of resolving the crisis situation have been exhausted or proven inefficient" (Russian Ministry of Foreign Affairs 2000).

It remains unclear when exactly it is determined for 'measures of resolving the crisis situation' to be ineffective. As this is nowhere specified in the document, it remains uncertain under what circumstances exactly Russia would opt to use nuclear weapons.

Both documents are not merely an elaboration on the nuclear strategy outlined in 1993, owing to one specific provision in particular, which points to a significant lowering of Russia's nuclear threshold. The 2000 Doctrine distinctly notes that nuclear weapons may be employed by the Russian Federation first during a war, by means of "de-escalating armed conflict" (Arms Control Association 2000). This notion is explained further by two of the main scholarly contributors to studies surrounding Russia's nuclear weapons strategy, first by the Russian military strategist Yury E. Fedorov:

"(…) Russian military planners see limited use of nuclear weapons – either tactical or strategic – as the only way to challenge an enemy by an awful dilemma: either to stop military operations and recognize defeat, or to respond by a nuclear strike, which would be followed by an escalation up to strategic nuclear exchange with catastrophic consequences for all. This tactic is called "de-escalation of armed conflict" by a limited first use of nuclear weapons. In particular, it presumes 'demonstrative strikes' made by a few strategic weapons against targets located in unpopulated areas in the deep rear of the enemy, or a few strikes at the seat of war by tactical nuclear weapons" (Fedorov 2010).

A second elaboration is offered by non-proliferation expert Nikolai Sokov:

"The [2000 Military] doctrine introduced the notion of de-escalation—a strategy envisioning the threat of a limited nuclear strike that would force an opponent to accept a return to the status quo ante. Such a threat is envisioned as deterring the United States and its allies from involvement in conflicts in which Russia has an important stake, and in this sense is essentially defensive. Yet, to be effective, such a threat also must be credible. To that end, all large-scale military exercises that Russia conducted beginning in 2000 featured simulations of limited nuclear strikes" (Sokov 2014).

The concept of using nuclear weapons for de-escalating warfare is complemented by what is detailed in the 2000 National Security Concept, namely that Russia no longer exclusively associates the use of nuclear weapons with global warfare, but also with the more limited concept of regional warfare (Sokov 2003). The move from using strategic nuclear weapons as a 'last resort option' in global warfare to using tactical nuclear weapons as a means of winning (or 'de-escalating') a more limited regional war constitutes a significant lowering of Russia's threshold to use nuclear weapons. After all, starting a nuclear war on the strategic level is an incredibly difficult decision to make: it brings along massive destruction, as well as the likelihood of massive retaliation from the side of the enemy. To engage in tactical nuclear

warfare on the other hand is a much easier decision to make: it too involves massive destruction, yet on a much smaller scale. Something else to consider, in light of the nuclear threshold, is that using nuclear weapons on the tactical level subsequently brings along another danger: that of quick escalation of nuclear warfare from the tactical to the strategic level (Patchen 1988).

All things considered, the 2000 Military Doctrine and accompanying constitute a significant lowering of the threshold for Russia to use nuclear weapons; moving from the use of strategic nuclear weapons as a 'last resort option' to the use of tactical nuclear weapons as a means of winning (or 'de-escalating') a limited war.

Finally, in Russia's 2010 Military Doctrine the role assigned to nuclear weapons is reduced slightly, despite expectations to the contrary (Sokov 2010). In 2009, a spokesman for the body drafting Russia's new military doctrine officially stated that Russia would consider using "nuclear weapons to counter conventional aggression not only in large-scale wars, but also in regional and even local wars. (…) In situations critical for national security we do not rule out the possibility of a preventive nuclear strike" (Patrushev 2009). Such strong language did not make it into the final document. In fact, any reference to the scale of warfare was omitted from the 2010 Doctrine, which reads:

"Russia reserves the right to use nuclear weapons in response to the use of nuclear and other weapons of mass destruction against it and its allies, as well as an aggression against the Russian Federation with the use of conventional weapons if the very existence of the state is under threat" (The School of Russian and Asian Studies 2010).

The criterion that the very existence of Russia as a state needs to be threatened before it considers using its nuclear weapons arsenal seems to point to a narrowing scope for using nuclear weapons, and thus a higher nuclear threshold for Russia. However, on the other hand, Russia's nuclear threshold remains to be the lowest in the world.

To summarize, since the end of the Cold War the role attributed to nuclear weapons in

Russia's official military doctrine has generally become more substantial. Whereas Russia in 1993 considered the use of nuclear weapons as a means of last resort, focusing exclusively on strategic nuclear warfare, in 2000 Russia introduced the concept of using tactical nuclear weapons as a means of winning a limited war, an idea reconfirmed by the 2010 doctrine.

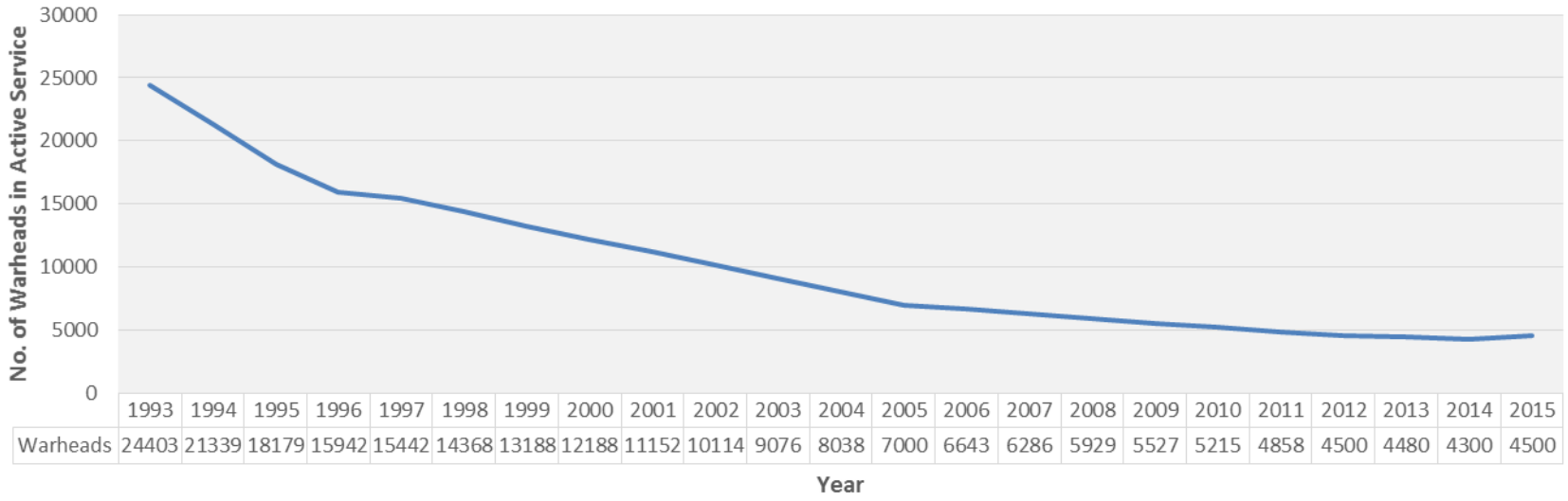
4.2 Assessing the Size and Strength of Russia's Nuclear Arsenal

Besides the role attributed to nuclear weapons, a second indicator of Russia's nuclear weapons policy is Russia's nuclear weapons arsenal itself, more specifically, its respective size (quantity) and strength (quality). First, let us study the estimated size of Russia's nuclear arsenal throughout the post-Cold War era. In general, data regarding the size of nuclear arsenals throughout the world differentiates between three different categories of nuclear warheads, sorted by level of readiness (Arms Control Association 2015):

- Deployed (active service): fully operational warheads, available for immediate use. These weapons are at all times directly connected to a delivery system, such as an ICBM, a SLBM or a designated heavy bomber.
- Stockpiled (active service): fully operational warheads, which are kept in storage. These weapons are assigned for potential use on military delivery vehicles, and are available for direct deployment within several minutes to hours.
- Retired (inactive reserve): nuclear warheads no longer in operational condition, without immediately available delivery systems. These weapons remain intact while awaiting dismantlement, and could theoretically be made ready for use if needed.

