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Ukrainian Nuclear Disarmament: 1990-2013

by

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Abstract

With the fall of the USSR in 1991, Ukraine inherited the third largest nuclear arsenal in the world. Though it had promised to relinquish this arsenal, important territorial disputes with the Russian Federation, mainly - though not exclusively - over Sevastopol and its naval base for the Black Sea Fleet, prompted the divided Ukrainian parliament to delay and amend treaties and agreements that would force Ukraine to give up its nuclear stockpile. Negotiations with Russia ran into difficulties, and this stalemate prompted American intervention. By tying Ukrainian disarmament to economic aid, Ukrainian leaders received compensation for their nuclear warheads. This was of double importance given Ukraine's imploding economic situation. After protracted negotiations, Ukraine agreed to the removal of its nuclear warheads in 1994, in agreement with both Russia and the United States. Monitoring has continued to the present to ensure that Ukraine does not export nuclear materials or technologies.

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Table of Contents

Introduction

Since the explosion of the world's first atomic device in 1945, attempts have been made to limit the spread of this potentially harmful technology and restrict the stockpiles of those states that possess nuclear weapons. These efforts are exemplified by the Non-Proliferation Treaty (NPT) of 1968, the Strategic Arms Limitation Talks (SALT-1) of 1972, and the Strategic Arms Reduction Treaties (START) of 1991, 1993, and 2010. Nuclear proliferation is currently an important foreign policy concern for many of the world's leading states and powers. This concern has been increased in the 21st century by the terrorist attacks of 2001, but before that the key event was the collapse of the Soviet Union in 1991. It resulted in its vast nuclear arsenal, built up over the span of decades, being divided amongst four new states: Russia, Belarus, Kazakhstan, and Ukraine. The three latter states agreed that Russia would become the legal inheritor of all Soviet nuclear weapons. For the most part, Belarus and Kazakhstan shipped their weapons to the Russian Federation without incident. Ukraine took a different path. It inherited 2,500 tactical nuclear weapons and 1,240 nuclear warheads located on 176 SS-19 and SS-24 missiles. Including Ukraine's inherited bomber fleet, the number of inherited strategic warheads was close to 1,900.[1] Ukraine chose to retain these weapons under various pretexts. Not until 1994 and only after numerous high-level negotiations would Ukraine unequivocally decide to relinquish its nuclear arsenal.

[1] Steven Pifer, "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons," *Brookings Arms Control Series* 6 (2011):3, accessed 28/09/2013, http://www.brookings.edu/~/media/research/files/papers/2011/5/trilateral%20process%20pifer/05_trilateral_process_pifer. See also "Country Profile: Ukraine," *Nuclear Threat Initiative*, accessed 28/09/2013, http://www.nti.org/country-profiles/ukraine/nuclear/

This thesis seeks to explore the major factors that drove Ukraine initially to retain its inherited nuclear weapons and then later relinquish them. It will also examine efforts by Ukraine and the international community to ensure that the founding of the new state did not become a focal point for nuclear technology and material proliferation. It will explore the political and economic relationship with the Russian Federation and the issues that arose as a result of Ukrainian independence. Correspondingly, it will also peruse Ukraine's domestic situation and the choices it faced on a number of fronts in the early years of independence.

Since Ukraine delivered its last nuclear warhead to Russia in 1996, the issue of Ukrainian nuclear disarmament has received little interest, other than as a case study by modern nuclear disarmament NGOs. Little scholarly attention has been paid to the aid Ukraine received after independence and the treaties signed between Ukraine and other states concerning its nuclear industry. This applies equally to international efforts at preventing nuclear materials from exiting Ukraine's borders. This examination of Ukraine's nuclear weapons period provides a better understanding of the nature of Ukraine's initial relationship with both the West and with Russia. Ukraine's relinquishing of its strategic arsenal allowed it to develop normalized and more fruitful relations with its neighbours and the outside world. Ukraine was not a bystander in the negotiations over its nuclear weapons, but was instead an active participant with a specific agenda, yet hitherto, few academic works have devoted much attention to this topic.

The first chapter of this thesis is devoted to the historiography of the Soviet nuclear program and the buildup of the Soviet nuclear stockpile from

Stalin to Gorbachev. It also outlines some of the works, from both Western and Ukrainian scholars, which have examined Ukrainian nuclear disarmament. Ensuing chapters will draw on sources (mainly articles, newspapers, treaties, and government documents) that more explicitly deal with Ukraine. Chapter Two examines the commitments made by Ukraine in its 1990 Declaration of Sovereignty regarding its desire to become a non-nuclear state. It outlines Russian territorial demands, which came from the highest levels of the Russian administration. The most prominent territorial dispute to emerge between Russia and Ukraine concerned the Black Sea Fleet and its naval base in Sevastopol. Centuries of intertwined history left Russia's elite poorly equipped to deal with an independent Ukraine. The chapter also investigates the nature of the CIS and Ukraine's role within it, and the limits placed on the country's integration with its former Soviet neighbours.

Chapter Three outlines the nature of Ukraine's new political system, its early legislative priorities, and its response to perceived Russian pressure. Chapter Four focuses on the economy and the unique situation in which Ukraine found itself after the severing of ties with its former Soviet neighbours, and particularly Russia. Chapter Five chronicles American involvement with Russia and Ukraine concerning Ukraine's nuclear weapons, leading ultimately to the 1994 Trilateral Statement and Budapest Memorandum. The final chapter highlights the aid provided to Ukraine by the international community – principally the USA, Canada, France, and the European Union. A pivotal event to study is the 1997 Treaty of Friendship between Russia and Ukraine, as it signified a definite turning

point in the relationship between the two states. Later treaties signed between the US, France, the EU, and Ukraine are also covered. A notable benefit of these nuclear treaties has been the outpouring of aid to help Ukraine with its nuclear power industry and the construction of a new containment dome over the radioactive Chernobyl reactor. This is of double significance, given the impact of the Chernobyl disaster on Ukraine and how it formed the background to talks on nuclear weapons. Leading Ukrainian political figures, from Leonid Kravchuk to Viktor Yanukovych, have remained resolute in their support for Ukrainian nuclear disarmament. This enthusiasm for and commitment to non-proliferation mark an important guarantor for the continued security of Eastern Europe and much of the surrounding neighbourhood.

Chapter 1: The Soviet Nuclear Program

In 1991, following months of eroding influence and a failed putsch, the Soviet Union peacefully collapsed. Ukraine, as one of the former constituent Soviet republics, inherited the third largest strategic missile and nuclear warhead stockpile in the world. Within a short time, it was put under intense international pressure - mainly by the United States and the Russian Federation - to relinquish this new found arsenal of mass destruction. Specifically, the Americans wanted Ukraine to ship the nuclear weapons situated within its borders to Russia for dismantlement and destruction. In order to understand properly the military and armament situation in which Ukraine found itself following its independence, it is first necessary to provide an outline of the Soviet nuclear program from its origins to its zenith in the 1980s. This chapter will therefore examine the history of the Soviet nuclear program from the program's beginning in the 1940s, to its decline in the late 1980s, and the challenges that faced the new Ukrainian state during the 1990s. Though scholarly output has been significant on American and Soviet nuclear problems, very little Western research has examined independent Ukraine's nuclear weapons era (1991-1994).

These studies can be split into two categories: those written before and after the USSR's collapse. In terms of primary sources, this is a significant distinction. Pre-1991 studies drew their primary sources from American estimates or the opaque field of Soviet military publications. Post-Soviet analyses, such as that of David Holloway, could make use of many new and hitherto inaccessible Soviet sources. The works that do examine Ukraine during this period, such as

Ruth Deyermond's *Security and Sovereignty in the Former Soviet Union,* include it as a section in a overarching analysis of a broader issue. Deyermond focuses on how conceptions of sovereignty have influenced the evolving relations of post-Soviet states. There also exist online numerous, if often very brief, summaries of Ukrainian nuclear disarmament. The problem with these accounts is that their brevity omits important factors that influenced Ukraine's eventual decision to relinquish its sizeable nuclear arsenal. The goal of this analysis will be to highlight the process of Ukraine's nuclear disarmament using both Western and Ukrainian primary and secondary sources, and outlining the numerous challenges facing Ukraine since its independence to the present.

The first author to be summarized is David Holloway, whose study closely follows the origin and development of the Soviet atomic and thermonuclear bomb programs. Next, Michael Gordin looks at post-war international attempts at arms control and how the relationship between the superpowers evolved along the lines of global diplomatic and technological developments. Zhores Medvedev's account of a Soviet nuclear accident in the Urals reveals the secretive nature of the Soviet nuclear program and how creative investigative work could get around Soviet censorship. Honore Catudal provides an in-depth overview of the Soviet nuclear program from its inception to the early Gorbachev years (1945-1987), in an overview directed to a general readership. Paul Josephson concentrates on the Soviet nuclear program's more peaceful applications, providing an excellent recount of its development from 1945 to the present. He also includes a detailed account of Ukraine's contribution. Finally, Richard Rhodes' study looks at the

superpower arms race and the factors that led to the groundbreaking arms reduction treaties of the late 1980s and early 1990s. In analyzing post-Soviet Ukraine, Ruth Deyermond's analysis of the importance of the definition of sovereignty will help to elucidate some of the difficulties faced by independent Ukraine. A paper written by H.M Perepelytsia of the Ukrainian National Institute of Strategic Studies, a state-funded presidential advisory body, reveals some of the obstacles and goals facing the new Ukrainian state. Finally, Steven Pifer's brief summary of the process of nuclear disarmament involving Ukraine and Russia, from the perspective of an American diplomat, clearly summarizes the main events of the complicated years 1992-1994. Together these sources provide a useful background to my deeper focus on the Ukrainian nuclear program since independence.

The 1994 book *Stalin and the Bomb: The Soviet Union and Atomic Energy, 1939-1956* is the most comprehensive analysis of the Soviet nuclear program to date. In it, the author attempts to situate the development of the Soviet atomic program in both its domestic and international context. Ultimately, Holloway argues that the Soviet nuclear program was a response to the perceived strategic imbalance vis-a-vis the Americans following the atomic destruction of Hiroshima and Nagasaki. Pushed forward by Stalin and L.P. Beria, there is little that the Americans could have done to prevent the Cold War and the corresponding arms race that arose from Stalin's paranoia and conviction about the inevitability of war.[2] Despite operating under the harsh realities and working

[2] David Holloway, *Stalin and the Bomb: The Soviet Union and Atomic Energy, 1939-1956* (London: Yale University Press, 1994), 370. Lavrentii Beria, in addition to being the leading

conditions of Stalinism, Soviet physics became a very prestigious profession, and the men and women within it managed to maintain their intellectual and moral integrity.[3]

Prior to the October Revolution, Russian scientists had achieved some scientific renown, particularly in chemistry and mathematics. However, physics had little tradition or institutional presence in Tsarist Russia. Following the Bolshevik takeover, Abram Ioffe played a crucial role in the creation of a world-class Soviet physics community through his ability to convince Soviet authorities of the economic benefits and spillovers that could be derived from investment and research in physics.[4] In 1918, he secured the funding necessary for the establishment of his own physics institute (one which would eventually bear his name) in Petrograd. Under Ioffe, such prominent physicists as Igor Kurchatov, Yulii Khariton, Pyotr Kapitsa and Lev Artsimovich received their training and all of these men would be crucial in the development of the Soviet nuclear program. Thanks to Ioffe, Soviet physicists travelled abroad in order to study and establish contacts with their Western peers; these international contacts became doubly important during the early 1930s when Stalin's drive for industrialization operated under the motto of "catch up and overtake."[5] Catching up entailed Soviet scientists copying Western techniques and methods, though by the late 1930s

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political figure in the Soviet atomic program, was also the Minister of Internal Affairs and in charge of the NKVD. He was ousted from the Politburo following Stalin's death and executed in 1953.

[3] Soviet physicists, if not drawn directly from the labor camps, were placed in secret, unnamed cities cut off from the outside world. Andrei Sakharov, the renowned Soviet physicist worked in one such city which he dubbed 'Los Arzamas.' Because of the prestige of Soviet physicist, they would later play a prominent role in the letter-writing campaign of the 1960s denouncing the impact of the quack scientist Timofey Lysenko on Soviet biological sciences, specifically genetics.

[4] Ibid., 25.

[5] Ibid., 15.

many physicists fell under suspicion precisely because of their contacts with Westerners and were not spared the arbitrary arrests of the Terror. Another important Soviet physics institute was the Ukrainian Physicotechnical Institute (UFTI) in Kharkiv. By the mid-1930s it was noted for its free and open atmosphere; in fact, it had a larger staff and received more funding than Ioffe's own institute.[6] Unfortunately, this institute's staff was particularly hard hit by the purges and the Terror, and most of its staff members were arrested.

Despite the purging of a portion of the physics community, physicists from the Ioffe institute and the Physics Institute of the Academy of Sciences (FIAN)[7] were well aware of the developments occurring in the realm of international physics. Many papers on the subject of fission and chain reactions were being published in Soviet scientific journals, an example being Khariton and Yakov Zeldovich's 1940 paper on the kinetics of a chain reaction as it neared its critical condition.[8] Just as the Soviet leadership was considering the feasibility of an atomic weapon, war broke out in June 1941 following the surprise invasion of the USSR by Nazi Germany. Holloway notes that this attack and the outbreak of war severely hampered Soviet atomic research, whose resources were diverted elsewhere. Soviet physicists instead patriotically devoted themselves to warfare-related studies, such as armour development and the demagnetization of ships' hulls.[9] Only in 1943 did atomic research begin anew, though at a fraction of the

[6] Ibid., 42
[7] FIAN was established in Moscow in 1934 as means of Soviet research into physics, though Ioffe feared that it would become the new centre. Ibid., 45.
[8] Ibid., 55.
[9] Ibid., 74-75.

investment levels that would be devoted to the nuclear project following the American atomic bombing of Japan.

Even with captured German uranium ore and access to Czechoslovak uranium mines, the Soviet Union in 1945 was far away from having enough uranium to power a reactor, let alone equip a bomb. This was soon remedied through the extensive use of slave labour - taken from the GULAG - in the Soviet uranium mining and uranium exploration programs.[10] The reactors were necessary to enrich uranium into either its unstable isotope, 235 U, or preferably the man-made element plutonium. From here, the plutonium or uranium isotope had to undergo isotopic separation from the stable uranium. At best, this process produced only a few grams of useable material a day; therefore, an entire nationwide industry of reactors and separators had to be constructed throughout the USSR. The technical and engineering expertise required to achieve this feat was daunting, though the Soviets received some aid from well-placed spies within the Manhattan project.[11] With the Soviet atomic bomb project under the capable and affable Kurchatov, who in turn answered to the remorseless Beria, rapid progress was made. Early on the morning of August 29, 1949, in the remote steppe of Kazakhstan and on top of a thirty-meter metal tower, the first Soviet atomic bomb was detonated.[12]

Holloway points out that the difference in length of the Soviet and American atomic projects, from the moment that a chain reaction was first

[10] Ibid., 172. 185.
[11] The most prominent of these spies was Klaus Fuchs, who was arrested in 1946, sentenced in 1950 and later deported to East Germany where he died in 1988.
[12] Ibid., 213.

reached, was only three weeks.[13] The Soviet command economy was a crucial component in the success of the atomic program, due to its ability to mobilize resources into specific state projects. For Stalin, the atomic bomb was not the only technology that could be used to help restore the balance of international power. Such technologies as radar, long range aircraft, ballistic missiles (research for which was partially based in Ukraine) and jet propulsion were all seen as alternate means of counteracting what Stalin perceived to be the encroaching power of the United States.[14] Stemming from this logic, the most important technology to be developed by the Soviet scientists and engineers was the hydrogen bomb. In contrast to the Americans' soul-searching, there was no deliberation on the part of the Soviets as to whether or not to construct the so-called "super bomb." Already conceived while the atomic project was underway, the Soviet hydrogen bomb project was placed under Igor Tamm, a physicist who grew up in Ukraine and later headed the theoretical department at FIAN. Second in command of the bomb project was Andrei Sakharov, the physicist who was responsible for the design of what would become the first Soviet thermonuclear device, nicknamed the "layer-cake." This bomb was technically a boosted-fission bomb, as it used fusion energy to boost the explosion of a fission bomb interior and it was primarily pursued by the Soviets until 1954, by which point it was abandoned in favour of a true, purely fusion bomb capable of yields greater than one megaton.[15] This 'true' fusion bomb was detonated on November 22, 1955 and for Holloway this event

[13] Ibid., 220.
[14] Ibid., 144-149, 324. First-generation Soviet missiles had to be fuelled before firing and were advocated by the renowned Sergei Korolev, born to Russian-Ukrainian parents. Mikhail Yangel pushed instead for missiles with stored fuel, receiving his own research and design bureau in Dnipropetrovsk.
[15] Ibid., 313-314

marks an important milestone for it was purely the result of Soviet design, construction, and ingenuity, revealing the often-downplayed scientific capabilities of the USSR.[16] For Stalin, the development of weapons of mass destruction ensured that the USSR could not be intimidated; moreover, Stalin's posturing in foreign policy ensured that the Cold War and the arms race would not be temporary phenomena.

As touched upon earlier, the Soviet Union's atomic weapons program received a boost from intelligence obtained from spies within the United States and the United Kingdom. In *Red Cloud at Dawn*, Michael Gordin analyzes the period of America's nuclear monopoly (1945-1949), showing that the USSR did not rely as much on this espionage as is often believed. Gordin also pays close attention to US attempts at arms control following Hiroshima and how the Americans were able to detect Soviet atomic tests and explosions, ultimately showing that the Soviets and Americans relied on very different intelligence gathering methods.

After the end of the Second World War, there was initially great optimism among much of the American public that the proliferation of atomic weapons could be avoided. However, this proved to be a false hope. The American-sponsored Baruch Plan called for the placement of all existing American atomic devices under UN jurisdiction, but in 1948 the Soviets rejected it on the grounds that there could be no guarantee that the UN would remain an impartial third-party actor in future developments. According to Molotov, the Baruch Plan was "...a control , so shaped as, on the surface, to appear international, while in reality

[16] Ibid., 317

it is designed to secure a veiled monopoly for the United States in this field."[17] The Gromyko Plan (the Soviet counterproposal), which called for the destruction of all nuclear weapons, was rejected in turn by the Americans. The logic behind the rejection of the Soviet proposal was that the USSR enjoyed a massive advantage in conventional forces in Europe. As the Second World War was nearing its end, the United States rapidly demobilized, while the USSR maintained a large military presence in Europe. For the Americans, nuclear weapons offered a means of countering this geo-strategic disadvantage.[18] Establishing a non-proliferation agreement with the Soviets was essential given that the USSR was expected to be the next state with nuclear capabilities. As such, predicting when the Soviets would acquire such a capability was critical for American policymakers.

Disdain for Soviet expertise prompted some analysts to predict the date of a Soviet nuclear explosion in the distant future. However, most predicted the USSR would have the bomb within five years, though this estimate was poorly defined and each successive year it was again reiterated that it would be another five years before America's nuclear monopoly was over.[19] It therefore came as a great surprise when the Soviets exploded Joe-1 in 1949, though Gordin notes that this failure to predict accurately the date when the Soviets would detonate the bomb had two important consequences: first, it undermined the impetus for an

[17] Micheal D. Gordin, *Red Cloud at Dawn: Truman, Stalin and the End of the Atomic Monopoly* (New York: Farar, Strauss and Giroux, 2009), 51.
[18] Ibid., 27
[19] Ibid., 80.

American first-strike and second, it encouraged the United States to release more data from the Manhattan Project.

After the Atomic Energy Act (aka the McMahon Act) was passed in 1946, US nuclear power was placed under civilian administration. Through a series of committees it was decided that the US ought to share some of its atomic secrets with the world, to demonstrate American goodwill and provide academics with research avenues not pursued in the Manhattan Project – an example being medical isotopes. The result was the Smyth Report. Gordin is quick to point out that the Cold War theory that the Soviet bomb was only possible due to the expertise of captured German scientists is erroneous. The Germans came willingly to the USSR because of the allure of higher wages (in comparison not only with war torn Germany, but also all the USSR) and there they worked separately from Soviet scientists, their final contributions to the Soviet project being relatively minor.[20] Gordin next examines what precisely was given to the Soviets by Klaus Fuchs and the Cambridge Five.[21] The Cambridge Five mainly alerted the Soviet leadership to the fact that Western powers, during the 1930s and the Second World War, were interested in pursuing weaponized uranium projects. The intelligence obtained from Fuchs revealed to the Soviets the numerous problems and setbacks associated with an atomic bomb using a gun-design and that the USA instead pursued an implosion-based plutonium bomb.[22] However, according to Gordin, these acts of espionage were much less useful for the USSR than the

[20] Ibid., 128-130.
[21] The Cambridge Five were Kim Philby, Donald Stuart Maclean, Guy Burgess, Anthony Blunt, and John Cairncross, all of whom were recruited as Soviet spies at Cambridge University in the 1930s.
[22] Ibid., 111-113, 150.

information released through the Smyth Report. Through the latter, which was made public in 1945, the Soviet bomb design team was able to refine their isotope separation; moreover, when translated into Russian, this report served as a verbatim primer for Soviet engineers working on the project.[23]

Whereas the Soviets relied upon human sources to gather their intelligence, the Americans were forced to use more technology-focused methods. Lacking seismic equipment to detect the shockwaves emanating from a possible Soviet atomic blast, the Americans decided to pursue a system that could trace isotopes in the atmosphere. This required daily tests of rainwater and flights in the Arctic and along the Soviet Pacific coast with B-29s flying at 18,500 feet, equipped with a filter.[24] When the Soviet test was discovered in September 1949, the American defence budget soon received a dramatic boost in funding. With the groundwork for the arms race thus laid, Gordin concludes his study by claiming that the failures of intelligence gathering for both the USSR and the USA prevented the kind of understanding needed for an arms-control treaty. Ultimately, the lack of a treaty would continue to plague superpower relations for the next four decades.

Nearly three decades before the nuclear disaster at Chernobyl, another lesser-known accident occurred in the Urals near the city of Chelyabinsk. Writing in 1976, Zhores Medvedev was responding to claims made in newspapers from around the world questioning his assertion that a nuclear disaster had occurred in

[23] Ibid., 104.
[24] Ibid., 201-203.

the USSR, between 1957-1958.[25] In *Nuclear Disaster in the Urals*, Medvedev sets out to prove that such an accident did indeed occur. Medvedev, a dissident scientist who had emigrated to England in 1972, had zero access to the needed (and most assuredly classified) Soviet documents related to its atomic industry. Having originally learned about this disaster through colleagues in the Soviet Union during the late 1950s, Medvedev ingeniously shows that there was without a doubt a major accident in the Urals. He uses discrepancies in published Soviet scientific papers relating to radiobiology and genetics to prove a rough date of origin and location for the accident. The publication dates and the poor job done censoring the articles are also provided as evidence. The nature of this censorship, according to Medvedev, indicates that the scientists involved were working on classified government projects.[26]

The first publications examined by Medvedev studied the amounts of strontium-90 and cesium-137 in a series of unnamed lakes. Medvedev ascertains that due to the large numbers of fish sampled by the researchers, the lakes involved in the studies had to be very large.[27] Analogous conclusions are also drawn from studies done on mammals, birds, and plant life and similar radiation levels point to a common area of study. A normal study would have a small controlled area quarantined for study. In contrast, these government scientists were conducting their studies in environments measured by square kilometres. By calculating the beginning of the studies, Medvedev is able to trace the original

[25] Zhores Medvedev, *Nuclear Disaster in the Urals*, trans. George Saunders (New York: W.W Norton and Company, 1979), 5-8.
[26] Ibid., 27-33.
[27] Ibid., 40-41, 44-45.

date of contamination to 1957-1958. This is done by extrapolating data from the number of generations that the researchers claim were exposed to radiation.[28] Moreover, in each study Medvedev stresses that the amount of radiation to which the studied areas were exposed far exceeded the amount needed for normal study and the maintenance of a healthy ecosystem.[29] Finally, Medvedev determines the location of all the studies as the South Urals by comparing which species shared a common habitat.[30] As further verification, Medvedev provides CIA documents and eyewitness accounts that corroborate the fact that a nuclear disaster occurred in 1957-1958. In his conclusion, Medvedev speculates on how exactly the incident occurred, his opinion being that early Soviet nuclear waste storage facilities malfunctioned.[31] Overall, Medvedev's book is telling in that it shows that mistakes and cover-ups in the Soviet nuclear industry were not uncommon. This accident at the Mayak facility is now recognized as being the third most serious at a nuclear facility, after Chernobyl and the more recent Fukushima accidents, and was the subject of a thorough Russian investigation in 1994.

Honore M. Catudal's book, *Soviet Nuclear Strategy from Stalin to Gorbachev: A Revolution in Soviet Military and Political Thinking*, analyzes the evolving nature of Soviet atomic and thermonuclear armaments and overall strategic doctrine. In actuality, Catudal examines Soviet military doctrine (the broad guide to combat and military action) much more than strategy (the use of various means to achieve national objectives). He notes that for much of the Cold

[28] Ibid., 70-73.
[29] Ibid., 99
[30] Ibid., 45, 78-79,118.
[31] Ibid., 155-165.

War, American nuclear theorists and strategists took a very Ameri-centric view on Soviet thought, believing that Soviet planners and strategists would think and reach conclusions just as Americans would.[32] For this reason, Catudal tries to incorporate official and public Soviet writings and speeches to show how Soviet strategic thought differed from that of their Cold War rivals. Overall, however, Catudal's book is more of a narrative of how Soviet doctrine evolved, rather than an analysis of how this doctrine influenced the Cold War.

Catudal notes that with the end of the war and an American atomic monopoly, Stalin made a point of de-emphasizing the importance of such weapons, viewing them simply as large yield conventional weapons. Instead, Stalin made sure that Soviet military doctrine and thought was stifled; only his "permanently operating factors" could be discussed.[33] This Stalinist doctrine ignored the implications of surprise attacks and new technology, and instead concentrated on Soviet conventional strengths and insights gained in the Great Patriotic War. Despite the fact that he strangled military thought, Stalin was correct in pursuing multiple different technologies to serve as delivery vehicles for Soviet weapons, Catudal believes.[34] Once the Soviet hydrogen bomb was completed, shortly after Stalin's death in 1953, it became apparent that thermonuclear weapons could be made much smaller than atomic bombs and therefore were deliverable by ballistic missiles. An important change made by

[32] Honore M. Catudal, *Soviet Nuclear Strategy from Stalin to Gorbachev: A Revolution in Soviet Military and Political Thinking* (London: Mansell Publishing Ltd., 1988), 13-19.
[33] Ibid., 30-32. Stalin, drawing on experience from the Great Patriotic War, believed that five factors would determine the outcome of future wars. These were: the stability of the rear, the morale of the troops, the quality and quantity of divisions, the morale of the troops, the weapons of the army, and the organizational ability of the command personnel.
[34] Ibid., 37.

Stalin was the separation of the army and Soviet air defence forces, in addition to starting the construction of a large surface fleet for the navy. Following Stalin's death, changes in the composition of Soviet military forces and their respective doctrines could now be pursued.

His eventual successor was Nikita S. Khrushchev, whose first action in the military sphere was to acknowledge that surprise was a crucial component in modern combat. From the mid to late 1950s, the Soviets introduced their first generation of tactical ballistic missiles (the SS-1, 2, and 3) and long range bombers (the Bear and Bison classes), though these bombers could only reach the United States on one-way suicide missions.[35] Under Khrushchev further generations of missiles were deployed, though these missiles would prove to be unreliable and cumbersome. Nonetheless, the Soviet leadership now recognized that a nuclear war would have no victors because of the enormous human casualties that would result from a full-scale confrontation. In light of the enormous power at the disposal of the superpowers, Khrushchev found it prudent to slash the size of the Red Army and free up investment for the civilian economy.[36] Additionally, he also separated Soviet nuclear forces from the other branches of the military by creating the Strategic Rocket Forces in 1960. In turn, KGB agents were responsible for arming the warheads of each device before use.[37] During the early 1960s the USSR, compared to the USA, was still at a colossal disadvantage in terms of deliverable weapons. By placing intermediate range missiles (of which the USSR had ample amounts) on Cuba in 1962,

[35] Ibid., 45-46.
[36] Ibid., 56.
[37] Ibid., 253-254.