This research focuses mainly on the estimated total amount of nuclear warheads Russia has had in active service throughout the post-Cold War era, as clear figures on the exact amount of retired nuclear warheads in Russia's arsenal are not available for every year. Figure 1 illustrates the progression of the size of Russia's active nuclear weapons arsenal in the post-Cold War era.

Figure 1: Estimated Russian Active Nuclear Warhead Inventory (1993-2015)



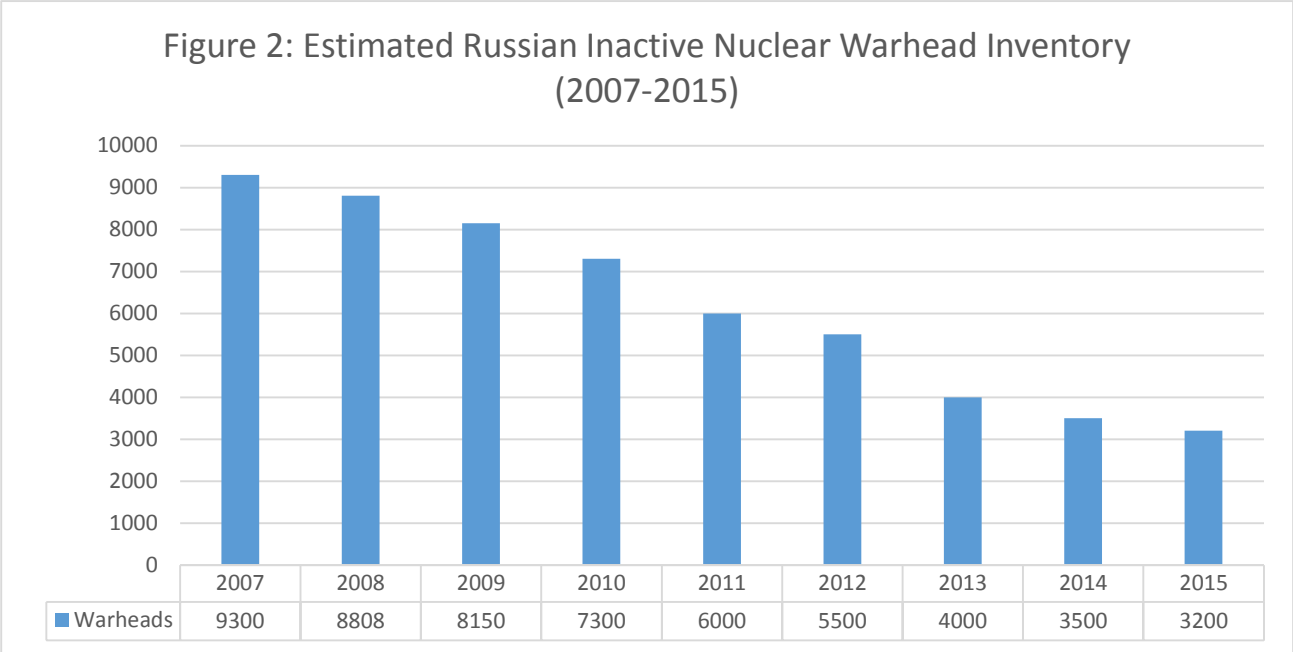
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Warheads	24403	21339	18179	15942	15442	14368	13188	12188	11152	10114	9076	8038	7000	6643	6286	5929	5527	5215	4858	4500	4480	4300	4500

Source: Kristensen (2015)

As figure 1 shows, the estimated size of Russia's active nuclear weapons arsenal – operational warheads either deployed or stockpiled – has continuously declined since 1993; with the exception of 2015. Whereas Russia in 1993 had 24,403 fully operational nuclear warheads at its disposal, this number had declined to 4,300 by 2014, before rising again to an estimated 4,500 nuclear warheads at active disposal in early 2015. Overall, since 1993, the active Russian nuclear weapons arsenal has declined by over 81 percent. However, one should take note of the fact that his development has slowed significantly since the end of 2004: between 1993 and 2004, Russia's active nuclear weapons arsenal declined by just over 67 percent, with an absolute decline of 16,365 nuclear warheads. Between 2004 and 2015, its active nuclear stockpile had decreased further by 'only' 44 percent, amounting to an additional absolute decline of 3,538. Also, since 2012, we can observe there has been no nominal decline in the amount of active nuclear warheads owned by the Russian Federation.

Credible estimates regarding Russia's reserve nuclear weapons arsenal, those warheads awaiting dismantlement, are available from 2007 and onwards. Up until that year, estimates of the total amount of weapons awaiting dismantlement vary greatly per year, sometimes ending up much higher or lower than the year before.[2] Starting in 2007, Kristensen and Norris offer reliable data pertaining to their estimates of Russia's inactive stockpile. As such, estimates regarding Russia's reserve arsenal from this year onwards can be deemed sufficiently reliable for use in this research. Figure 2 lists yearly estimates for the amount of nuclear warheads in Russia's inactive reserve arsenal since 2007. Here too, Russia's commitment to nuclear disarmament is visible. Between 2007 and 2015 Russia dismantled an estimated 6,100 nuclear warheads.

[2] This became clear when studying the yearly reports, and additional comments, on the size and strength of Russia's nuclear weapons arsenal by Kristensen and Norris since 1999. After 2007, these scholars have obtained much more reliable data regarding these figures, derived from, amongst other things, statistics from various arms control treaties.



Source: Kristensen (2015)

This decline was most significant between 2009 and 2013, when Russia dismantled 4,150 of its inoperative warheads. We can safely assume this decline to be a continuation from Russian disarmament efforts during the 1990s and early 2000s. After all, Russia's active nuclear weapons stockpile decreased vastly during these years, and these weapons were first moved into its inactive nuclear arsenal before being dismantled (Kristensen 2015). Thus, generally speaking, the size of Russia's nuclear weapons arsenal has become considerably smaller since the 1990s, a continuous development which lasted up until early 2015; a year marking the first increase in Russia's active nuclear weapons arsenal compared to the preceding year since 1986 (when the Soviet nuclear arsenal peaked at the amount of 40,159 active nuclear warheads) (Kristensen 2015). Additionally, we can derive that the decline in both Russia's active and inactive nuclear warhead inventory has slowed down considerably over the years, both in terms of absolute and relative numbers.

Second, in order to fully understand the dimensions of Russia's nuclear weapons arsenal, its particular strength must be assessed as well. This research employs an assessment scheme of nuclear strength first suggested by theoretical physicist Sydney D. Drell, which uses

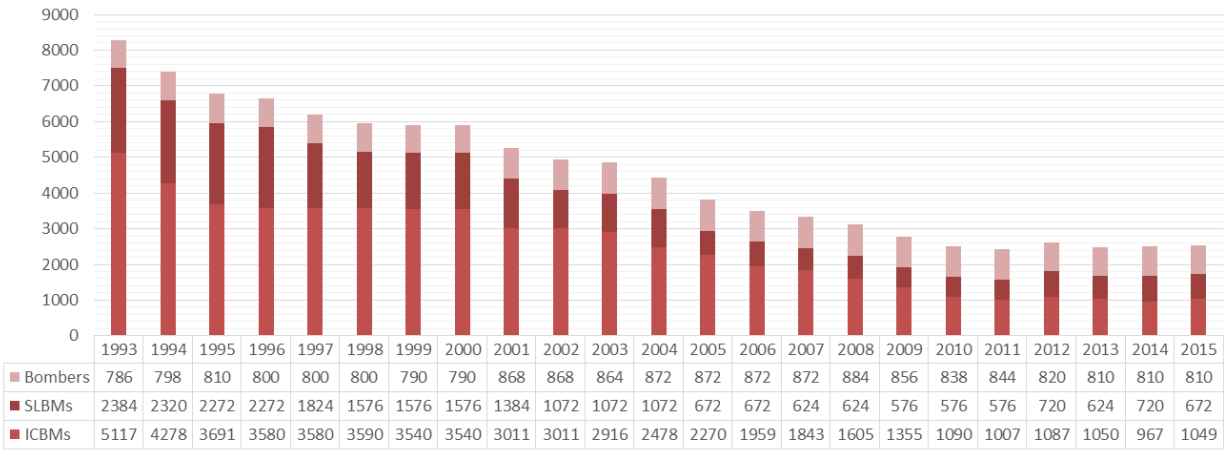
the aggregate number of strategic nuclear launch systems a state owns (SLBMs, ICBMs and primary assigned aircrafts) and the maximum amount of warheads these systems can deliver (Sakharov 1983). The resulting quantitative assessment is reinforced by qualitative information regarding improvements made to Russia's nuclear launchers and their capabilities over time. The way the number of strategic nuclear launchers in Russian hands developed throughout the post-Cold War era can be observed in figure 3. Subsequently, figure 4 displays the total nuclear warhead capacity of these systems per year since 1993.