Khrushchev hoped to rectify this strategic imbalance. The attempt failed and, at least publicly, it seemed that the Soviet armed forces had suffered a serious embarrassment. Naturally, the cuts to the army budget and Caribbean fiasco angered many members of the Soviet military leadership, who in turned sided against Nikita Sergeevich in the 1964 coup that removed him from office.[38]

Khrushchev's replacement, Leonid Brezhnev, maintained closer links with the Soviet Ministry of Defence and the military-industrial complex. To redress the strategic imbalance on a permanent basis, the USSR in the 1960s underwent an unprecedented arms buildup. It initially comprised SS-9s and SS-11s, though in the mid-1970s the more modern SS-17s, SS-18s, and SS-19s were introduced.[39] As a result of this rough strategic parity, both the US and the USSR sought to set a ceiling to the number of delivery vehicles each side possessed in the 1972 SALT I treaty. The Americans, enjoying a lead in multiple independently targeted re-entry vehicle (MIRV) technology, were eager to leave out a maximum limit for warheads, though Soviet scientists soon developed such technology and deployed it.[40] Given that the Soviets were allowed roughly 2,400 launchers and the US 1,700, there was a great deal of room for further warhead proliferation. In fact, the larger Soviet missiles, though less reliable and accurate due to faulty gyroscopes, were capable of carrying many more warheads and over half of new Soviet warheads were built for this purpose after 1979.[41] This apparent advantage sparked the furor of conservative American lawmakers, who lobbied ceaselessly

[38] Ibid., 57-59.
[39] Ibid., 64-70
[40] Ibid., 68. Half of these missiles were deployed west of the Urals in the European republics.
[41] Ibid., 253.

to increase American military spending. Adding to this nervousness was the fact that the USSR maintained that in a war it was best to strike with massive force at the earliest sign of nuclear aggression, the aim being to cripple enemy forces.[42] The goal of SALT II, which was initially signed in Vladivostok by Brezhnev and President Carter, was to limit the amount of MIRV warheads, though the Soviet invasion of Afghanistan in December 1979 and the subsequent end of Detente ensured that this treaty was never ratified.

Catudal comments that one of the strategic developments that occurred in the 1980s was the Soviet deployment of its mobile IBRM, the SS-20, which prompted the deployment of American Pershing II cruise missiles in West Germany. Nonetheless, the majority of strategic Soviet warheads were held in twenty-six different compounds across the USSR, in the republics of Ukraine, Russia, Belarus, and Kazakhstan.[43] The USSR also had—on paper—a civil-defence program, though Catudal is quick to point out that the likelihood of the USSR evacuating millions of citizens was zero, given the country's poor infrastructure. This was the state of strategic affairs in the early 1980s. The United States, even in the unthinkable event of having its land-based ICBMs destroyed, would still possess its virtually undetectable ballistic missile submarine fleet (SSBNs); moreover, the Soviets made numerous promises that they would not be the first to use nuclear weapons (contradicting their earlier military doctrine).[44] Despite these considerations, with the election of the Republican president Ronald W. Reagan (1981), the US began a military spending spree that included the

[42] Ibid., 164-170; 242-245.
[43] Ibid.,
[44] Ibid., 108-112.

infamous Strategic Defence Initiative (known colloquially as Star Wars). Catudal concludes his book by analyzing the hitherto unprecedented Intermediate-Range Nuclear Force treaty (INF) treaty, which removed all medium and intermediate range ballistic missiles (MRBMs and IRBMs) from Europe. It is in this brief section that the author describes the revolution that was overtaking the Soviet military, if not the USSR as a whole. Overall, Catudal's work provides an excellent overview of the Soviet nuclear buildup in the 1960s and 1970s, though his overview is unfortunately lacking parting analysis.

The construction of all Soviet nuclear weapons, just like their American, French or Chinese equivalents, began in nuclear reactors specifically designed to produce weapons-grade fissile material. The following section will analyze the developments and later setbacks of the Soviet civilian nuclear industry, an industry that had a two-pronged purpose: the production of enriched nuclear materials and the creation of vast quantities of electricity for the Soviet economy.

The main theme of Paul Josephson's book is that the Soviet nuclear energy program combined the drawbacks of bureaucracy, Soviet communism, and unproven science. In *Red Atom: Russia's Nuclear Power Program from Stalin to Today*, Josephson shows that atomic energy was seen as a panacea by the Soviets. It helped to legitimize the regime both domestically and internationally, showing in many respects that Soviet science was world-class, and a leader in certain fields such as fusion technology. The vast power that could be harnessed from the atom promised the electricity needed for a communist, utopian future. It would power the automated plants of tomorrow, all the while providing the heating and

electricity needed for Soviet cities and other residential areas. More importantly, it had pragmatic economic and military benefits. The construction of nuclear reactors throughout the European portion of the USSR was designed to help reduce the use of gas and oil.[45] Soviet gas and oil reserves in the European USSR had dwindled and the transport of fossil fuels to Soviet or Eastern European consumers was very unprofitable when instead these fuels could be sold on world markets, thus bolstering Soviet hard-currency earnings. Josephson points out that once scientists became involved in the Soviet bureaucracy, they constantly pushed for more and more reactors. Luckily for them, the Soviet command economy proved adept at producing standardized products and the USSR would come to possess one of the largest atomic power programs in the world. However, this standardization would also lead to several catastrophes.

Josephson provides a concise account of Soviet civilian reactors and the growth of the civilian atomic industry in the USSR. The Soviets developed two different sorts of reactors, one being the pressurized water reactor (VVER), the other being the graphite moderated reactor, or the RBMK. In the 1950s, Soviet engineers and scientists designed the VVER to power ships, namely submarines and large surface vessels. Once the Soviet Union collapsed, Russia was unable to pay for the maintenance and decommissioning costs for much of its nuclear submarine fleet and in ports across Russia, these submarines sat rusting in dock with their VVER reactors still active.[46] The VVER reactor would later be built on a large industrial scale, with reactors eventually having a capacity of 1,000

[45] Paul Josephson, *Red Atom: Russia's Nuclear Power Program from Stalin to Today* (New York: WH Freedman and Company, 1999), 8-9.
[46] Ibid., 278, 288.

megawatts of electric power. Some were placed next to Soviet cities; the super-heated steam was piped into the city to provide heating for apartments and houses, for having one's own boiler or heater was considered by Soviet authorities as a bourgeois luxury.[47] The RBMK was essentially a large cube of graphite with many channels in it. In these channels were placed rods of uranium enriched to 2-4%, whose slow release of heat from radioactivity heated pipes of water running through the apparatus. This water, once turned to steam, turned turbines and produced electricity. The first of these RBMKs to become operational was the Obninsk reactor, which came online in 1955 and produced 5,000Kw of electrical power. The advantage of this reactor was that the by-products of its fuel rods could be used for weapon production and that the reactor could be refuelled even while still running.[48] Better still was that by simply increasing the size of the reactor, engineers could increase the output of the plant. All that was needed was more coolant/moderator (control rods) and large enough turbines to produce more electricity. Because RBMK output was only a question of size, the Soviets standardized its production and did not have to establish a separate machine-building industry, instead using pre-existing components from other branches of Soviet industry. In an attempt to cut costs, nuclear reactor production was serialized and then treated just like any other production unit in what Josephson terms "nuclear concrete."[49] Soviet nuclear reactors were even exported to client socialist states such as Czechoslovakia, which also had a license to produce VVERs. RBMKs were strictly for use in the Soviet Union.

[47] Ibid., 37-41.
[48] Ibid., 20-21.
[49] Ibid., 108.

VVERs and RBMKs were the least exotic and farfetched applications of Soviet atomic energy according to Josephson. The USSR also developed another sort of reactor, known as the breeder reactor. This reactor was designed essentially to create more uranium, which in turn could be used for more breeder reactors, weapons, or more RBMKs. However, its design never proved to be stable and numerous accidents and fires occurred at the sites where these installations were constructed.[50] More disturbing still were plans to use nuclear weapons to sculpt the earth for the needs of Soviet agriculture, industry, and production. An example of this can be seen in the proposal to divert Siberian rivers to the Caspian Sea for irrigation purposes.[51] Mobile reactors that could be floated in the Arctic (trailing nuclear icebreakers) or para-dropped were also designed.[52] The purpose of all these strange proposals and applications was to show to Soviet citizens and the world the power and sophistication of Soviet science. According to its proponents, nuclear power could solve many of the USSR's problems, all at less cost than more conventional methods.

Like Holloway, Josephson notes the importance of the Kharkiv Institute (UFTI) for the early stages of Soviet atomic research. Founded in 1928, by the mid-thirties UFTI was, according to Josephson, the "...place to be for young physicists."[53] These scientists, working under the supervision of Ioffe and Lev Landau (the institute was nicknamed the Landau school), published a German-language journal, which contained some of the USSR's best scientific scholarship

[50] Ibid., 78-81.
[51] Ibid., 247-250.
[52] Ibid., 142-145.
[53] Ibid., 210

and papers. However, Kharkiv's pre-eminence as the USSR's centre for research in physics was short lived. The Terror, which hit Ukraine somewhat earlier than the rest of the USSR and destroyed much of the republican intelligentsia, weakened the institute. The Nazi invasion then halted its research, as the remaining scientists were forced to evacuate in haste.[54] After the war, UFTI would once again rise to prominence as a centre for thermonuclear and fusion research under Kirill Sinelnikov, the former head of the Ukrainian team working on the Soviet atomic bomb. With Sinelnikov at the helm, UFTI became the Soviet leader in the use of stellarators in plasma confinement, though they also worked on the high frequency properties of plasma, gas discharge, magnetohydrodynamics, and magnetic traps.[55] Ukraine was also a showcase for what Soviet nuclear energy could do. Before the USSR dissolved, thirteen out of forty-four Soviet nuclear reactors were situated in the republic, which correspondingly obtained 50% of its electricity from nuclear power.[56] The Chernobyl nuclear park, located 137 km north of Kyiv, represented the culmination of the Soviet atomic dream. Shoddy and rushed construction, poorly-designed safety systems, and a general belief that Soviet engineers were above the possibility of a major accident, their minimal training notwithstanding, resulted in disaster on April 26, 1986. The Chernobyl explosion was the worst civilian nuclear accident in history. For Josephson, this disaster was the epitome of what happens when "...understanding nature and applying that knowledge for human

[54] Ibid., 218-219.
[55] Ibid., 197.
[56] Ibid., 241-246.

purposes...became blurred in a society infused with a xenophobic and omniscient ideology."[57]

Another related Western study is Richard Rhodes' *Arsenals of Folly: The Making of the Nuclear Arms Race.* Rhodes attempts to highlight the factors that perpetuated the arms race, the primary motivator being fear. More specifically, the Soviets sought security at all costs, even if it meant the neglect of the non-defence - related sectors of their economy. According to Rhodes, this sort of thinking derived from the tremendous losses suffered by the USSR during the Second World War and their psychological effect on subsequent generations of Soviet leaders.[58] Adding to this was the sentiment in the Soviet leadership that the Cuban fiasco occurred because of USA's overwhelming advantage in deliverable nuclear weapons.[59] The large build-up of Soviet armaments in the 1960s and 1970s began in order to remedy this situation. The consequences of this decision would be profound and long lasting. When he was elected General Secretary of the CC CPSU in March 1985, Gorbachev saw that the USSR's heavy investment in defence was stifling his country and that only by allowing more initiatives for Soviet workers could they achieve their full productive potential. Rhodes begins his discussion with a vignette of the Chernobyl nuclear disaster, claiming that Gorbachev's handling of the situation marked a change in Soviet history and that the new General Secretary was committed to reform.[60]

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[57] Ibid., 242.
[58] Richard Rhodes, *Arsenals of Folly: The Making of the Nuclear Arms Race* (New York: Alfred A. Knopf, 2007), 126
[59] Ibid., 61-62. 94-95.
[60] Ibid., 22-25.

A consequence of the build-up was the emergence of conservative think tanks that constantly advanced their ideological agenda. Rhodes, like Catudal, spends much of his book analyzing this development. First, Paul Nitze—a prominent American government official, businessman and lobbyist—strove to convince successive American administrations that the use of nuclear weapons in combat would be acceptable.[61] He would later become a major proponent in the American movement to reject the ratification of SALT II, claiming that it would just aid the Soviets in their continuing attempt at gaining a first-strike capability.[62] It was under Nitze's tutelage that Donald Rumsfeld, Richard Cheney, and later Richard Pipes began their government careers and like Nitze, they put ideological conviction ahead of consensus and generally accepted facts.[63] For the Soviets, the maintenance of a larger stockpile of nuclear weapons was a matter of prudence, given that they were surrounded by hostile powers (NATO included three nuclear states and China was antagonistic to the USSR). In the 1980 presidential election, American conservatives' view of the USSR as an aggressive state bent on world domination resonated with a misled public (according to Rhodes), thus adding to Reagan's victory. Rhodes maintains that there was ample information available to the Americans showing that the USSR was facing severe economic and societal troubles from as early as the mid-1960s. The SS-20 deployment in Europe, for example, is viewed by Rhodes not as a strategic or political message to the Americans, but rather as a routine upgrade of Soviet weapons. Regardless of whether or not Soviet actions in the 1980s represented a bid for global power,

[61] Ibid., 102-103.
[62] Ibid., 102.
[63] Ibid., 120-132.

Rhodes stresses the uselessness and folly of the huge stockpiles of nuclear warheads maintained by the superpowers.

This author also makes it clear that the Soviet leaders after Brezhnev chose to scale back their nuclear forces of their own volition, and not because they were under pressure from Reagan and the American arms buildup. Andropov and the Soviet Politburo came to see that superpower tensions had to be reduced after reaching a peak in the early 1980s.[64] In truth, Reagan also wanted to reduce tensions, his vision - particularly in his second term - being a nuclear-free world. When he met Gorbachev in Geneva in 1985, the two leaders did not agree to anything concrete. In the ensuing months, the Soviet military put together a cynical proposal calling for the elimination of nuclear weapons, forwarding it to the Politburo in expectation that it would use such a proposal solely for propaganda purposes. However, Rhodes maintains this was a godsend for Gorbachev and it allowed him to outmanoeuvre any military opposition to his plans for nuclear disarmament.[65] The very fact that Gorbachev had to do this indicated the influence of the Soviet military-industrial complex over the Soviet leadership. At their next meeting in Reykjavik, Gorbachev and Reagan came close to eliminating strategic nuclear weapons , creating an INF treaty in Europe, and a comprehensive test ban treaty with intrusive inspections (which would allow for verification), though Reagan's SDI proved to be a stumbling block. Rhodes tries

[64] Ibid., 167-168. The USSR took Reagan's evil empire rhetoric seriously and became paranoid about the possibility of an American attack. Adding to this sense of insecurity were the disruptive events of 1983, in particular NATO's Able Archer exercises and the Soviet shooting down of Korean Airlines flight 007.
[65] Ibid., 215-216.

to portray this summit as a momentous occasion, emphasizing Gorbachev's views that the meeting "...allowed us to look over the horizon."[66]

For Rhodes, Reykjavik was the key event of the Gorbachev-Reagan diplomatic relationship, and he spends the beginning of the next chapter nostalgically reflecting on the possibilities of this summit's proposals. Following this, he quickly goes over the INF, CFE, and START treaties; his conclusion points out that the delayed costs of the arms race are only now starting to become apparent. Not long after the signing of the START-1 treaty, the USSR had ceased to exist. The newly independent Soviet successor states would soon face a multitude of overlapping security issues.

Focusing on this period, Ruth Deyermond, in *Security and Sovereignty in the Former Soviet Union*, concentrates not only on the process by which Ukraine dealt with its nuclear arsenal, but also other security issues involving Russia's relations with Georgia and Belarus. She argues that in order to understand properly the evolution of security relations between these new states and the conflicts that erupted, one must examine how different definitions of sovereignty came into conflict following the collapse of the Soviet Union in 1991.[67] Ultimately, Ukraine and Georgia based their definition of sovereignty on those widely used in the West, such as the inviolability of borders and equality under international law. In contrast, Belarus and Russia continued to approach the notion of autonomy using a Soviet model of state sovereignty. In general, post-Soviet states based their declarations of independence on the Western model of

[66] Ibid., 269.
[67] Ruth Deyermond, *Security and Sovereignty in the Former Soviet Union* (London: Lynne Rienner Publishers Inc., 2008), 1-2.

sovereignty, whereas ensuing relations amongst these states was in many respects dictated by the legacy of Soviet beliefs and practices. The defining characteristics of the Western and Soviet models of sovereignty are explored below.

In the second part of *Security and Sovereignty,* Deyermond elaborates the differing stances on sovereignty that emerged among post-Soviet states. Ukraine, the most successful state in terms of having its views and demands implemented within the framework of the CIS, took a decidedly Western interpretation in how it defined its sovereignty. Deyermond points out that there is no one set definition present in the Western political tradition that can absolutely define sovereignty. However, she does point out that most definitions share several commonalities, namely that: sovereignty is often founded upon a people or nation; that the existence or raison d'être of the state is derived from these groups; that the power derived from this, both in terms of internal and external sovereignty - though sometimes shared in some spheres with sub-state actors - ultimately resides in a centralized government; and finally, that on the international level all states are equal.[68] The Soviet model, though superficially similar to that produced through the Western political tradition, had several profound differences. Whereas the Western model held all actors to be equal, the Soviet version in essence allowed for a multiplicity of hierarchy in the application of sovereignty.[69] Deyermond best describes the Soviet model with her Orwellian aphorism that "all states are sovereign, but some states are more sovereign than others."[70] This model was explicitly designed by Soviet ideologists to upset the international order created

[68] Ibid., 19-22.
[69] Ibid., 26.
[70] Ibid., 56.

by the West and in doing so promote conflict and revolution. It was based on the premise that since Western governments were founded on the exploitation of their peoples, their sovereignty was scientifically wrong and inferior to socialists states, which in turn were subordinate to the vanguard of the socialist revolution – the USSR. As for the republics within the USSR, they were accorded unlimited sovereignty and rights on paper, though many of these rights were placed under the stewardship of the central government in order to serve the socialist cause and thus ensure their (Soviet defined) sovereignty.[71] Once the USSR collapsed and Russia declared itself to be the USSR's legal successor, it was only a matter of time before conflict erupted over the division of the Soviet Union's most cherished institution – its vast military, including nuclear weapons.[72] Since Russia viewed itself as the regional hegemon entitled to a deferential sense of sovereignty from its neighbours, it was inevitable that it would enter into conflict with Ukraine, a state with the intentions and means to ensure that it was treated according to Western principles of sovereignty.

In the early years of its independence, Belarus viewed its sovereignty through Soviet inspired lenses; therefore, it had little problem in giving Russia its nuclear weapons. Ukraine's reaction to Russian demands concerning nuclear weapons was radically different. Despite Ukraine making it clear before and after its independence that it would be both a neutral and non-nuclear state, up until 1994 Ukraine persistently maintained that it was the owner and administrator of

[71] Ibid., 34-36.
[72] Ibid., 55-56.

the nuclear weapons situated on its territory after the dissolution of the USSR.[73] According to Deyermond, the reason for this evident paradox has its roots in the legal approaches that Russia and Ukraine took towards the inheritance of the USSR's nuclear weapons. Ukraine maintained that since the Soviet Union no longer existed, each former constituent republic was the inheritor of all Soviet property on its territory, including military assets. This interpretation would maximize the independence and equality of all Soviet successor states. The Russian government stressed that since it had been designated as the nuclear successor state to the USSR (agreed to by Ukraine through the CIS agreement on nuclear weapons of December 1991), then it should handle all nuclear weapons and treaties concerning them.[74] Had Ukraine to conceded to Russian views on the subject, it would have established a precedent by which an outside state could control the national property and internal affairs of the Ukrainian state and in this sense violate Ukraine's Western-based conception of sovereignty. For its part, Russia viewed Ukraine's retention of nuclear weapons as a serious security threat and an impediment to Russia's treaty obligations concerning nuclear weapons.

Further complicating attempts to remove Ukraine's nuclear weapons were the actions of the Ukrainian and Russian parliaments. When irredentist claims by the Russian parliament reached a crescendo in late 1992 and 1993, Deyermond notes, the Ukrainian parliament repeatedly delayed debate on the ratification of START-1 and finally passed it with amendments that still allowed Ukraine to

[73] Ibid., 78.
[74] Ibid.,79-80.

retain its WMDs and not sign the NPT.[75] This deadlock was only resolved in January 1994 when Russia, the United States, and Ukraine signed a trilateral agreement, which ensured Ukraine's desired sovereignty and territorial integrity and the financial backing to remove its nuclear arsenal. This treaty negated the need for the deterrent effect of possessing nuclear weapons.

The other examples Deyermond provides to illustrate the importance of the differing interpretations of sovereignty are the division of the Black Sea Fleet and the issue of former Soviet military bases. One commonality in Russia's approach to the Black Sea was its treatment of both Georgia and Ukraine. Similar to the case with nuclear weapons, Russia believed that it had a prior claim on the fleet due to its pre-eminence within the former Soviet Union and that its jurisdiction also pertained to naval bases on Ukrainian and Georgian territory.[76] Moreover, there were attempts within Russia and the CIS Joint Armed Forces staff to dictate the defence needs of these states and therefore their allocation of the fleet. The strength of Ukraine's internal sovereignty, in comparison to other post-Soviet states, eventually allowed it to receive a nominal 50% of the fleet, whereas the greater instability in Georgia – partially due to its secessionist regions of Abkhazia and North Ossetia – limited what it could do in terms of fighting for concrete claims related to its sovereignty. Consequently, it was deprived of any share in the fleet.[77] When Ukraine and Russia reached an agreement on the Black Sea Fleet in 1997, the issue of Russian military forces in Ukraine was resolved for

[75] Ibid., 73. NPT refers to the Non-proliferation Treaty, which Ukraine agreed to ratify as per the Lisbon Protocol to the START-1 treaty, signed in 1992.
[76] Ibid., 136. Also the port of Sevastopol, the base of the fleet, had been founded by Catherine II—or her statesmen—in 1783 after Russia's annexation of the Crimea. It had no Ukrainian background.
[77] Ibid., 137.

the time being. Though superseded in 2010, this important agreement removed the greatest impediment to the improvement of Russian-Ukrainian relations. As for Belarus and Georgia, Deyermond argues that both cases demonstrated the failure of the Western-based model of sovereignty in relation to Russia.[78] This is true for Belarus simply because during the 1990s, in keeping with a Soviet concept of sovereignty, it had sacrificed some of its control over defence-related issues to Russia. Georgia's sovereignty was compromised by the fact that it could only remove Russian troops from its territory by caving in to Russian counter-demands or through a westward reorientation of Georgian foreign policy and the ensuing funding of Georgian forces by the United States.[79] In both cases, Georgia was unable to implement its defence plans and in the case of its capitulation to Russian demands, force foreign troops off its territory. This failure to remove foreign troops is a clear indicator by Western standards of weak state-sovereignty. Deyermond concludes by pointing out that the conception of sovereignty is only part of a large list of factors, including defence priorities and economics, which have influenced relations within the post-Soviet republics.

The National Institute of Strategic Studies (NISS), a section of the Council of National Security and Defence of Ukraine, is a presidential advisory body that provides analysis of and feedback on Ukrainian foreign policy, as well as submitting recommendations to the President and Ukrainian legislators.[80] Hryhoriy M. Perepelytsia, in his NISS publication *Beziadernyy status i*

[78] Ibid., 179.
[79] Ibid., 147, 180-181.
[80] "The Institute's Mission and Tasks," *The National Institute of Strategic Studies*, accessed 28/09/2013, http://en.niss.gov.ua/

natsional'na bezpeka Ukrainy (Non-nuclear status and the national security of Ukraine) analyzes the factors that influenced Ukraine's nuclear disarmament and the foreign policy options available to a non-nuclear Ukraine. Perepelytsia begins his discussion by pointing out the numerous challenges facing Ukraine in terms of its position on the international stage. Russia's historic links with Ukraine and the perceived loss of a vital part of Russian nationhood, combined with the fact that most of the USSR's air defences and much of its military-industrial complex were based on Ukrainian and Belarusian territory, put Ukraine in a precarious position. Complicating the matter was that Ukraine relied on Russia for 90% of its energy needs and had little diplomatic clout in a Europe ignorant of its existence.[81] Without outside help, an isolated Ukraine had a greater risk of being reintegrated into Russia. In order to avoid antagonizing Russia and ensure its defence, Ukraine declared itself a neutral state and attempted the establishment of a nuclear free zone in Central and Eastern Europe.[82] Perepelytsia then examines the legal methods by which a state could accomplish this, such as passing a law in its parliament or submitting a declaration of neutrality to the United Nations.

Once neutrality had been established, Ukraine's next major problem was the lack of government commitment to funding the armed forces and clearly setting out a defensive paradigm around which the armed forces could structure themselves. The poor state of the Ukrainian economy had serious repercussions for Ukraine's armed forces and the industries that supplied them. For example,

[81] H.M Perepelytsia, *Beziadernyy status i natsional'na bezpeka Ukrainy* (Non-nuclear status and the national security of Ukraine), (Kyiv: Natsional'nyy instytut stratehichnykh doslidzhen'[National institute of strategic studies], 1998), 5-6.
[82] Ibid. Perepelytsia provides a step by step program for the creation of this non-nuclear zone on pages 56-66.

there were 150,000 Ukrainian officers in the Soviet armed forces when the USSR collapsed. Since the new state had a dire lack of Ukrainian officers, these men could have played an important role in the development of the nascent Ukrainian military. However, only 18,000 returned to Ukraine, and of these, half left due to poor pay and equally poor working conditions. Even state plans to reduce the size of the army failed due to lack of funds and political will.[83] Ukraine's defence industries relied on Russian inputs and the products of these factories were mostly equipment with which Ukraine was already saturated, such as tanks.[84]

Perepelytsia then briefly examines the series of treaties through which Ukraine de-nuclearized itself. He explains that the legal basis on which Ukrainian politicians justified Ukraine's retention of nuclear weapons can be found in the wording of the Lisbon Protocol and the Non-Proliferation Treaty (NPT) to which Ukraine would be obligated.[85] He also points out that Ukrainian politicians were responding to the threat of Russian irredentism. Ultimately, Perepelystsia stresses the failure of these agreements to ensure fully Ukraine's independence, mostly because the commitments made in the Trilateral Agreement and the Budapest Memorandum were not legally binding in the sense that the parliaments of the signatories did not have to ratify them.[86] Following this discussion, Ukraine's foreign affairs are examined more broadly. Were Ukraine to join NATO, the author suggests, not only would its security be greatly enhanced, but so too would its economy. Perepelytsia notes that since Spain joined NATO in 1982 it has

[83] Ibid., 10-12.
[84] Ibid., 13-15.
[85] Ibid., 17-18.
[86] Ibid.,23.

received roughly $160 billion in foreign investment.[87] Though there would be undeniable benefits to such a move, it would undoubtedly antagonize Russia and many Ukrainians, particularly given the conflict Ukraine and Russia were experiencing over the Black Sea Fleet. It was deemed unlikely by Perepelytsia that Russia would ever relinquish its control over the entire Black Sea and Caucasus region given that Russian influence was waning in Central Asia and also because the Black Sea provided strategic access to world waters. This access was absolutely necessary if Russia wished to continue viewing itself as a regional power.[88]

From the Black Sea and relations with NATO, Perepelytsia moves on to an examination of Ukraine's relations - both present and future – with regional neighbours. In the coming years, it would be necessary for Ukraine to do its best to stabilize (through peacekeeping) the political situations in Georgia, Azerbaijan, and Moldova and eventually create an alliance system with them. Another option is the forging of closer ties with two of Ukraine's most important neighbours with similar strategic interests – Poland and Turkey.[89] Perhaps the most important aim of Ukraine during the 1990s was the forging of closer ties with the USA. However, this could only be accomplished in a stable and peaceful Eastern Europe.[90] Following an explanation of the potential benefits of these prospective alliances, Perepelytsia categorizes, in the driest of ways (charts), the possible threats Ukraine might face in the future. He concludes by stressing that Ukraine's

[87] Ibid.,28.
[88] Ibid., 40.
[89] Ibid., 44-46
[90] Ibid., 73.

security assurances obtained during the 1990s are superficial at best and that the main requirement for Ukraine's new defensive model would centre around flexibility.[91]

Steven Pifer, on behalf of the Brookings Institute, wrote "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons" as an easily accessible summary of the processes that led up to the Trilateral Agreement and with it the end of overt nuclear proliferation in the former USSR. Following an executive summary of his paper, Pifer, the former US ambassador to Ukraine, explains the dominant interests of the USA, Russia, and Ukraine during the early 1990s. American goals could be summed up by the State Department motto at the time: "it's the nukes, stupid."[92] In other words, the USA was most concerned with the proliferation of nuclear weapons in some of the new states of the former Soviet Union. Russia originally wanted to maintain joint command of the nuclear weapons through the CIS, but this plan quickly fell apart. It then insisted that all nuclear weapons be transferred to Russian control.[93] Ukraine consistently declared, even before the fall of the USSR, that it intended to be a non-nuclear state. However, political opposition from nationalists in the Rada during the years 1992-93 prevented the implementation of these declarations. In a meeting with the 43rd Strategic Rocket Forces, it quickly became apparent to the Ukrainian leadership that the technical, economic, and diplomatic costs of nuclear weapons would be much too high. Eventually, the conditions of Ukrainian nuclear

[91] Ibid.,100-103.
[92] Steven Pifer, "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons," *Brookings Arms Control Series* 6 (2011): 3.
[93] Ibid., 4.

disarmament would come down to a few main points: assurances of Ukrainian territorial integrity and sovereignty; compensation for the highly enriched uranium in its weapons; financial aid for the dismemberment of Ukraine's weaponized nuclear infrastructure; and finally, the question under what conditions would Ukraine's weapons be destroyed.[94]

Despite assurances made by all CIS members that nuclear weapons would fall under joint command, Ukraine in April 1992 began calling for administrative control of the weapons on its territory. Such an action unsettled officials in Moscow and Washington. The US followed Secretary of State James Brubaker's recommendation that it would not be in American interests if Russia and its neighbours were armed with nuclear weapons.[95] In May 1992 the Lisbon Protocol was signed, thereby forcing Ukraine to reduce its stockpile of strategic weapons and also obliging it to become a signatory to the NPT at a later date. However begrudgingly, Ukraine had begun the process of nuclear disarmament. Throughout 1993, Russian-Ukrainian bilateral negotiations halted and relations deteriorated due to Ukraine's insistence on its ownership of the weapons on its territory and the Russian parliament's insistence in July 1993 that Sevastopol was a Russian city. It was in this hostile climate, Pifer notes, that the ensuing Russian-Ukrainian talks, in Massandra, Crimea, collapsed in August.