Figure 3: Estimated Russian Strategic Nuclear Launchers, 1993-2015

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bombers	107	110	113	113	113	113	112	112	78	78	79	78	78	78	78	79	77	75	76	72	72	72	72
SLBMs	520	456	440	440	384	348	348	348	284	232	232	232	192	192	176	176	160	160	160	176	160	176	160
ICBMs	859	782	753	746	746	756	756	756	706	706	680	613	585	549	493	430	383	331	295	322	326	304	311

Source: Natural Resources Defense Council 2015; Kristensen 2015

Figure 4: Estimated Russian Strategic Warhead Loading, 1993-2015



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bombers	786	798	810	800	800	800	790	790	868	868	864	872	872	872	872	884	856	838	844	820	810	810	810
SLBMs	2384	2320	2272	2272	1824	1576	1576	1576	1384	1072	1072	1072	672	672	624	624	576	576	576	720	624	720	672
ICBMs	5117	4278	3691	3580	3580	3590	3540	3540	3011	3011	2916	2478	2270	1959	1843	1605	1355	1090	1007	1087	1050	967	1049

Source: Natural Resources Defense Council 2015; Kristensen 2015

The information provided by a quantitative assessment of Russia's nuclear strength provides us with three particular notions, which together paint the image of a general decline in Russia's nuclear strength in the post-Cold War era.

- Russia's strategic nuclear capabilities have generally declined since 1993. This is particularly noticeable when looking at the declining amount of both ICMB and SLBM systems over time, as well as that of the warheads associated with them.
- Most of this decline took place between 2001 and 2010
- Since 2010, Russia's strategic nuclear capabilities in terms of warheads have increased, and the decline in terms of launchers leveled off completely.

On the other hand, an assessment of Russia's nuclear strength in qualitative term augments the image painted above. In the early 1990s, Russia continued a process already underway in the Soviet Union during the 1980s; the process of disbanding what it considered excessive amounts of strategic nuclear launchers. This can be traced back in the graphs above; in 1994 and 1995, the total amount of strategic warheads Russia could deliver declined by over 1,400, a move which was already scheduled to happen under Soviet rule. We can observe that following this scheduled move, between 1996 and 2000, the amount of deployed strategic nuclear warhead capacity discarded by Russia already becomes significantly lower. In this specific time period, only the amount of Russian SLBMs and their associated warhead capacity dropped considerably. This is owed to the decommissioning of three aging Typhoon-class ballistic missile submarines, which were approaching the end of their service life (Podvig 2011). While Russia was dismantling parts of its swiftly aging nuclear arsenal, which it inherited from the Soviet Union, another development took place. The Russian general staff in the late 1990s laid out general directions for vastly modernizing Russia's deployed strategic nuclear weapon launchers (Podvig 2011).

These directions were not put into action until the 2000s. Between 2000 and 2010, Russia's strategic nuclear capabilities again declined in numbers, even more than in the 1990s. On the one hand, this is owed to Russia abiding to the rules laid out in the START I treaty it signed with the US. The treaty put substantial restrictions on the total number of strategic nuclear missile launchers Russia was permitted to deploy (NTI 2011). On the other, even after dropping below START I mandated limits, Russia continued to reduce its strategic nuclear capabilities.

However, there is more to the strength of Russia's nuclear arsenal than mere numbers. The strength (or quality) of Russia's nuclear arsenal is also defined by the state of its launchers. In the late 1990s, Russia made a start with implementing the directives for modernization of its strategic nuclear launchers it laid out in the late 1990s. While facing a decline in quantity, Russia intended to significantly upgrade the quality of its nuclear launch capabilities. It did so, yet only to a small extent. Russian modernization efforts started off well. From 1999 until 2002 in particular, Russia decommissioned more and more old and run-down Soviet nuclear launchers, while simultaneously replacing a number of its ICMBs with the newly-developed RT-2PM2 Topol-M missile system. It furthermore started the long-term upgrade of two of its existing ballistic missile submarines and their accompanying SLBMs, and invested billions of rubles into research and development programs (Kristensen 2015). However, over time, the Russian commitment to modernization seemed to fade. Between 2003 and 2007, the progress of Russia's modernization programs stalled (Podvig 2011). As funding towards modernization efforts was reduced considerably, this led to the service lives of nuclear missiles inherited from the Soviet Union being extended by factors of two to even three (Miasnikov 2015).

Between 2007 and early 2010, no additional new ICMBs and SLBMs came into Russian service; while the total number of nuclear launchers in active Russian service continued to

decline. However, in 2008 Russia reinvigorated its commitment to the modernization of its strategic nuclear capabilities, announcing the allocation of more resources to its nuclear forces than ever before (Podvig 2011). Then, in 2010, the Russian government announced additional research and development programs, as well once more expressing its desire to update and recapitalize its entire arsenal of strategic nuclear weapons and delivery systems, in order to counter the retirement of its aging Soviet-era nuclear capabilities (NTI 2015a). Additionally, that same year, a new Russian ICBM came into service, the state of the art RS-24 Yars, capable of carrying up to ten nuclear warheads and evading the vast majority of existing anti-ballistic missile systems (NTI 2015a). This revival of Russian nuclear strength continues until today. In 2013, a new SLBM was employed by Russia, marking the start of the full modernization of Russia's SLBM arsenal. In 2014, Russia began to deploy upgraded versions of its two main nuclear bombers, the Tupolev TU-160M and TU-95MS. Subsequently, in 2015, the Russian military announced that yet another new Russian ICBM, the RS-28, would become operational from 2016. By comparison: the only ICBM currently deployed by the United States entered service in 1970 (George C. Marshall Institute 2015).

Thus, when qualitatively assessing the strength of Russia's nuclear arsenal, it becomes clear that a decrease in the amount of strategic nuclear weapons does not necessarily mean a reduction in its nuclear strength. All things considered, this thesis argues first that during the 1990s Russian nuclear weapons strength declined: the amount of strategic nuclear launchers and warheads deployed by Russia over this time period declined vastly, with no significant modernization programmes being underway whatsoever. Secondly, in the early 2000s (2000 up until roughly 2003) Russia's nuclear weapons strength increased: while continuing to disband its aging Soviet nuclear heritance, the Russian government invested in the development of new and the refurbishing of its old strategic nuclear warheads and launchers. Thirdly, approximately between 2003 and early 2008, the strength of Russia's

nuclear weapons arsenal decreased again: Russia continued dismantling its old strategic nuclear weapons and launchers, while spending less on its nuclear modernization. Finally, from 2008 onwards Russia's nuclear strength has increased significantly. Not only has Russia truly dedicated itself to the modernization of its strategic nuclear weapon capabilities, its strategic launcher capacity has increased as well. Additionally, since 2010, the decline in the total amount of warheads Russia could conceivably deliver levelled off.

4.3 Expressing Nuclear Threats: All but Common?

The third and final indicator of Russia's nuclear weapons policy this thesis employs is the making of nuclear threats by Russian government officials. Between 1993 and 2015, representatives of the Russian government have made a total of five distinct statements expressing a willingness to use nuclear weapons in defense of national interest; all against NATO or one of its members in particular. The first such statement was made in April 1999 by then-president Boris Yeltsin. In response to the NATO bombing of Serbia, Yeltsin issued the following official statement:

"I told NATO, the Americans, the Germans: Don't push us towards military action. Otherwise, there will be a European war for sure, and possibly world war. (…) Our nuclear forces (…) remain a key element in the country's strategy for ensuring national security" (Yeltsin 1999).