In order to ensure that future negotiations succeeded, the US decided that it would have to involve itself directly in a new round of negotiations. An important decision was also made regarding the legal nature of the upcoming

[94] Ibid., 7-8.
[95] Ibid., 10.

talks: in order to avoid Senate interference, the US only promised Ukraine defence assurances, not guarantees, which would have required Senate ratification.[96] Despite the setback of the Ukrainian Rada ratifying START-1 with some unfortunate caveats – it essentially renounced the Lisbon Protocol's specifications for Ukraine's signing of the NPT and the scale of strategic disarmament – American, Russian, and Ukrainian officials worked through December to create a treaty of mutual satisfaction. When it was signed on January 14, 1994, Pifer writes, Ukraine had finally agreed to the acceptance of a timetable for the removal of its weapons. The concrete timetable itself would be decided in February and shortly thereafter nuclear weapons were shipped to Russia in exchange for useable fuel rods for Ukrainian nuclear power plants. Though the Americans were ambivalent on the totality of Ukraine's ownership of the weapons, it agreed that Kyiv was entitled to the economic benefits of the uranium in the warheads.

Furthermore, the author observes, both Ukraine and Russia agreed to the wording of the document that stressed the assurance of Ukraine's sovereignty, not its guarantee. This point was stressed since the Ukrainian and Russian languages only had one word for guarantee.[97] This was followed up by further security assurances in the December 1995 Budapest Memorandum, the only problem being that the Ukrainian Rada, before the Memorandum, had ratified the NPT as a nuclear state. The United States, Britain, and Russia chose to ignore this fact and

[96] Ibid., 17.
[97] Ibid., 21-24.

interpret Ukraine's signing as that of a non-nuclear state.[98] Pifer concludes with a discussion of the lessons learned by this entire ordeal. First, he notes that the Trilateral Agreement provided solutions to the needs of all three involved parties. Second, there was the importance of practicality: all sides, despite some tense moments, were in the end willing to listen to the needs of the others and seriously consider compromises. By bringing the presidents of each government together for a fixed meeting, the Trilateral Agreement forced the bureaucracies of each state to work more quickly and efficiently than usual. American financial aid, through the Nunn-Lugar program, facilitated negotiations at crucial moments.[99] These lessons, according to Pifer, are still applicable today to such nations as North Korea and Iran.

To sum up these analyses, the Soviet nuclear program was born in the intense atmosphere of the immediate post-war years as Western and Soviet relations were rapidly deteriorating. As Holloway shows, Stalin's conviction that the atomic bomb was necessary to ensure future Soviet interests and security resulted in the project getting priority over reconstruction of the war-ravaged USSR. Gordin, in more detail than Holloway, examines how the Soviets frustrated international efforts at arms control, because of the importance of the bomb to the USSR. Medvedev's study helped show the secretive nature of the Soviet nuclear industry and the presence of another major nuclear disaster in the USSR. Catudal's analysis provides a thorough examination of the changing nature of Soviet strategic and nuclear armaments to the Gorbachev era, as well as

[98] Ibid., 26-27
[99] Ibid., 32-30.

touching upon visible changes in Soviet military doctrine and strategy. Paul Josephson's book on Soviet nuclear power, despite containing a fair amount of jargon, makes it apparent that the Soviet nuclear energy program was flawed in several key areas from its very inception, the price of this being long-term environmental degradation. Josephson is also the only author among those discussed to provide an in-depth analysis of Ukrainian contributions to Soviet science, though Holloway touches upon this topic as well. Richard Rhodes' excellent account of the arms race concentrates on the Gorbachev-Reagan diplomatic dynamic, though he also makes it evident that large nuclear stockpiles are inherently foolish.

Viewed together, what can be gleaned from these books with regard to independent Ukraine? The results of the Gorbachev-era arms treaties reduced the size of the Soviet military, both conventionally and strategically. Because of the presence of many nuclear reactors and missile silos on its soil, Ukraine had the material/physical ability to produce nuclear weapons. It also had the necessary theoretical know-how to do so. Deyermond's succinct demonstration of the conflicting definitions of sovereignty shows the difficult position in which post-Soviet states found themselves in 1992 and during the ensuing decade. H.M Perepelytsia's analysis of Ukraine's international position helps clarify how Ukraine's defence policy would evolve throughout the late 1990s and 2000s. Finally, Steven Pifer systematically constructs the process by which Ukraine finally removed its nuclear weapons. Taken together, a rough narrative of the background of the Soviet nuclear industry helps to show how Ukraine came to

find itself as a nuclear power that was obliged to renounce its own weapons. However, this loose analysis contains many gaps and blank spots. None of the above studies provide close and detailed analyses of the process of disarmament and the historical development of a nuclear and non-nuclear Ukraine. They mostly treat their analysis of Ukraine as parts of overarching studies. As such, they tend to have a greater reliance on secondary sources. No research has been thus far on the state of what remains of Ukraine's potential weapons-making nuclear materials. This study will now examine Ukraine's years as a nuclear power by examining many of the treaties signed during this period. It will then explore what has been done since 1994 to ensure that Ukraine remains nuclear weapons free.

Chapter 2: A Difficult Situation

Ukraine's transition from a constituent republic of the Soviet Union to an independent state was not a straightforward process. On a strictly legal level, Ukraine encountered few problems, except for some border disputes with Romania. However, Ukraine's independence resulted in numerous disputes in the realm of foreign relations, particularly with its largest neighbour, Russia. Following the disintegration of the USSR, Russia emerged as the most powerful of the Soviet successor states, with Ukraine behind in terms of military and economic potential. This chapter recounts and explores the difficulties that emerged between Ukraine and Russia and how these difficulties created a rationale for Ukraine to retain its inherited nuclear arsenal. This discussion will begin with an examination of Ukraine's declaration of sovereignty, followed by the agreements made amongst the former Soviet states pertaining to the dissolution of the USSR and the establishment of the CIS. Next, the territorial disputes that emerged between Russia and Ukraine will be outlined – these revolved mainly around the Crimea, and in particular the city of Sevastopol. Intimately related to these territorial questions was the question of the Black Sea Fleet, whose division was of great importance for both Russia and Ukraine. Finally, Ukraine and Russia's pre-1994 attempts at negotiations over the Black Sea Fleet will be explored, demonstrating that though some compromises were reached, overlapping factors (linked to the economy and Ukraine's insistence on maintaining its own nuclear forces) impeded the signing of any meaningful agreements.

After Gorbachev came to power in 1985, he launched his vaunted reform program of *perestroika* and *glasnost,* which did not begin in earnest until 1987. CIA projections from that year speculated that if Gorbachev could not deliver on his proposed changes to the longstanding Soviet economic system, then the result would be "...confusion, economic disruption, and worker discontent [which would] give potential opponents a platform on which to stand."[100] As these projections became reality, Boris Yeltsin became Gorbachev's greatest political adversary. Eventually Yeltsin established his own political base in the RSFSR. Likewise, the other republics began to pull away from the centre. In mid-July 1990, the newly elected Ukrainian parliament declared Ukraine's sovereignty and elected Leonid D. Kravchuk as its chairman. This was followed by a declaration of independence in August 1991, following the failed putsch in Moscow (discussed below).[101]

Ukraine's declaration of sovereignty stipulated several important points that would have important consequences for the future, particularly in relation to the republic's foreign affairs. Ukraine's declaration of sovereignty proclaimed the state's "...independence and equality in foreign relations...," whereas Article IX declared that Ukraine would maintain a permanent state of neutrality and abstain

[100] U.S. Central Intelligence Agency, "Gorbachev: Steering the USSR into the 1990s," in *CIA's Analysis of the Soviet Union: 1947-1991,* eds. Gerald K. Haines and Robert E. Leggett (Washington DC: Center for the Study of Intelligence, 2001), 221.

[101] On August 19, 1991, an eight-man committee, fearing where the failed policies of Gorbachev would lead the USSR, put Gorbachev under house arrest while he was on vacation in the Crimea. While the putsch was under way, Ukraine's leadership remained uncommitted and neutral in its deliberations with both the emergency committee and with forces opposed to it, led by Boris Yeltsin, the newly elected president of Russia.

from joining any military blocs.[102] The same article also asserts that Ukraine will neither accept, produce, nor purchase nuclear weapons, which nominally showed the world Ukraine's ambition to be a non-nuclear state. Article X dealt with Ukraine becoming a subject of international law and how its own legislation would in the future form its adherence to international agreements. Article X also called for the non-interference of Ukraine in the affairs of other post-Soviet states and vice-versa.[103]

In November 1990, Kravchuk and Yeltsin met in Kiev and agreed to recognize the sovereignty of each other's state.[104] A similar document had been signed previously, during the summer of 1990 - the "Declaration of the Principles of Inter-State Relations between Ukraine and the RSFSR Based on the Declarations of State Sovereignty"; however, it was only signed between representatives of each state's parliaments. Among its stated aims it called for both states to be subject to international law and for non-interference in each other's affairs.[105] As Gorbachev vacillated between reform and retrenchment, members of his own politburo, the KGB, and the internal police, launched a putsch against him in August 1991 (see footnote 101). Though it failed, Gorbachev's political power never recovered and his efforts at creating a new union treaty (and thus a new Soviet state) were severely undermined by

[102] Declaration of State Sovereignty of Ukraine, Article IX, *Verkhovna Rada* #55 X-II (1990), accessed 28/09/2013, http://static.rada.gov.ua/site/postanova_eng/Declaration_of_State_Sovereignty_of_Ukraine_rev1.htm
[103] Ibid., Article X.
[104] John Morrison, "Pereyaslav and After: The Russian-Ukrainian Relationship," *International Affairs* 69 (1993): 678.
[105] Roman Solchanyk, *Ukraine and Russia: the Post-Soviet Transition* (London: Rowman & Littlefield, 2001), 35.

negotiations that occurred between the leaders of Belarus, Russia, and Ukraine in early December near Brest. Later, all republics – except Georgia and the Baltic States – would reaffirm the decisions made earlier in the month.

The first of these agreements took place on December 8, 1991 and is commonly referred to as the Belavezha Accords. Under the preamble of this agreement, Belarus, Russia, and Ukraine, "...conclude that the USSR has ceased to exist as a subject of international law and a geopolitical reality," whereas Article I formed the Commonwealth of Independent States (CIS).[106] In keeping with the spirit of the November 1990 meeting between Yeltsin and Kravchuk in Kiev, Article IV recognized the territorial integrity of the signatory states and the inviolability of their borders. Article VI outlined how the armed forces of the USSR were to be dealt with, specifically how the CIS would deal with the Soviet Union's strategic weapons. These nuclear weapons, both tactical and strategic, would be placed under a unified command; moreover, the signatories would jointly ensure the material and social provisions of the strategic armed forces.[107] This last point provided a conceivable basis on which Ukraine would later proclaim administrative control over the nuclear weapons located on its territory.[108]

The sister agreement to the Belavezha Accords was the Alma-Ata Declaration, which was signed December 21, 1991. With the addition of several other republics to the CIS – and by implication their withdrawal from the Union –

[106]Minsk Agreement, Belarus, Russia, Ukraine, Preamble; Article I, December 8th 1991, accessed 28/09/2013, http://lcweb2.loc.gov/frd/cs/belarus/by_appnb.html
[107] Ibid., Article VI.
[108] Administrative control can be viewed as Ukraine assuming the day-to-day maintenance of the weapons and its insistence that the officers in charge of these weapons swear loyalty to Ukraine.

the Soviet Union de facto ceased to exist. It would legally terminate itself only a few days later. Outside of its initial preamble and declaration, the Alma-Ata Declaration was divided into three sections. The first section dealt with the mechanics of how the CIS would function; the second section with strategic forces; and the third with the armed forces and border troops. Of importance to Ukraine were the Articles in the strategic forces section, namely Articles II, III, and IV. Article II called for signatory states to adhere to treaties signed by the Soviet Union and to participate in efforts to reduce the size of their strategic forces.[109] The third Article called again for the joint command of strategic weapons, while Article IV dealt with Ukraine more specifically. It specified that the decision to use the weapons in question was to be jointly reached by the heads of state of Belarus, Kazakhstan, Russia, and Ukraine – in consultation with the other members of the CIS.[110] In principle, this arrangement seemed sound, though in the event of any heated conflict it would have been likely that the decision to use strategic weapons would be dictated solely by Russia. Article IV also outlined that Ukraine was to rid itself of the tactical nuclear weapons on its territory by July 1, 1992 and all strategic nuclear weapons by 1994.[111]

In terms of Ukraine's Declaration of Sovereignty and the somewhat contradictory Belavezha and Alma Ata agreements, it seemed that independent Ukraine was destined to be a non-nuclear state. It had proclaimed for itself non-nuclear status and then proceeded to sign several documents that essentially

[109] Alma-Ata Declaration, "Agreement on Strategic Forces," Article II, December 21, 1991, accessed 28/09/2013, http://lcweb2.loc.gov/frd/cs/belarus/by_appnc.html
[110] Ibid., Articles III and IV.
[111] Ibid. Tactical nuclear weapons tend to be of shorter range and less yield than their strategic (often intercontinental) counterparts. Tactical weapons are primarily designed for battlefield use.

reaffirmed this commitment. However, by the spring of 1992 it had become apparent that the denuclearization of Ukraine would not be a straightforward process. One of the benefits of Ukraine's declaration of sovereignty was that it affirmed the state's presence on the international stage. It was particularly concerned with gaining international recognition, though by 1993 145 countries had recognized Ukraine and 100 had established diplomatic relations with it.[112] With this international recognition came the unspoken expectation that Ukraine would also accede to international norms, such as adhering to written commitments (treaties, accords, etc.). In response to repeated Russian claims on Ukrainian territory (discussed below), Ukraine halted the shipment of its tactical nuclear weapons to Russia in spring 1992. In doing so, Ukraine was violating some of the commitments on which it was founded. Ukraine's decision to keep Soviet strategic weapons ran the risk of making Ukraine an international pariah, in addition to worsening Ukraine's relations with other CIS members. By 1993, Ukraine's image was rather tarnished. In response to articles written by Steven Miller and John Mearsheimer in *Foreign Affairs*, Ukrainian statesmen responded, seeking to rectify perceived shortcomings in Western scholarship on the subject of nuclear weapons and to outline the position of Ukraine.[113] Given the potential

[112] Anatoli Zlenko, "The Development of the Foreign Policy of Ukraine," in *Towards a New Ukraine I: Ukraine and the New World Order, 1991-1996*, eds. Theofil Kris et al. (Ottawa: Chair of Ukrainian Studies-University of Ottawa, 1997): 86-87.

[113] Yuriy I. Kostenko, Volodymyr Vasylenko and Serhiy Pirozhkov, "Kiev and the Bomb: Ukrainians Reply," *Foreign Affairs* 72 (1993): 183-186. Yuriy Kostenko was Ukrainian Minister for the Protection of the Environment; Volodymyr Vasylenko was the ambassador to Belgium; and Serhiy Pirozhkov was the Director of the National Institute for Strategic Studies; John Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72 (1993): 50-66; Steven E. Miller, "The Case Against a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72 (1993): 67-80.

risks, why then did Ukraine persist in keeping the nuclear weapons located on its territory following the Soviet Union's collapse?

One line of reasoning concerned Ukraine's geo-political situation. Leonid Kravchuk, elected Ukraine's first president in December 1991, recognized the threat posed to Ukraine if nationalistic politicians were to replace Yeltsin as Russian president.[114] This predicament derived from the long and complicated interrelated histories of both Russia and Ukraine. Because of the cultural similarities and geographic proximity of the two countries, many Russians tended to view Ukraine as an integral part of their nation and even its identity. Since the 1930s, the Soviet Union employed the same historical narrative used in the Tsarist Empire: Ukraine, Russia, and Belarus all shared a common historical origin and nationhood that dated back to the founding of Kievan Rus' in the tenth century.[115] Once the Rus' kingdom collapsed, the Ukrainian and Russian brother nations would not be reunited until 1654, following the signing of the Treaty of Pereyaslav by Bohdan Khmelnyts'kyi, who pledged allegiance to the Tsar in return for military aid against the Poles. This period also marked the beginning of the Cossacks playing an important role in the formation of Ukrainian identity.[116] Over the next century, this treaty would lead to gradual assimilation of the Ukrainian lands into the Russian Empire and of the Cossack elite into the Russian

[114] John Morrison, "Pereyaslav and After: The Russian-Ukrainian Relationship," *International Affairs* 69 (1993): 683

[115] Andreas Kappeler, "'Great Russians' and 'Little Russians': Russian-Ukrainian Relations and Perceptions in Historical Perspective," in *The Donald W. Treadgold Papers in Russian, East European, and Central Asian Studies* (Seattle, WA: University of Washington Press, 2003), 22-24.

[116] Mykola Zhulyns'kyi, "L'époque Cosaque, sujet artistique et de développement de la conscience nationale," in *Les Cosaques de l'Ukraine : Rôle historique représentations littéraires et artistique*, Eds. Michel Cadot and Emile Kruba (Paris: Presse de la Sorbonne Nouvelle, 1995): 167-169.

nobility. The history of Ukraine for the next two centuries would be marked by its struggle to re-unite itself completely with the Great Russian nation. Only through Soviet rule was this accomplished and in celebration of this achievement, then premier Nikita Khrushchev transferred the traditionally Russian-administered Crimea to Ukraine in 1954 in celebration of the 300th anniversary of the Treaty of Pereyaslav.

Shortly after Ukraine's declaration of independence on 24 August 1991, Boris Yeltsin's press office released a statement that claimed that Russia maintained the right to review its borders with any non-Baltic state intent on leaving the USSR.[117] When pressed on what this signified, Yeltsin's press secretary stated that the release referred to the Russian populations located in northern Kazakhstan, the Donbas, and the Crimea.[118] Given that the Donbas and Crimea were Ukrainian territories, such claims emanating from Russia were particularly worrisome to Ukrainian politicians. On the eve of Ukraine's referendum on independence in early December 1991, renowned Russian author Aleksandr Solzhenitsyn remarked that Ukraine's independence should not be decided on a national level, but instead on a regional (*oblast'*) level.[119] Such a viewpoint was indicative of many Russians' unwillingness to see Ukraine as an independent entity. Another leading Russian figure to express skepticism concerning Ukraine's territorial integrity was Moscow's mayor, Yuri Luzhkov, who consistently voiced his opinion that the 1954 transfer of the Crimea was

[117] Roman Solchanyk, , "The Politics of State Building: Centre-Periphery Relations in Post-Soviet Ukraine," *Europe-Asia Studies* 46 (1994): 46-48, accessed 18/05/2013 http://www.jstor.org/stable/153030
[118] Ibid.
[119] Ibid., 48.

illegal and that Sevastopol was a Russian city. As a result of his regular pressing of these claims, he was later banned from entering Ukraine.[120]

Such viewpoints were fairly widespread in the Russian Federation and had a significant impact on the actions of Ukraine's president and parliament. The most immediate example of how Ukraine attempted to assert, and later ensure, its independence vis a vis Russia can be seen in the approach the two nations took towards the CIS. The Ukrainian leadership, under pressure from nationalist Ukrainian parliamentarians such as Vyacheslav Chornovil, soon began to perceive the CIS as a mechanism by which Ukraine could divorce itself from the remaining states of the former USSR.[121] After the Belavezha agreement, Ukraine's *Verkhovna Rada* approved the treaty only after reaffirming the inviolability of Ukraine's borders and its right to maintain its own armed forces.[122] By comparison, Russia's Congress of People's Deputies announced in April 1992 that it was dissatisfied with the rate of economic, political, and military integration. Later that year, Russian lawmakers would suggest a confederation of sorts between the parliaments of the former Soviet republics.[123] After independence, Ukraine made it clear that it would maintain its own armed forces; any attempt at CIS military integration was viewed as a logical step towards a

[120] "Ukraine Forbids Moscow Mayor to Enter its Territory," *UNIAN*, May 12, 2008, accessed 28/09/2013, http://www.unian.info/news/250465-ukraine-forbids-moscow-mayor-to-enter-its-territory.html. Luzhkov was banned in 2008.
[121] John Morrison, 689. Chornovil was a Ukrainian nationalists, human rights advocate, and dissident journalist during the Soviet period. He would later become the leader of Rukh (Movement), a right-wing Ukrainian political party, in 1989. In 1991, he would run against Kravchuk in the Ukrainian presidential elections. See Bohdan Nahaylo, *The Ukrainian Resurgence* (Toronto: University of Toronto Press, 1999), 27-31, 88-95. See also "Vyacheslav Chornovil: a Biography," *The Ukrainian Weekly*, April 4, 1999, accessed 28/09/2013, http://www.ukrweekly.com/old/archive/1999/149905.shtml
[122] Roman Solchanyk, "Ukraine, Russia and the CIS," *Harvard Ukrainian Studies* 20 (1996): 28, accessed 28/09/2013, http://www.jstor.org/stable/41036683
[123] Ibid.

new supranational state. As Kravchuk announced on the topic of joint CIS forces, "the option of maintaining unified CIS armed forces does not exist...You can only have unified forces in a unified state."[124] As such, Ukraine never signed the CIS's Charter and Collective Security Treaty.

In addition to diverging views on the future of the CIS, the largest stumbling block in Russian-Ukrainian relations was the Crimea and the divisive issues of the Black Sea Fleet (BSF) and Sevastopol. From the outset, the division of the fleet promised to be a problematic process when First Deputy Commander of the (defunct former Soviet) navy, Admiral Kapitanets' issued an order calling on loyal members of the navy to suppress the propaganda of Ukrainian nationalists who threatened the stability of the service.[125] Further, Russia argued (according to the Minsk agreement) that since the BSF had nuclear capabilities, it must be placed under joint CIS command as a strategic force, while other Russian statements simply implied that the BSF was Russian property.[126] Either case would have been inimical to Ukraine's attempts at establishing its sovereignty and maintaining primacy in its own internal affairs. Ukraine's claim on the BSF revolved around financial interpretations: for example, since it inherited 16% of Soviet debts, it should also inherit 16% of Soviet assets; other claims were based

[124] Originally quoted from TASS International Service, 14 February 1992, *FBIS-SOV-92-031*, 14. Found in Ruth Deyermond, *Security and Sovereignty in the Former Soviet Union* (London: Lynne Rienner Publishers, 2008), 48.
[125] For excerpts of Kapitanets'' order No. 729/353, see Bohdan Yakymovych, *Zbroyni syly Ukrainy: narys istorii* (The armed forces of Ukraine: a historical outline), (L'viv: Instytut ukrainoznavstva im. I. Kryp'yakevycha national'noi akademii nauk Ukrainy 'Prosvita' [Institute of Ukrainian studies of the national academy of sciences of Ukraine 'Prosvita,' 1996), 268-269; See also Serhiy Sokolyuk, "Peredumovy stovorennya viys'kovo-mors'kykh syl Ukrainy (Prerequisites for the creation of the naval forces of Ukraine)," *Sevastopol's'ka orhanizatsia spil'ky ofitseriv Ukrainy* (The Sevastopol organization of the union of Ukrainian officers), accessed 28/09/2013, http://sevsou.io.ua/s387142/peredumovi_stvorennya_viyskovo-morskih_sil_ukraeni_1989_-_kviten_1992_rr.
[126] Saunders, 114.

on Ukraine having constructed 20-25% of the Soviet navy's vessels and as a result, it should receive the BSF, which amounted to roughly 10% of the Soviet navy's former size.[127] Nonetheless, Ukraine allowed its officers and servicemen to choose under which navy they wished to serve, a Ukrainian one or its CIS/Russian equivalent. Until a more permanent agreement could be reached, Russia and Ukraine decided that the fleet would be placed under joint command, postponing the actual splitting of the fleet (in theory) until after 1995.

Interwoven with the division of the fleet was the issue of its Sevastopol base. In the summer of 1993, Kravchuk and Yeltsin decided to split the fleet 50/50, though this compromise did not fully meet the needs of either side, and the Russian parliament voted to declare Sevastopol Russian property.[128] Yeltsin promptly disowned this decision, which only partially assuaged the fears of Ukraine's leadership – both executive and legislative.[129] By this point Yeltsin did not advocate the seizure of Ukrainian territories, though the Russian parliament evidently still did. With the threats of Russian MPs still fresh in the minds of many Ukrainian parliamentarians, Ukraine ratified the START-1 treaty with many qualifications later that fall and in this way still retained its nuclear weapons. This topic will be explored in more detail below. As for the Crimea, local politicians and the Ukrainian centre would reach a series of compromises in 1992-94 that would keep the peninsula in Ukraine as an autonomous republic. During early 1992, the Crimean parliament declared that Crimea was a republic and that it would henceforth be self-governing. However, Crimea's claims for self-

[127] Ibid., 115.
[128] Morrison, 692-693.
[129] Ibid., 693.

governance were dropped in May 1992 and a clause was inserted into the newly created Crimean constitution affirming that it remained a part of Ukraine. In early 1994, Crimea again pushed for more autonomy by electing its own president, Yuri Meshkov, though within a year Ukraine's *Verkhovna Rada* passed legislation that annulled the Crimean presidency and constitution.[130]

Though initially it seemed Ukraine had distanced itself from the CIS and its joint military, it could not fully extradite itself because of its economic problems. Tensions between Ukraine and Russia were reduced when Ukraine's new President Leonid Kuchma (in office from July 1994) pushed for a new program of market reforms and in the process Ukraine came to see some value in maintaining economic ties with the CIS.[131] However, these new attempts at reforming Ukraine's economy would do little to alleviate the issue of Ukraine's negative balance of payments with Russia – by the time the next round of major BSF negotiations took place in the Crimean town of Massandra, Ukraine owed Russia $2.5 billion in outstanding debts for Russian gas imports.[132] The Massandra agreement, which was signed on 3 September 1993, came from the fifth meeting in two years between the Ukrainian and Russian leaders concerning the BSF. Though many of the meeting's points would remain obscure and unimplemented, particularly those concerning the transfer of strategic weapons, Ukraine agreed to give Russia part of its portion of the BSF in return for a

[130] *Pro skasuvannya Konstytutsii i deyakykh zakoniv Avtonomnoi Respubliky Krym* (About the annulment of the Constitution and of certain laws of the Autonomous Republic of Crimea), 18 March 1995, N 92/95 VR, accessed 28/09/2013, http://zakon1.rada.gov.ua/laws/show/92/95-%D0%B2%D1%80
[131] Roman Solchanyk, "Ukraine, Russia and the CIS," 29.
[132] Morrison, 694.

reduction of the gas debt.[133] This meeting would mark the beginning of a settlement of the BSF dispute, thus paving the way for the 1994 Trilateral Process and the 1997 Treaty of Friendship and Ukraine's complete nuclear disarmament.

This chapter serves as a partial overview of why Ukraine chose to keep the nuclear weapons located on its territory, despite aspiring initially to become a non-nuclear state in the shortest time possible. Leading Russian political and cultural figures, expressing a long-held pan-Russian perspective, refused to accept Ukraine as an independent nation and as such made threatening claims on its territorial integrity and sovereignty. The result of these quasi-jingoistic statements was that Ukraine chose to move away from the concept and practice of creating closer political, cultural, and military links between the non-Baltic Soviet successor states. This can be most cleanly seen in Ukraine's consistent refusal to integrate too closely with the CIS's military structure (it remained only an associate member). The decision to retain its Soviet-era nuclear weapons did not occur in a vacuum and as disagreements occurred between Ukraine and Russia concerning the Black Sea Fleet, it seemed that forces in Ukraine in favour of maintaining a nuclear deterrent would become increasingly powerful. The following section will examine how Ukraine's internal political situation affected its decision to postpone becoming a non-nuclear state. The subsequent chapters will analyze why Ukraine could not afford to maintain nuclear weapons, and what

[133] Celestine Bohlen, "Ukraine Agrees to Allow Russians To Buy Fleet and Destroy Arsenal," *The New York Times*, 4 September 1993, accessed 28/09/2013, http://www.nytimes.com/1993/09/04/world/ukraine-agrees-to-allow-russians-to-buy-fleet-and-destroy-arsenal.html?src=pm; See also F.S Larrabee, "Ukraine's Place in European and Regional Security," *Harvard Ukrainian Studies* 20 (1996): 251.

steps Ukraine, along with Russia and the USA, took to remove strategic weapons from Ukrainian territory.