It then lasted quite some time until Russia made new nuclear threats against other states. In June 2007, Russian president Vladimir Putin responded to the prospective deployment of US ballistic missile systems in Eastern Europe:

"It is obvious that if part of the strategic nuclear potential of the United States is located in Europe, and according to our military experts will be threatening us, we will have to respond. (…) What kind of steps are we going to take in response? Of course, we are going to get new targets in Europe" (Putin, cited in Black 2010).

In 2008, high-ranking Russian general Anatoly Nogovitsyn responded to the potential deployment of NATO missiles in Eastern Europe as well, targeting Poland in particular:

"By hosting these [missiles], Poland is making itself a target. This is 100 per cent certain. It becomes a target for attack. Such targets are destroyed as a first priority." (Nogovitsyn, cited in Black 2010).

Then, in 2012, the chief of the Russian general staff Nikolai Makarov stated:

"We are certainly not planning to fight against the whole of NATO, but if there is a threat to the integrity of the Russian Federation, we have the right to use nuclear weapons, and we will." (Makarov, cited in NTI 2012).

Finally, in 2015, the Russian ambassador to Denmark, Mikhail Vanin threatened Denmark by publicly stating:

"I do not think that the Danes fully understand the consequences if Denmark joins the US-led missile defence shield. If that happens, Danish warships become targets for Russian nuclear missiles" (Vanin, cited in Withnall 2015).

All in all, Russia made five distinct nuclear threats between 1993 and 2015. What strikes immediately is that four out of five nuclear threats were made between 2007 and 2015, signifying a large increase in the use of threatening nuclear rhetoric by Russian officials.

4.4 Case Summary

Russia's nuclear weapons policy has changed continuously throughout the post-Cold War era, with the importance of nuclear weapons to its national security strategy shifting roughly every five years. Starting off in 1993, Russia established a relatively low nuclear threshold, embraced the decision to vastly decrease the strength (quality) and size (quantity) of its nuclear weapons arsenal and decided to refrain from making any nuclear threats for the next five years. In other

words, Russia considered nuclear weapons to be much less important to its national security strategy than during Soviet times. This lasted until roughly 1997. From 1997 until 2002, nuclear weapons became much more important to Russia's national security strategy: Russia made one major nuclear threat, directed specifically against NATO. At the turn of the century, it significantly lowered its nuclear threshold – turning it into arguably the lowest nuclear threshold in the world. It furthermore decided to increase the strength of its nuclear weapons arsenal by means of modernization efforts.

Between 2003 and early 2008, nuclear weapons became less important to Russia's national security strategy again: Russia made one nuclear threat and left its nuclear threshold as it was. It however decided to cut funding to its prime nuclear weapons modernization programmes, all the while the size of its nuclear arsenal continued to decline. Thus, the overall strength and size of its nuclear arsenal decreased. From 2008 until present, nuclear weapons became more important again to Russia: the country recommitted itself to its low nuclear threshold, and made three additional nuclear threats. Moreover, Russia decided to increase the strength and size of its nuclear arsenal. Reductions to its nuclear arsenal's size were slowly brought to a standstill, resulting in the first overall increase in Russia's active nuclear warhead inventory since the end of the Cold War to occur in 2015. The decreasing strength, or quality, of its nuclear launch capabilities was brought to a halt too. Russia since 2008 had revived its nuclear modernization efforts, resulting in the deployment of a new ICBM and SLBM. It additionally deployed upgraded versions of its strategic bombers, and started additional long-term nuclear research and development programs.

5 Putting Expectations to the Test

5.1 H1: Power Politics

Now that we know the exact development of Russia's nuclear weapons policy in the post-Cold War era, we can turn our attention to assessing the predictions as posited by our theoretical models. First, let us look into the hypothesis posited by neorealism:

H1: If Russia's relative share of world power declines, it should decide to increase the strength and size of its nuclear weapons arsenal, to lower its threshold for using nuclear weapons and to make more nuclear threats versus other countries; as well as the other way around.

In order to verify whether this expectation is met or not, one needs to know how Russia's relative share of world power changed over time, particularly in the years leading up to important shifts in Russia's nuclear weapons policy. State power in international relations discourse is generally defined as a combination of both economic (latent) power and military power. Having said that, between 1993 and present, five alternating developments concerning Russia's power position in the world can be distinguished.

Firstly, over the course of the 1990s, Russia's relative share of world power increasingly declined. Following the collapse of the Soviet Union, the Russian economy faltered into a deep depression. During the 1990s, Russia was in the process of implementing radical economic reforms, with the goal of turning the country's centrally planned economy into a fully integrated market economy. These reforms, which included large-scale privatization efforts that were plagued by corruption, colloquially became known as economic 'shock therapy'. And a shock it was. Between 1993 and 1999, real GDP in Russia – used by the IMF as a basic measure of economic power – had fallen by forty percent, reaching an all-time low in 1999. This happened in the wake of something even more extraordinary: just a year earlier, in 1998, the Russian government had defaulted on its debt. Subsequently, inflation had skyrocketed, as did the percentage of people living in poverty and the country's level of economic inequality (World

Bank 2015). Not only Russia's economic power, but also its military power diminished during the 1990s. In this period of time, the Russian military faced immense structural problems, owing to a general disorganized state of affairs due to the collapse of the Soviet Union. Together with the aforementioned economic problems, this caused a rapid decline in the size and strength of Russia's military. Russia decided to considerably reduce the size of its military forces: from just over two million in total military manpower in 1993 to just over one million in 2000 (De Haas 2011). The quality of the forces remaining was greatly reduced too: vast amounts of equipment and facilities were no longer being maintained or were simply abandoned, military training and education was lacking generally and living conditions in the Russian military were nothing short of miserable, both amongst professional and conscript forces (De Haas 2011). It prompted then-prime minister Vladimir Putin to proclaim the combat readiness of Russia's military to be "critically low" (Traynor 2000).

The combined decline in military and economic power led to Russia in 1999, in terms of power, being worse off than in 1993. Compared to other states, Russia lost a great amount of power, and so too its relative share of world power increasingly declined between 1993 and 1999. According to neorealism, this should be reflected in Russia's decision-making surrounding nuclear weapons policy: Russia would be expected to adhere a more important role to nuclear weapons. From our case study, we can see that this is precisely what happened following Russia's decline in power. In 2000, less than a year after Russia's GDP hit record lows, Russia presented its new military doctrine, by which it significantly lowered its threshold for using nuclear weapons. The overall size of Russia's nuclear weapons arsenal, as well as its strategic nuclear capabilities, diminished further after 1999. However, its strength increased, due to Russia's initiation of modernization programs regarding its nuclear weapons arsenal and strategic launchers. Finally Russia, for the first time in the post-Cold War era, in 1997 made a distinct nuclear threat, directed specifically against NATO and its member states.`

Secondly, from 2000 until 2008, Russia's economic power increased significantly, profiting in particular from rising commodity prices. Russia's GDP grew extensively, exceeding growth rates of seven to eight percent. Poverty decreased sharply, and income inequality declined too, albeit slightly (World Bank 2015). Russia's military strength however did not show similar improvements. The amount of Russian military personnel decreased with an additional 100,000 men between roughly 2000 and 2008. Its equipment remained to be in dreadful shape: between 2000 and 2004, the Russian military only received fifteen new tanks altogether – on a total number of 23,000 tanks (De Haas 2011). In around 2006, the share of modern military hardware was less than twenty percent of its total amount of military equipment (De Haas 2011). Altogether, Russia's share of world power did increase between roughly 2000 and 2008, albeit only in terms of its latent power: its rapid and vast economic recovery just outweighing the still worrisome condition of its military forces (Stent 2014).

The growth of Russia's (economic) power is only modestly reflected in Russia's nuclear weapons policy. In the early 2000s, when Russia's power was only just beginning to increase, Russia was still immersed in improving the strength of its strategic nuclear forces. It also had just published its new threshold for using nuclear weapons. However, as Russia's (economic) power grew, so it diverted less attention to its nuclear weapons arsenal. Approximately halfway through the 2000s, at the time Russia's post-Cold War economic development began to reach its height (World Bank 2015), Russia's nuclear weapons modernization progress began to stall, as Russia increasingly diverted less resources towards its modernization programs. In the meantime, the Russian Federation continued to dismantle vast amounts of its (older) nuclear weapons stockpiles, as well as an increased amount of strategic launch systems. Thus, Russia's nuclear strength in the period roughly between 2000 and 2010 increasingly began to fall. However, contrary to neorealism's expectations, Russia did make two significant nuclear threats in this period of time: one against European members of NATO in general in June 2007,

and one specifically directed against Poland in August 2008. Additionally, Russia did not issue any changes to the role assigned to nuclear weapons in its nuclear doctrine, its nuclear threshold remaining to be low.

Thirdly, from 2008 until 2010, Russia's overall power position declined again, mostly due to a decline in its latent power. This was brought about by a short but intense economic recession, which hit Russia from late 2008 until halfway through 2009. Owing to falling oil prices and concerns surrounding Russia's 2008 war with Georgia over South-Ossetia, the Russian economy contracted by almost eight percent in 2009. GDP fell by four percent, and the Russian government had to invest heavily to revive its economy (World Bank 2015). Russia's military power remained roughly the same between 2008 and 2010. The state of its equipment did not improve significantly, yet efforts were made in order to reorganize the Russian military. This military reform effort started in 2008, in order to address the Russian military's weaknesses which came to light during the 2008 South-Ossetia war (Russel 2015). It involved significant reductions in the size of Russia's military, in order to improve the military's efficiency altogether (De Haas 2011). The reforms were completed in 2012, and only from then on could Russia reap the full organizational benefits of this reform (Russel 2015).

Russia's declining relative share of world power between 2008 and 2010 is reflected in Russia's nuclear weapons policy. In 2010, Russia reconfirmed its commitment to the world's lowest nuclear threshold. From 2010 onwards, the strength of its nuclear arsenal increased, and its size no longer decreased: a first since the beginning of our case study. Additionally, Russia made one nuclear threat, in 2008.

Fourthly, from 2010 until early 2014, Russia's power position increased significantly (Stent 2014). During this period, the Russia economy recovered from the 2008-2009 financial crisis. What is more, in 2011 and 2012 Russia's GDP hit record heights (World Bank 2015). Also, from 2010 the strength of the Russian armed forces finally started to increase, mostly due

to improvements made to the military's equipment, facilities and logistics (De Haas 2011). Also, as touched upon earlier, from 2012 the Russian military could benefit fully from the improvements to its organizational structure (Russel 2015).

The growth of Russia's military and economic power between 2010 and 2014 has not been reflected in its nuclear weapons policy at all. The preceding developments associated with Russia's policy only seem to continue between 2010 and 2014. During this period of time, Russia once more made a nuclear threat, and continued to adhere to its low nuclear threshold. Aditionally, the decline in the size and strength of its nuclear weapons arsenal slowly came to a hold, something which neorealism does not account for.

Fifthly and finally, after early 2014, Russia's relative share of world power started to decline again. From that year, the Russian economy started to decline, amidst falling oil prices and the economic sanctions Russia received in the wake of its military involvement in Ukraine. These economic sanctions – imposed on Russia by primarily the United States and the EU following the Russian military intervention in Ukraine during 2014 and 2015 – have led to the depreciation of the Russian ruble (Oxenstierna 2015). Simultaneously, sharply falling oil prices have led to an increased fiscal deficit for the Russian government. The deprecation of the Russian ruble, brought about by the economic sanctions imposed on Russia, has created a capital flight from Russia, as international investors have been selling off their assets in Russia. Additionally, Russia's international reserves have deteriorated, as has its GDP (Oxenstierna 2015). Russia's military strength has remained roughly the same since 2014. Although more extensive reform and modernization programs for the military as a whole are underway, these have not yet had a profound effect on the effectiveness of the Russian armed forces.

The decline in Russia's power since 2014 has been reflected in Russia's nuclear weapons policy. Since 2014, Russia has made another distinct nuclear threat. It has, for the first time since the end of the Cold War, increased the size of its active nuclear weapons arsenal.

The strength (quality) of its nuclear arsenal too continued to increase, as more and more new nuclear launch systems came into service and new nuclear research and development projects were initiated.

From the foregoing, one can infer that some of neorealism's expectations are met, while others are not. In particular, three notions stand out:

1. As neorealism would expect, whenever Russia's relative share of world power declined, it generally would ascribe more importance to its nuclear weapons: (re)committing itself to a low nuclear threshold, making nuclear threats and increasing the strength of its nuclear arsenal.
2. Contrary to neorealism's expectations, whenever Russia's relative share of world power rose, this did not seem to have such a profound effect on the importance of its nuclear weapons to its national security strategy: True, the rate at which Russia was disbanding its nuclear arsenal increased as Russia's power rose between 2000 and 2008. However, the making of nuclear threats continued and Russia's threshold for using nuclear weapons did not decrease. The same goes for Russia's rising power in the early 2010s, which has not been reflected by any changes in our three indicators at all.
3. The size of Russia's nuclear arsenal seems to move entirely independent from changes in Russian power. Increasing or decreasing power, the size of Russia's nuclear arsenal continuously decreased throughout the post-Cold War era; with the exception of 2015.

From these notions, we can infer that the neorealist hypothesis (H1) at best only partially explains the progression of Russia's nuclear weapons policy in the post-Cold War era. Neorealist thinking does much better in explaining why nuclear weapons would become more important to Russia's national security strategy, than in explaining why these weapons would become less important to it.

5.2 H2 and H3: Interdependence and International Regimes

For neoliberalism, two distinct hypotheses are put to the test: Firstly, H2 is tested:

H2: The greater the extent of Russia's economic dependence on other states, the more Russia should decide to decrease the strength and size of its nuclear weapons arsenal, to increase its threshold for using nuclear weapons and to make less nuclear threats versus other countries.

To test this hypothesis, one must measure the extent of Russia's economic interdependence throughout the post-Cold War era. This research makes use of two indicators of economic interdependence; the amount of international trade Russia is involved in and capital flows between Russia and other countries.

First we look at international trade. Between 1993 and 2000, Russian imports and exports were relatively low. The highest annual monthly import value rose from roughly 4 billion USD in 1993 to around 7.4 billion USD in 1998. This occurred just before Russia's 1998 recession hit in full force, resulting in a significant drop in Russian imports and exports (Trading Economics 2015a, 2015b). The highest monthly export value grew from roughly 5 billion USD in 1993 to about 9 billion USD in 1998. After recovering from defaulting on its debt in 1998, between 2000 and 2008 Russian trade really took off. Exports and imports continuously rose throughout this time period, a development which accelerated over time. Russian imports grew, from achieving a peak monthly value of just under 4 billion USD in 2000 to achieving a top monthly value of 28 billion USD in 2008. Figures for Russian export show a similar pattern: between 2000 and 2008 Russian exports grew from a highest monthly value of 9.5 billion USD to a top monthly value of 47 billion USD (Trading Economics 2015a, 2015b). However, again Russia was hit by an economic crisis, and again trade faltered: In 2009, Russian exports were not even half those of 2008, amounting to approximately 18 billion USD monthly. Imports fell to just under 10 billion USD monthly. As the Russian economy as a whole recovered quickly from the 2008 recession, so did Russia's international trade, with exports and imports reaching

all-time highs in December 2011 (respectively 50.2 billion and 30.2 billion USD) and December 2013 (50 billion USD and 33 billion USD) (Trading Economics 2015a, 2015b). Finally, in the wake of economic sanctions by Western countries, Russia in 2015 witnessed significant drops in its exports and imports. The highest monthly import value that year amounted to a mere 12.5 billion USD, whereas the highest monthly import value for 2015 compared to 2014 decreased to 25 billion USD (Trading Economics 2015a, 2015b).

Then, let us turn to the development of international capital flows between Russia and the rest of the world. Figures related to Russia's international monetary flows are available from 2005 onwards. From the beginning of 2005 until the end of 2014, Russia on an annual basis had a negative capital flow. This means that more money was moving from Russia (with the purpose of investment, production or trade) than flowing towards it. This is not necessarily a negative thing: it shows Russia's commitment to international trade, as well as its capability to spend a lot of financial resources on foreign investment and foreign production. The flow of capital from Russia almost continuously increased between 2005 and 2014, with the exception of 2013. Russian investors, in other words, began investing more money abroad than ever before (Trading Economics 2015c). In 2015, Russia for the first time since 2005 had an overall financial account surplus (Trading Economics 2015c). This occurred mainly due to the economic sanctions imposed by Western states on Russia, as these sanctions resulted in a more careful spending approach by the Russian central bank, as well as lower confidence amongst Russian private investors (Oxenstierna 2015).