Chapter 3: Ukrainian Internal Politics

In the previous section, the tensions between post-Soviet Ukraine and the Russian Federation were explored. Difficulties arose over disagreements relating to borders, military hardware, base rights, and differing interpretations on the future of the CIS. This chapter reviews Ukraine's internal political situation during the early 1990s and how constitutional irregularities affected the process of its nuclear disarmament. The legal establishment of the Ukrainian military will be examined in order to demonstrate the priorities of the new Ukrainian state in its quest for security. From here, a short examination of the constitutional powers of the president and of parliament will follow. A survey of the responsibilities of the various bodies in Ukraine's executive and legislative branches will provide a framework around which the dysfunctional nature of Ukraine's parliament (at least until the 1994 elections) can be explained. Finally, an ideological analysis of the two largest voting blocs within the *Verkhovna Rada* will help explain why Ukraine postponed the ratification of the START-1 treaty. Additionally, some of the legal arguments made by Ukrainian lawmakers regarding the treaty will be examined. Because of the divided nature of the Ukrainian political system, any steps taken toward nuclear disarmament could be delayed or obfuscated through antiquated laws or political infighting.

The establishment of Ukraine's armed forces was finalized on 6 December 1991 shortly before the final dissolution of the USSR. The pertinent law, named "Concerning the Armed Forces of Ukraine," called for the Rada to determine the envisaged size, structure, and budgetary needs of Ukraine's armed forces, which

would come into existence the moment the law was adopted.[134] Prior to this legislation, Ukraine had established its own ministry of defence and declared that Soviet military hardware on its territory was under the authority of the Ukrainian Parliament.[135] Initial legislation pertaining to Ukraine's armed forces was therefore essentially logistical in nature, as Ukrainian lawmakers sought to establish the bureaucratic and legal basis upon which the military would be based. Once the law "On the Armed Forces of Ukraine" was finalized, the only other major amendment to occur before the adoption of Ukraine's new constitution was passed in 1993. This amendment clarified in which situations the armed forces could be used. It specified that outside of armed conflict or a presidential decree proclaiming a state of emergency, only the *Verkhovna Rada* could dictate the use of force. The 1993 amendment also called for the state to provide financial and logistical support to military families, in addition to dividing the armed forces into three official branches: the ground forces, the air defence, and the navy.[136] By dividing its armed forces so, the Ukrainian parliament was still nominally adhering to its earlier promises of being a nuclear-free state in that it did not

[134] *Postanova Verkhovna Rada Ukrainy* (Decree of the Supreme Soviet of Ukraine), 6 December 1991, N 1935-XII, "Pro poryadok vvedennya v diyu Zakony Ukrainy 'Pro zbroyni syly Ukrainy'" (Concerning the order of introduction into force of the Law of Ukraine 'Concerning the Armed Forces of Ukraine'), pg 109, accessed 28/09/2013, http://zakon1.rada.gov.ua/laws/show/1935-12

[135] Ministry of Defense of Ukraine, "The Chronicle of Independent Ukraine – Basic Procedures in Defensive Sphere," accessed 28/09/2013, http://www.mil.gov.ua/index.php?lang=en&part=history&sub=chronicle

[136] *Postanova Verkhovna Rada Ukrainy* (Decree of the Parliament of Ukraine), 21 October 1993, N 3548-XII, "Pro vnesennya zmin i dopovnen' do Zakony Ukrainy 'Pro Zbroyni Cyly Ukrainy' (Concerning the introduction of changes and additions to the Law of Ukraine 'Concerning the Armed Forces of Ukraine'"), pg. 421, accessed 28/09/2013, http://zakon1.rada.gov.ua/laws/show/3548-12. For access to the full text of the law "Concerning the Armed Forces of Ukraine," see the following website: http://zakon1.rada.gov.ua/laws/show/1934-12.

create a branch for its strategic rocket forces. This is particularly significant given that 1993 was marked by heightened tensions with Russia.

Beyond the fact that Ukraine did not officially establish a strategic element to its armed forces and that it never passed any major laws pertaining to its nuclear forces, the country was plagued by an inefficient and divided political system. Even prior to the new 1996 constitution, a great deal of thought and debate was put into the nature of Ukraine's state structure – would it be presidential, parliamentarian, or a mixture of both? Until a decision was finally reached, the powers of the president, cabinet, and assembly were in constant flux, thus making it difficult to attain accountability and to pass legislation. By 1993, a consensus was reached that Ukraine would have a semi-presidential or premier-presidential system, meaning that the president could propose legislation, as could the cabinet and assembly, though he would no longer be the supreme executive as in a purely presidential system. Only parliament could oust the cabinet and the prime minister, while the president was only responsible for government policy concerning foreign affairs.[137] This constitutional set-up was contrary to the wishes of Ukraine's first president, Leonid Kravchuk, who believed that "the transition to higher forms of democratic society [was] not possible without the temporary strengthening of statehood."[138] Though parliament could not pass a vote of non confidence against the president, it could delay the president's legislation simply by not passing it. When it came to reviewing government or presidential

[137] Bohdan Harasymiw, *Post-Communist Ukraine* (Toronto: Canadian Institute of Ukrainian Studies, 2002), 60-64.
[138] Ibid., 100. Originally quoted in *Literaturna Ukraina*, 26 November 1992.

legislation, Ukraine in effect did not have a true democratic opposition; instead, parliament acted only as an obstructionist body.[139]

Up until 1996, Ukraine was using a modified version of the 1978 Brezhnev constitution, which created numerous problems.[140] All the articles of this constitution were still in effect when the "new" Ukrainian parliament and administration came to power. Not only did the *Rada* amend the 1978 constitution, it also continued to pass its own law and edicts. The result of this flurry of legislation was a legal landscape flooded with inconsistencies and irrelevant, if not bizarre, laws.[141] Article 114-9 of the amended 1978 constitution states that in the event that the president violates either the constitution or laws of Ukraine, he can be removed by a vote of two-thirds of the members of parliament.[142] The articles outlining the president's responsibilities also indicate that he must "... ensure the defensive capacity, national security and territorial integrity of Ukraine."[143] These articles on their own are perfectly reasonable, though in combination they could have had significant political consequences. If during the early 1990s Ukraine's parliament had been comprised of either more communists or nationalists (enough to push either voting bloc into a strong majority), then either bloc would have had the grounds to oust the president based

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[139] Ibid., 296-297

[140] In 1977, a new constitution was introduced in the Soviet Union. In 1978 a modified version of this constitution would be introduced in each Soviet republic.

[141] Martha B. Trofimenko, "Law as Infrastructure: Overcoming Obstacles to the Development of a Democratic State," in *Society in Transition: Social Change in Ukraine in Western Perspectives*," ed. Wsevolod W. Isajiw (Toronto: Canadian Scholars' Press Inc., 2003), 142.

[142] *Konstytutsia (Osnovnyy Zakon) Ukrains'koi Radyans'koi Sotsialistychnoi Respubliky* (Constitution [Fundamental Law] of the Ukrainian Soviet Socialist Republic), 20 April 1978, N 888-IX, Article 114-9, accessed 28/09/2013, http://zakon1.rada.gov.ua/laws/show/888-09/page2?text=%EE%E1%EE%F0%EE%ED%E0.

[143] Ibid., Article 114-5,3.

on his policies concerning nuclear weapons. The communists would have been concerned over the president's refusal to forge closer military ties with the CIS – thereby increasing tensions with Ukraine's neighbours - and his unwillingness to hand over Ukraine's nuclear weapons to Russia. The nationalists would have been angered over the state's decision to eliminate such a powerful guarantor of national security.

Another unenforceable law dealing with Ukraine's military was that the government was responsible for the peacetime maintenance and development of Ukraine's military industrial complex; similarly, the government was tasked with ensuring that the economy could produce needed military equipment and weapons.[144] Given the extensive inter-republic economic links forged by the USSR, Ukraine's military industries were dependent on their Russian counterparts for most of their inputs.[145] Nationalists present in the Ukrainian parliament would have argued against extensive links between the military-industrial complexes of Ukraine and Russia. Not only did such a law limit the legislative ability of Ukrainian lawmakers to reform Ukraine's command economy, it also threatened the stability of the presidential office, due to the fundamental links between state defence, military procurements, and foreign affairs. Because of the outmoded and unclear nature of Ukraine's constitution, under different circumstances such laws could have been used to hijack any presidential attempt at nuclear disarmament.

Hypothetical political situations aside, the establishment of Ukraine's armed forces was greatly aided by the expertise of former Ukrainian officers.

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[144] *Pro Oboronu Ukrainy* (Concerning the defense of Ukraine), 6 December 1991, N 1932-XII, Article 3,accessed 28/09/2013, http://zakon4.rada.gov.ua/laws/show/1932-12/page

[145] Adrian Karatnycky, "The Ukrainian Factor," *Foreign Affairs* 70 (1992), 96-97.

These retired officers were approached by Konstantin Morozov, Ukraine's first Minister of Defence, and hired to staff the nascent ministry. Many of these officers were ethnic Ukrainians with links to Rukh (Ukraine's party for national democrats) and the radical Union of Ukrainian Officers, which boasted a membership of over 70,000 members and was instrumental in ensuring the loyalty of the military units located in Ukraine.[146] Despite the Ukrainian military's foundational links to rightist political elements, it has remained relatively apolitical since its inception in 1991 and did not involve itself in Ukraine's nuclear weapons debate, other than to point out that it was neither advisable nor feasible for Ukraine to maintain a nuclear deterrent.[147] The Cabinet of Ministers (the government) was incapable of playing a large role in this debate due its ever-changing membership during 1991-1992, whereas during much of 1993-1994, the executive was led by Kravchuk, though he did not assume the title of official head of government.[148] Bearing this in mind, all delays in Ukraine's decision to rid itself of nuclear weapons were due mainly to the Ukrainian parliament and its constituent political parties since the military remained relatively apolitical and the Cabinet of Ministers powerless.

The Ukrainian parliament was roughly split into two voting blocs: the Communists and *Narodna Rada* (People's Council). These blocs, however, frequently changed composition and until the 1994 election, there was little variation in the platforms of most parties save that some could simply be labeled

[146] Ibid., 95.
[147] Steven Pifer, "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons,"7.
[148] Harasymiw, 125-127, 254.

communists and others national-democrats. These voting blocs would merge with coalitions that either supported the president or voted against him, thus further complicating the Ukrainian political scene.[149] Some of the major parties at this time included Rukh, the Peasant Party of Ukraine, the Agrarian Party, the Socialists, and the Communists.[150] The left leaning parties in parliament, namely the Communists, Socialists, and Agrarians were particularly prone to infighting and shifting loyalties, more so after the 1994 elections.[151] Conflicts arose because the Socialists and Agrarians, though they bemoaned the breakup of the Soviet Union, still nominally supported Ukraine's independence. The Communists did not.[152] Though the left was more divided than the right, this does not mean that rightist forces could easily pass legislation. As evidence, political legislation was 10 to 15 percent more likely to be passed than legislation concerned with economic reform.[153] This discrepancy was because of Ukraine's numerically stronger leftist parties, which were opposed to extensive privatization. Legislation dealing with political issues, such as the armed forces, changes to the constitution, or citizenship, was less ideologically disconcerting to the totality of the Ukrainian left than changes to Ukraine's command economy. For this reason, the

[149] Ibid., 28.
[150] More specifically, the Ukrainian far-left, such as the Communists, had their highest support in Ukraine's eastern industrial cities. Support for other radical leftist parties and central-left parties was also localized in Eastern and Southern Ukraine. Center-right, radical right, and liberal parties had their support bases in Central and Western Ukraine. For a more detailed summary of Ukraine's complex political landscape during this period, see Taras Kuzio, *Ukraine under Kuchma: Political Reform, Economic Transformation and Security Policy in Independent Ukraine* (London: Macmillan Press Ltd., 1997), 8-26.
[151] Andrew Wilson, "The Ukrainian Left: In Transition to Social Democracy or Still in Thrall to the USSR?" *Europe-Asia Studies* 49 (1997): 1293, accessed 28/09/2013, http://www.jstor.org/stable/154086.
[152] Ibid., 1298-1301.
[153] Leonid Finberg, "Les Problèmes Majeurs de la Société ukrainienne en 1995, " *Cahiers du Monde russe* 39 (1995): 501, accessed 28/09/2013, http://www.jstor.org/stable/20170981.

Verkhovna Rada was capable of garnering enough support to delay, modify, or block treaties submitted to parliament by President Kravchuk. In terms of defence policy, the multitude of changing coalitions and vague ideological convictions hindered the development of a clear conception of Ukraine's security needs.[154] Unclear defence requirements proved to be beneficial to Kravchuk. Unable to endorse an ethnic definition of Ukrainian citizenship and thereby gain more support from nationalists, Kravchuk was more aggressive in his negotiations over Ukraine's strategic forces.[155] However, the international community, particularly Russia and the United States, viewed such policy negatively.