Taken together, both indicators show that Russia's level of economic interdependence has increased significantly since the end of the Cold War. When exempting the time periods surrounding Russia's 1998 financial crisis, its 2009/2009 recession and its 2014-2015 economic crisis as outliers, the amount of Russian imports and exports increasingly grew throughout the post-Cold War era. Likewise, from 2005 until 2014 Russia had a continuously increasing

negative capital flow. Russian investors annually spend more money abroad than ever before. In other words, our indicators show that Russia's economic interdependence has continuously – and progressively more – increased between 1993 and 2014. It was only during 2015 that the extent to which Russia was economically interdependent decreased again.

The question then is whether Russia's nuclear weapons policy is consistent with this observation in a way neoliberalists would expect it to be. In brief, this is not the case. Although the total size of Russia's nuclear weapons arsenal continuously declined between 1993 and 2014, in line with Russia's increasing level of economic interdependence, there are other parts of said policy which our second hypothesis does not account for. While Russia's degree of economic interdependence has continuously increased, Russia in the meantime has not increased its threshold for using nuclear weapons. Neither has it made any less nuclear threats against other states. In fact, three of the five nuclear threats Russia made in the post-Cold War era took place between 2007 and 2014, when Russia's economic interdependence was booming. Finally, Russia's rising level of economic interdependence does not explain the increase in strength of Russia's nuclear arsenal taking place from 2015.

Secondly, we turn to our assessment of H3:

H3: As Russia's envelopment in the international nuclear regime becomes more extensive, the strength and size of its nuclear weapons arsenal should decrease, its threshold for using nuclear weapons should increase and the less it should make nuclear threats versus other states.

In order to test this hypothesis this research analyzes the Russian involvement in – and adherence to – nuclear arms reduction treaties from the end of the Cold War. As stated earlier, only if Russia would have truly adhered to these treaties, a significant effect on Russia's nuclear weapons policy is to be expected. Four significant treaties considering nuclear arms reductions and arms restrictions are looked into. Three of these (START I, SORT and the New START treaty) are bilateral strategic arms reductions treaties signed between the US and Russia. The

fourth treaty under examination is the multilateral CTBT.

First, we turn to Russia's adherence to the START I treaty. START I, the first treaty to provide for a deep reduction in the US and Russian nuclear weapons stockpiles, was signed in July 1991, between the Soviet Union and the US. Less than half a year later the Soviet Union dissolved and Russia, together with Belarus, Ukraine and Kazakhstan became members to the treaty instead. The treaty entered into force on December 5th 1994, and expired December 5th 2009 (NTI 2015b). For Russia and the US, the treaty established an aggregate limit of:

- 1,600 deployed ICBMs, SLBMs and heavy bombers
- 6,000 deployed active warheads (fully operational warheads, available for immediate use) (NTI 2015b)

These limits had to be attained within seven years of the treaty entering into force. Warheads removed from deployed service were to be dismantled and subsequently destroyed. Additionally, START I contains extensive verification and transparency provisions. Through data sharing, on-site inspections and monitoring missions, both states were permitted to check one another's compliance with the treaty (NTI 2015b).

On December 5th 2001, seven years after START I entered into force, the United States and Russia jointly announced that both parties had fulfilled their obligations under START I. Specifically, Russia stated that it had reduced its deployed strategic delivery vehicles to a total of 1136, with 5518 warheads in total connected to them, statistics which were subsequently verified by the United States (NTI 2015b). According to a 2010 report by the US Department of State, Russia between December 2001 and December 2009 consistently lived up to the limits set under START I. The report however did raise a number of concerns over Russia's compliance with the treaty when it came to verification (US Department of State 2010). An issue highlighted in the report was the regular Russian practice of temporarily removing road-mobile ICBM launchers from a nuclear production facility at Volgograd ahead of US

inspections. As revealed by US satellite footage, these systems, would return to the facility only following US. Nevertheless, even accounting for such practices, Russia still adhered to the limits set under START I inspections (US Department of State 2010). This corresponds to the estimates regarding Russian strategic launchers used earlier in this research. All in all, Russia thus complied with the obligations set under the START I treaty.

Secondly, we examine Russia's compliance with the CTBT, as adopted by the UN General Assembly in 1996. The CTBT is a multilateral treaty, by which states party to it agree on a total ban on nuclear explosions, both for civilian and military purposes. Although the CTBT has not yet entered into force (due to a number of particular states not having ratified the treaty), states can *de facto* comply with the CTBT, by adhering to its main principles:

- Each State Party undertakes not to carry out any nuclear weapons test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control.
- Each State Party undertakes, furthermore, to refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion (CTBTO 1996).

Russia, having signed and ratified the treaty, has up until now fully obliged to these provisions.

Thirdly, Russia's compliance with SORT is examined. Russia and the US signed SORT in 2002, aiming to further reduce the sizes of their respective nuclear arsenals. Under SORT, which entered into force in 2003, it was mandated that both Russia and the US would further reduce their respective number of deployed nuclear warheads to between 1,700 and 2,200 by December 31st 2012. SORT however lacked provisions regarding verification and compliance, relying solely on the START I provisions regarding these matters. Furthermore, arsenal reductions made under SORT's premises were not mandatory to be permanent. Russia or the US could thus theoretically place weapons in storage, only to redeploy them later on (NTI

2011). Thus, one can only attempt to verify whether or not Russia complied with the SORT treaty by looking – again – into estimates regarding Russia's arsenal of nuclear warheads. Kristensen and Norris in 2012 estimated the total amount of nuclear warheads operationally deployed by Russia to be, at minimum, 2,430 (Kristensen 2012). Using this number as a reference, it becomes clear that Russia did not abide to the rules laid out under SORT.

Fourthly, the assessment of Russia's obedience to New START. This treaty, which entered into force on February 5th 2011, replaces the SORT treaty. It establishes the following limits to the deployed active nuclear arsenals of Russia and the United States, limits which need to be achieved before February 5th 2018:

- 700 deployed ICBMs, SLBMs and heavy bombers
- 1,550 deployed active warheads (fully operational warheads, available for immediate use) (NTI 2015b)

Russia's compliance with New START cannot yet be measured in full, as the deadline for reaching the targets above has not yet passed. However, one can assess whether or not Russia is moving towards reaching the limits specified under New START. As mentioned earlier, in 2012 Russia was estimated to have a minimum of 2,430 operationally deployed warheads. In 2015, this number had dropped to 1,780. Additionally, the total amount of strategic launchers Russia deploys has been under 700 already since 2007 (Natural Resources Defense Council 2015). However, Russia is in the process of developing new nuclear weapons, as well as launch systems capable of carrying more nuclear warheads than any of Russia's current strategic launchers. Also, when compared to 2014, Russia had approximately 200 more warheads in active service (both deployed and in storage) than in 2014. Such notions raise questions surrounding Russia's commitment to the obligations laid out under New START (Kristensen 2015). So, despite Russia moving towards the limits set under New START, recent developments have cast a shadow over its decline in nuclear warheads and launch systems.

Russia has thus complied fully with the nuclear treaties it signed during the 1990s (START I, CTBT), yet has not (yet) complied with the treaties it signed following 2000 (SORT, New START). As Russia's envelopment in the nuclear regime has risen over time (as it became member to more of the regime's treaties), neoliberalism would expect that nuclear weapons would become less important to Russia's security strategy. This however has not been the case continuously since 1993. Only the size of Russia's active nuclear arsenal continuously declined since 1993 (with the exception of 2015). The other factors however show changing results, inconsistent with Russia's increasing envelopment in the international nuclear regime.

The neoliberal expectations give us two comparable results: apart from correlating with the quantity of Russia's active nuclear arsenal and strategic launch systems, it can be inferred that economic interdependence and Russia's envelopment in the international nuclear regime do not have a distinguishable effect on Russian nuclear weapons policy as a whole. Changes in the quality of the Russian arsenal, in the amount of nuclear threats made by its officials and changes to its nuclear threshold do not follow the developments taking place in terms of economic interdependence and Russia's envelopment in the international nuclear regime.

5.3 H4 and H5: Norms and Perception

After examining the hypotheses posited by neorealism and neoliberalism, it is time to turn our attention to those suggested by constructivism. First, we examine the idea concerning normative influence on Russian nuclear weapons policy:

H4: If certain norms, such as the non-use of nuclear weapons, become more predominant in the Russian society, said development should be reflected in Russia's decision-making surrounding its nuclear weapons policy.

As stipulated earlier, the influence of norms on state behavior when it comes to nuclear weapons can be extensive. When it comes to testing the above hypothesis, it is first necessary to know

which norms surrounding nuclear weapons are prevalent in Russia. For that, we have to turn to research surrounding public opinion in Russia concerning nuclear weapons.

There has not been much statistical research surrounding nuclear weapons in Russia and its general public's opinion regarding these weapons. Two major studies exist, one undertaken in 2000, and one undertaken in 2007. The 2000 survey was undertaken by an independent Russian polling company employed by the Russian PIR Center (Center for Policy Studies in Russia), questioning a total of 1,500 people in 56 locations throughout the Russian Federation (Orlov 2000). The survey found the following sentiments related to nuclear weapons amongst the survey respondents:

- 76 percent of Russians believed the world would become less stable if more countries had nuclear weapons.
- 55 percent of the Russian general public was in favor of the reductions proposed under START-II; 25 percent was against.[3]
- Only 8 percent of Russians supported a buildup of Russian strategic nuclear forces, in response to the US building a national missile defense system.
- At the same time, 76 percent of respondents supported the phrase that for Russia "nuclear weapons play a vital role in providing national security" (Orlov 2000).
- 32 percent of Russians felt that Russia should have as many nuclear weapons as the US; 26 percent even supported the idea of Russia possessing more nuclear weapons than its former Cold War adversary (Orlov 2000).

From the above, we can take that Russians in 2000 generally valued the idea of nonproliferation, yet also deemed nuclear weapons necessary in providing for Russia's national security. At the

[3] The Russian Duma ratified START-II in April 2000. However, following the US withdrawal from the Anti-Ballistic Missile Treaty in 2002, Russia withdrew from START II, leading to the latter never entering into force.

same time, the idea of Russia obtaining more nuclear weapons was met with widespread aversion amongst Russian citizens, in particular amongst senior citizens (Orlov 2000).

The 2007 survey was undertaken by the University of Maryland's Center for International and Security Studies (CISSM), and fielded by the Moscow-based Levada Center. It was conducted with a nationwide sample of 1,601 respondents (Kull et al. 2007). The following notions came to light following the survey:

- 65 percent of respondents approved of the US-Russian agreement to reduce their active nuclear weapons arsenal under SORT-mandated limits (2000 in total).
- 58 percent of Russians would favor reducing the active nuclear stockpiles of both the US and Russia to a number significantly lower than 2000.
- 53 percent of the respondents would agree to cutting Russian and US nuclear stockpiles to 400 active nuclear warheads.
- 67 percent of Russians supports the idea that eventually all nuclear weapons should be eliminated, as stipulated in the NPT (Kull et al. 2007).

As in 2000, Russians in 2007 valued the nonproliferation regime, as can be derived from their general support of the NPT. The other interesting finding is that most Russians in 2007 were in favor of (deep) reductions to the Russian active nuclear arsenal, even more so than in 2000. It must be noted here that the vast majority of respondents in favor of such deep reductions would only be in favor of said decline if the US arsenal was set to decline under the same limits as set for the Russian arsenal (Kull et al. 2007).

From the foregoing, one can infer that the majority of the Russian public adheres to one major norm surrounding nuclear weapons in Russia. Almost two-thirds of the Russian public supports diminishing the total amount of active Russian nuclear warheads. Likewise, two-thirds of the Russian public is in favor of the idea that eventually all nuclear weapons should be

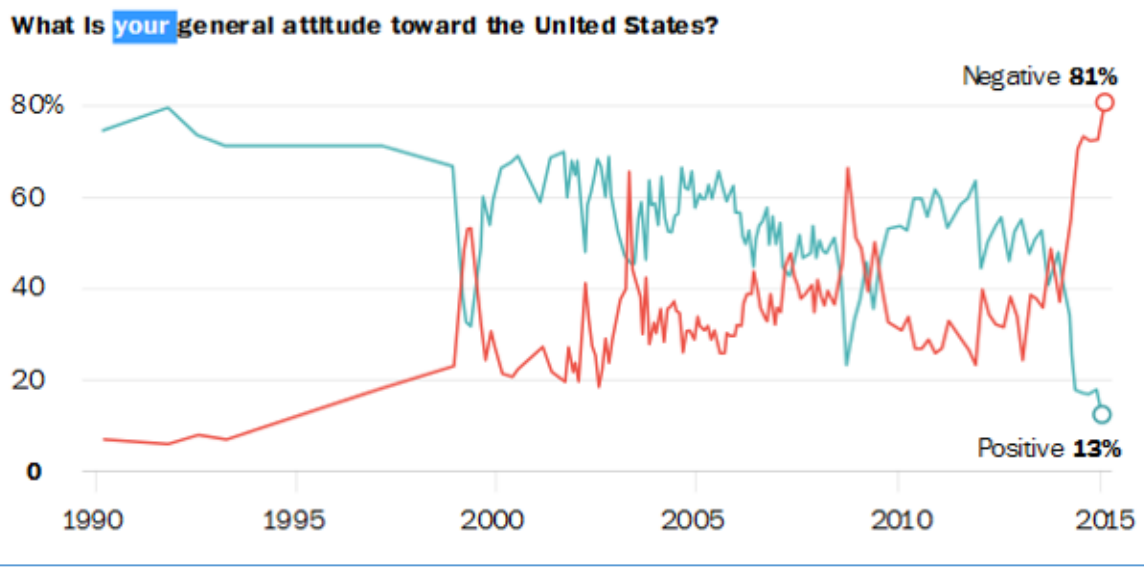
eliminated. Russians generally speaking were thus more in favor of deep nuclear arms reductions (provided the US nuclear stockpile's quantity goes down with that of Russia) in 2007 than they were in 2000. The question then is whether or not this norm has been reflected in Russia's nuclear weapons policy. In short, this has not been the case. The Russian active nuclear stockpile currently stands at 4,500 nuclear warheads, while in 2007 this number stood at almost 6,300. While this is a lot less than the more than 40,000 nuclear warheads the Soviet Union once had in stock, this is also more than twice that of SORT-mandated limits. Deep reductions in the Russian nuclear stockpile cannot be seen, and thus the norm is not reflected in Russia's nuclear weapons policy.

Second, we assess the proposition surrounding Russia's perception of the US:

H5: If Russia's perception of the United States changes for the better, a decrease in the strength and size of its nuclear weapons arsenal, an increase in its threshold for using nuclear weapons and a decrease in the making of nuclear threats against other countries should follow accordingly.

Russia in its official policy documents from time to time refers to other states as a threat to its national security. This implies the potential construction of the US by Russia as a threat, as being Russia's main nuclear adversary. In order to test our final hypothesis, this research again turns to public opinion polls, this time regarding public perception in Russia of the United States. Research carried out by the Levada Center in collaboration with Pew Research Center shows that the general perception of the US in Russia has changed thoroughly throughout the post-Cold War era, experiencing some sharp dips through time and generally declining ever since Russia adopted its constitution in 1993. Figure 5 shows the development of Russian public opinion of the United States over time during the post-Cold War era.

Figure 5: Russian Public Perception of the United States, 1990-2015



Source: Washington Post 2015; Pew Research Center 2015

Figure 5 clearly shows how public opinion in Russia regarding the United States has been subject to the major geopolitical events surrounding Russia. In 1999, the first major dip in Russian public perception of the US, the US was involved in the Kosovo War; a conflict taking place right at the 'doorstep' to Russia. The September 11th terrorist attacks in 2001 helped improve the opinion of Russian of the US. The 2003 invasion of Iraq had a negative impact on public opinion, as did the US reaction to Russia's 2008 war with Georgia. Following 2008, general perception increased again; only to reach an all-time low in early 2015 of 13 percent (Pew Research Center).

Now, to what extent does the development of Russia's general perception of the United States match changes in Russia's nuclear weapons policy? Two major depressions in Russia's perception of the United States align with changes in Russia's nuclear weapons policy: the one taking place in 1999, and the one taking place in 2008. Following both depressions, nuclear weapons became significantly more important to Russia's national security strategy. However, the improvement of Russia's perception of the US did not yield any significant effect on Russia's nuclear weapons policy. Following periods of better public opinion of the US, there

were no significant changes made to Russia's nuclear weapons policy that made nuclear weapons less important to its national security strategy.

6 Summary and Concluding Remarks

6.1 Summary and Alternative Explanations

This thesis sought to resolve which one of three international relations theories – neorealism, neoliberalism or social constructivism – best explains the development of Russia's nuclear weapons policy during the post-Cold War era. The research carried out first examined the specific way each theory would predict how a country makes decisions surrounding its nuclear weapons policy, leading to the establishment of five hypotheses. Second, this research examined the progression of Russia's nuclear weapons policy in the post-Cold War era. By looking into the quality and quantity (strength and size) of Russia's nuclear weapons arsenal, the development of its nuclear threshold and the making of nuclear threats by Russian government officials, it was first established that Russia's nuclear weapons policy indeed changed over the post-Cold War era. This thesis then turned to testing the hypotheses posited earlier. Having done so, it has become clear that no one hypothesis fully holds against the evidence provided by the Russian case. Thus, no one theory of international relations can fully explain the direction of Russia's nuclear weapons policy as a whole.

Some elements of change in Russia's nuclear weapons policy can be explained in some instances, yet not all changes can be explained by one hypothesis alone. Neorealism's expectation applies in one direction: its explanation of why a country would ascribe more importance to its nuclear weapons closely follows the Russian case. However, neorealism does not account for a decrease in the importance ascribed by Russia to its nuclear weapons. As for neoliberalism, while rising economic interdependence and an increased Russian involvement in the international nuclear regime match with the continuous decline in the size of Russia's nuclear stockpile, they cannot explain Russian nuclear weapons policy as a whole. The quality

of Russia's arsenal, its nuclear threshold and the making of nuclear threats by its government officials all change independently from both Russia's involvement in the nuclear regime and Russia's degree of interdependence. Finally, when looking at the hypotheses posited by social constructivism, it becomes clear that these too do not hold. The norm prevalent in Russian society, the idea of commencing deep reductions to the Russian arsenal's size, has not been reflected fully in Russia's nuclear weapons policy. Furthermore, changes in the Russian perception of the United States do not add up to changes in the Russian nuclear weapons policy.

All in all, this thesis argues that, when sticking to the application of international relations theory, the best way to explain the development of Russia's nuclear weapons policy is to combine insights from both neorealism and neoliberalism. In doing so, one can, trough neorealism, explain why nuclear weapons become more significant to Russia's national security strategy. Additionally, through neoliberalism, one can explain developments regarding the size of Russia's nuclear arsenal. One should keep in mind that such an approach is far from flawless. Primarily it does not account for reductions in the importance ascribed to nuclear weapons by Russia.

A major challenge encountered in this research is that there happened to be significant overlap between factors which, according to our differing hypotheses, could potentially influence Russian nuclear weapons policy. For example, economic decline (and thus loss of power) for Russia often coincided with a drop in positive public perception of the US. This research has attempted to differentiate as much as possible between the different explanations, offering as much insight in Russian nuclear weapons policy decision-making as possible.

This research has focused exclusively on the utility of international relations theory in explaining Russia's nuclear weapons policy in the post-Cold War era. However, as we found that no one theory of international relations can fully explain the direction of Russia's nuclear weapons policy as a whole, additional research should be undertaken. This future research then

should focus on exploring alternative explanations for the progression of Russia's nuclear weapons policy, explanations which due to their nature lie beyond the scope of this research.

One alternative explanation might revolve around (Russian) economics. From this research itself, it already becomes clear that most changes in Russia's nuclear weapons policy have occurred in the time periods directly following the three financial crises that hit the country in the post-Cold War era. Around 2000, just after Russia had defaulted on its debt, Russia lowered its nuclear threshold and decided to invest in the quality of its nuclear arsenal. Following the 2008/2009 crisis, Russia recommitted itself to this threshold, and once again pledged to modernize its nuclear arsenal. And, in light of the 2014/2015 economic recession, Russia for the first time in the post-Cold War era increased the size of its active nuclear weapons arsenal.

A second potential factor of influence on Russian nuclear weapons policy is the person in office as the Russian president. The personal preferences and views of a state leader can have tremendous effects on the way he or she acts regarding certain fields of government. Elite thinking about policymaking in all fields can be highly influenced by a nation's state leader.

A third potential explanation is that the importance of nuclear weapons to Russia's national security strategy is based solely on a risk-assessment of US or NATO conventional and nuclear forces vis-à-vis the Russian military. As the Russian military currently lacks the conventional means to withstand an assault by NATO forces, it could be possible that Russia, in response to what it perceives as NATO conventional threats, has turned to adhering more significance to nuclear weapons during specific moments in the post-Cold War era. Furthermore, it could be that Russia simply adheres to its nuclear weapons because the United States does so too. Of course, whether this or any of the other alternative explanations touched upon here hold is something for future research to uncover.

6.2 Conclusion

This research looked into the particular development of Russian nuclear weapons policy in the post-Cold War era. Specifically, it sought to answer to what extent three leading theories of International Relations – neorealism, neoliberalism and social constructivism – are capable of explaining the development of Russia's nuclear weapons policy in the post-Cold War era.

It first established that said policy has shifted a number of times from its inception in 1993: Russia in 2000 significantly lowered its nuclear threshold, turning it into arguably the lowest in the world: a margin which continues to stand up until today. Between 1993 and 2014 the total size of Russia's nuclear warhead inventory declined, albeit towards the end at a declining rate. In 2015, Russia's aggregate nuclear inventory for the first time in the post-Cold War era increased. The strength of Russia's nuclear arsenal is a different story. Two times since the end of the Cold War has Russia vowed to implement nuclear modernization programs. The modernization effort expressed by the Russian government in the early 2000s was effective only in the beginning; after a few years the Russian commitment to modernizing its nuclear arsenal faded. The modernization effort to which the Russian government pledged itself in 2008 has been more effective overall, as the quality of Russia's nuclear weapons arsenal has increased significantly since that year. Additionally, Russia's strategic warhead loading capacity, while continuously decreasing up until 2010, has roughly remained stable ever-since that same year. Finally, the use of nuclear threats by Russian government officials has risen substantially over the post-Cold War era. Since 1993, Russia has issued five distinct nuclear threats against another state: once in 1999, and the last four all since 2007 (2007, 2008, 2012 and 2015).

Our theories' expectations all fail to completely explain Russia's nuclear weapons policy. The hypothesis stemming from neorealism is of use in explaining why Russia has ascribed more importance to nuclear weapons at certain points in time since the end of the Cold

War. It however fails to account for those times when Russia decided to decrease the importance it ascribed to nuclear weapons for its national security strategy. Neoliberalism's expectations match the continuous decline in the quantity of Russia's nuclear arsenal. Interdependence and Russia's involvement in the international nuclear regime however do not account for changes in the quality of the Russian arsenal, changes in the amount of nuclear threats made by Russian officials or changes in the Russian nuclear threshold. The hypotheses posited by constructivism similarly do not hold. Amongst the Russian general public, there exists widespread support for much further reductions in Russian nuclear arsenal size than have been implemented so far, an idea which up until now has not been applied in Russia's nuclear weapons policy (or expressed in Russian policy documents). Likewise, Russia's perception of the United States has no identifiable influence on Russia's nuclear weapons policy.

While none of the three theories' expectations are fully met, this research concludes by asserting that Russian nuclear weapons policy in the post-Cold War era can best be explained by combining insights from the neorealist and neoliberal school of thought. Changes in Russia's power position can account for Russia adhering more importance to nuclear weapons, while Russia's involvement in the international nuclear regime, as well as increasing interdependency can account for the reductions in size of Russia's nuclear arsenal, as these are the only two factors matching the development of the quantity of Russia's nuclear weapon arsenal in the post-Cold War era.

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