With Ukraine having established administrative control over nuclear weapons in early 1992, Kravchuk, in his inaugural visit to Washington, began the balancing act of, on the one hand, indicating Ukraine's commitment to reducing its nuclear arsenal, and, on the other hand, using this willingness as a bargaining chip for Ukraine's benefit. While Kravchuk was in Washington, the *Verkhovna Rada* approved the signing of the Lisbon Protocol on 7 May 1992. This protocol ensured that Ukraine would assume the same responsibilities as the former USSR would have had under the provisions of START.[156] Article III-4 allowed the United States to inspect the legal compliance of signatory states (and vice-versa), these inspections being based around the embassies of each state.[157] More

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[154] Perepelytsia, 8-10.
[155] Charles F. Furtado Jr. "Nationalism and Foreign Policy in Ukraine," *Political Science Quarterly* 109 (1994): 93, accessed 28/09/2013, http://www.jstor.org/stable/2151661.
[156] Nadia Schadlow, "The Denuclearization of Ukraine: Consolidating Ukrainian Security," in *Ukraine in the World: Studies in the International Relations and Security Structure of a Newly Independent State. Harvard Ukrainian Studies* 20 (1996): 274, accessed 28/09/2013, http://www.jstor.org/stable/41036694.
[157] "Protocol to the Treaty Between the Unites States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms," Article 3-4, Belarus,

significantly, Article V stated that all parties shall "...adhere to the Treaty on the Non-Proliferation [NPT] of Nuclear Weapons of July 1, 1968 as non-nuclear weapon states...."[158] This clause would have significant repercussions when it came time for Ukraine to ratify the treaty. The Lisbon Protocol would seemingly both hinder and advance the cause of Ukrainian nuclear disarmament: Ukraine's signature showed the world that Ukraine would be willing to relinquish its nuclear weapons, but only on its own terms.[159]

By the end of 1992, a new American president – William J. Clinton - was elected and was determined to resolve this nuclear dilemma. In early 1993, American efforts to secure and eventually dismantle the multitude of nuclear weapons in the former Soviet Union outside of Russia, in compliance with START, began. These efforts would soon be included in the Nunn-Lugar program, named after the American senators who pushed for American aid to the former USSR.[160] The specifics of this program will be explored in more detail later, though it should be noted that American lawmakers were disturbed by an open letter from 162 nationalist Ukrainian parliamentarians in April 1993. They claimed that Ukraine should retain its nuclear weapons until all avenues concerning compensation were properly addressed.[161] Though most ministers did

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Russian Federation, United States of America, and Ukraine, May 23,1992, accessed 28/09/2013, http://www.state.gov/documents/organization/27389.pdf. Article III-4 of the protocol refers to sections XVI (and in turn XV) of START, which together point out that signatory states cannot without consultation accept legislation or foreign treaties that conflict with START. They also outline the process by which inspection will take place. For more information, see the START treaty, available at http://www.nti.org/media/pdfs/START_I_1.pdf?_=1316646898

[158] Ibid., Article V

[159] Pifer, 12.

[160] Nadia Schadlow, 277.

[161] Ibid., 278. These 162 parliamentarians, out of a total of 450 in the Ukrainian Parliament, represented the vocal minority in Ukrainian politics who opposed nuclear disarmament.

not play an overly active role in the entire disarmament process, some, such as Environment Minister Yuriy Kostenko, did articulate viewpoints that became popular among many of Ukraine's national democrats. These views centered around two issues. Since Ukraine had helped produce the nuclear weapons, it should be compensated for their removal; moreover, as long as Ukraine's security was not linked with that of Europe and the West, it should retain its strategic arsenal.[162] Such rhetoric helped convince the Americans that serious financial aid had to be considered.

Since Ukraine had only signed the Lisbon Protocol and not sanctioned it, ratification of START was not completed until mid-November 1993, when the *Verkhovna Rada* ratified START-1 with a vote of 254 for and 9 against. It appeared that the feverish negotiations between the American, Ukrainian, and Russian diplomats had paid off. However, the *Rada* refused to acknowledge that Ukraine was a non-nuclear state – and would therefore dismantle all its weapons - because the NPT had no provisions for the USSR's successor states.[163] As a constituent republic of the Soviet Union, Ukraine could arguably have been considered a nuclear state due to Article IX-3 of the NPT, which stated that a "...nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967."[164] With this half-hearted embrace of START (which was ironically reminiscent of Ukraine's confused embrace of its own legislative process), another round of negotiations

[162] Ibid., 278.
[163] Ibid., 279. Ukraine stated that it would only eliminate 36 percent of its launchers and 42 percent of its remaining warheads.
[164] *The Treaty on the Non-Proliferation of Nuclear Weapons*, Article IX-3, United Nations (1968), accessed 28/09/2013, http://www.un.org/en/conf/npt/2010/npttext.shtml.

would be needed before Ukraine would officially proclaim itself a non-nuclear state.

When Ukraine gained its independence in 1991, it did not have a clear formulation as to what its security needs would be. This shortcoming was due to its need to establish the necessary bureaucracy to support its newly founded armed forces and can be seen in the defence-related legislation passed in the early 1990s. Disagreement over the nature of Ukraine's political system instead occupied much of the debate occurring within the *Verkhovna Rada*, whose divided nature greatly reduced the probability of meaningful consensuses being reached. Obscure laws left over from Soviet times could potentially have been used to threaten Ukraine's political stability. Luckily, the voting blocs in Ukraine's parliament were relatively equal in strength. However, this equality meant that Ukraine could not formulate and implement significant reforms, because all amendments were subject to endless debates. Weak political coalitions contributed to Parliament's abilities to block and delay presidential legislative endeavours, notably Kravchuk and the Ukrainian diplomatic corps' negotiations on nuclear disarmament, as demonstrated by the fiasco surrounding Ukraine's ratification of START. To understand better the reasons underlying the intransigence of Ukraine's parliament on the issue of nuclear disarmament, particularly the ***Rada****'s* preoccupation with compensation, it is necessary to examine the rapid decline of Ukraine's economy during the early 1990s.

Chapter 4: The Ukrainian Economy

When Ukraine gained independence in 1991, it also acquired for the first time full control over its own economy. In the years following the Soviet Union's collapse, Ukraine's economy deteriorated to the point of near collapse due to rampant inflation, poor management, and widespread corruption. The effect this deterioration had on Ukraine's population was extensive and largely negative. Living standards dropped, inflation wiped out savings, and most Ukrainians lived at sustenance levels as the economy reverted to a primitive barter system. Many survived due to the cultivation of private plots and gardens outside the cities.[165] This dire economic situation also affected the state budget and by extension, the Ukrainian military. The following section will argue that due to Ukraine's adverse economic situation in the early 1990s, it was financially unfeasible for it to maintain its nuclear forces inherited from the USSR. A history of Soviet Ukraine's economic development will be followed by a discussion on economic problems since 1991. The costs of nuclear weapons (upkeep, R&D, and use) will then be briefly examined, demonstrating that they were larger than Ukraine's total defence budget.

Beginning during the First Five-Year Plan (1928-1932), Eastern Ukraine was transformed into an important industrial region of the USSR. Heavy industry received by far the most investment, and Ukraine became an important hub for Soviet raw material extraction and agriculture. It also became an increasingly

[165] Serhy Yekelchyk, *Ukraine: Birth of a Modern Nation* (New York: Oxford University Press, 2007), 198.

important centre for iron, coal, steel, and chemical production.[166] Though devastated by the Nazi invasion and the Second World War, Ukrainian industry quickly recovered due to feverish reconstruction efforts and heavy state investment. Owing to this investment, Ukrainian industrial output exceeded its pre-war figure by the end of the Fifth Five-Year Plan in 1955.[167] In the ensuing five-year plans, Ukraine received a smaller proportion of total state investment as the central government in Moscow began to invest in and industrialize other parts of the Soviet Union. As a result, throughout the 1970s and 1980s, Ukraine's share of Soviet industrial output dropped slightly, though it still produced 35% of Soviet steel and 40.8% of Soviet pig iron.[168] Despite falling levels of Soviet investment, Ukraine in 1991 nonetheless had a substantial industrial and agricultural base. Two persistent problems facing Ukraine throughout the Soviet period and into independence were the economic interdependencies created by Soviet central planners and their obsession with heavy industry. The result of these problems was that the Ukrainian economy was concentrated on the production of unfinished industrial goods, much of it military related and dependent on Russian enterprises for completion. In 1990, only 26% of Ukrainian industry was devoted to the production of consumer and light industrial items.[169]

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[166] Ibid., 105. See also Raphael Shen's *Ukraine's Economic Reform: Obstacles, Errors and Lessons* (London: Praeger, 1996), 24-25.
[167] Yekelchyk, 149.
[168] Ivan Svyatoslav Koropets'kyi, *Deshcho pro mynule, nedavnye mynule ta suchasne ukrains'koi ekonomiky* (Notes on the past, recent past, and modern Ukrainian economy), (Kyiv: Lybid', 1995), 117. For figures on some industrial figures from 1989, see Ivan Lukinov, "Radical Reconstruction of the Ukrainian Economy," in *The Ukrainian Economy: Achievements, Problems, Challenges*, ed. I.S Koropeckyj (Cambridge: Harvard University Press, 1992), 23.
[169] Shen, 33, 43.

The lack of diversification in the Ukrainian economy would have important ramifications given the composition of the Ukrainian workforce and pose serious problems for decision-making about the future of its nuclear arsenal after independence. In 1991, 60 percent of working age Ukrainians were involved in material production (40 percent in industrial production and 20 percent in agricultural output).[170] The industrial directors in charge of these numerous enterprises formed a powerful political lobby and helped influence the course of reforms pursued by the Ukrainian government. Managers and lobbyists pressed the government to increase the nominal money supply and in this way allow agricultural and industrial output to remain high due to state purchases. This reform emphasized industrial production at the expense of needed monetary reform. The state, immersed in the legacy of central planning, was happy to oblige.[171] As a result, most Ukrainian enterprises were being subsidized by government funds. The state budget was likewise based not on central bank forecasts (which were left out of the decision-making process), but on projected production figures. When these quota based budgets were found to be several times smaller than what was actually spent, the Ukrainian government took the actual budgetary figures and at the end of the year claimed them as the official budget. The only monetary reform introduced in Ukraine initially was prompted by actions in Russia. Once Russia liberalized price controls, Ukraine passed

[170] Ibid., 30.
[171] Viktor Pynzenyk and Vira Yakusha, "How to Find a Path for Ukrainian Reforms," in *Russian and East European Finance and Trade* 36 (2000): 60, accessed 28/09/2013, http://www.jstor.org/stable/27749515.

similar reforms, though they were not very far reaching.[172] The combination of across the board subsidies and unrealistic budgets led to rampant inflation.

As inflation spiralled out of control in 1992 and 1993, Ukraine began experiencing serious problems in its balance of payments, especially regarding its imports of gas and oil. The combination of pre-existing infrastructure (pipelines, refineries etc), inefficient industries, and heavily subsidized energy prices inherited from the USSR ensured that it would be reliant on Russian and Central Asian oil and gas.[173] The inefficient use of energy in Ukraine is exemplified by the fact that Ukraine and the UK had similar energy consumption levels, despite the Ukrainian economy being half the size of that of its British counterpart.[174] The price of gas imports was also a point of contention between Russia and Ukraine as much of Ukraine's gas imports from its neighbour during this period were accrued as debts.[175] As Ukraine's foreign currency reserves dwindled, in August 1993 it chose to force exporters to hand over a portion of their hard currency at a fixed rate well below market levels.[176] From this point, inflation turned into hyperinflation as the *karbovanets* (coupon) lost much of its value and the price of

[172] Ibid., 60.
[173] Margarita M. Balcameda, "Gas, Oil and the Linkages between Domestic and Foreign Policies: The Case of Ukraine," *Europe-Asia Studies* 50 (1998): 258, accessed 28/09/2013, http://www.jstor.org/stable/153460.
[174] Taras Kuzio, "The Domestic Forces of Ukrainian Foreign Policy," in *Towards a New Ukraine I: Ukraine and the New World Order, 1991-1996*, eds. Theofil Kris et al. (Ottawa: Chair of Ukrainian Studies-University of Ottawa, 1997), 35.
[175] Josef C. Brada and Gregory V. Krasnov, "Implicit Subsidies in Russian-Ukrainian Energy Trade," *Europe-Asia Studies* 49 (1997): 827, accessed 28/09/2013, http://www.jstor.org/stable/153487. Payments for oil and gas shipments were to use convertible currency. In mid-1993 Ukraine and Russia agreed on a price for oil. Disputes over gas prices continue to this day.
[176] Vasily Zorya, "Panic on Ukrainian Currency Exchange: 19,000 Karbovantsy to the Dollar," *Izvestia*, August 21, 1993, in *The Current Digest of the Russian Press* 45 (1993): 26, accessed 28/09/2013, http://dlib.eastview.com.login.ezproxy.library.ualberta.ca/browse/doc/13579026

imports increased drastically. By the end of 1993, inflation for the year stood at 10,235 percent.[177]

Despite these developments, the state remained aloof when it came to macroeconomic reforms. It continued to subsidize failing industries under the guise of protecting workers, despite the lack of demand for Ukraine's heavy industrial products. For example, during the early 1990s Ukraine produced roughly 60 million tons of steel annually, a figure three times higher than that of the United Kingdom and Germany.[178] Other than production figures, the difference between the German and British steel industries and that of Ukraine was that the latter had a market outside of the struggling former Soviet bloc. Ukraine's first president, Leonid Kuchma, was the 2nd Party Secretary of the Ukrainian SSR in charge of ideology. His knowledge of market economics was severely limited and in any case, his focus was on state building through consensus.[179] This policy entailed maintaining the state apparatus and personnel from the communist period, which did not help Ukraine's economic prospects. The process of creating a bureaucracy and nation-building resulted in huge government neglect of the economy. As the state desperately sought sources of revenue, excessive regulations and taxation became the norm, and soon Ukraine

[177] Viktor Pynzenyk and Vira Yakusha, 62.
[178] Bohdan Hawrylyshyn, "Ukraine 1991-1996: Changes in the Economic Structure and System," in *Towards a New Ukraine I: Ukraine and the New World Order, 1991-1996*, eds. Theofil Kris et al. (Ottawa: Chair of Ukrainian Studies-University of Ottawa, 1997), 25
[179] Anders Aslund, "The Trouble with Economic Reform in Ukraine," in *Towards a New Ukraine II: Meeting the Next Century,* eds. Teofil Kis et al. (Ottawa: Chair of Ukrainian Studies-University of Ottawa, 1999), 104.

became one the world's most over-regulated and over-taxed economies.[180] Extreme regulation of the economy also resulted in the proliferation of corruption and rent-seeking, thus further hampering Ukraine's economic development.[181] Specifically, these developments weakened Ukraine's economic position vis-a-vis Russia and as Ukraine became more dependent on the latter for its economic well-being, nuclear weapons seemed a reasonable deterrent to the possibility of Russian economic threats.

The effects of Ukraine's hyperinflation, corruption, budgetary, and energy problems were drastic. From 1991 to 1994, Ukraine's GDP fell by slightly over 40%.[182] By 1997, Ukraine's economy had shrunk to one-third of its 1990 size.[183] A minor positive consequence that can be drawn from this dilemma is that Ukraine's energy needs shrank considerably. Petroleum consumption went down from 812,711 barrels/day in 1992 to 484,378 in 1995. Likewise, gas consumption was 3,503.52 billion cubic ft in 1992, while in 1995 it was 2,969.99 billion cubic ft.[184] As the economy deteriorated so too did the energy needs of the state, general public, and industry. The combination of poor economic performance and coal miners' strikes led to elections in the summer of 1994 and a new president, Leonid Kuchma. In his 1995 budget, Kuchma used macroeconomic indicators as the basis for his budget. Inflation dropped and the economy stabilized, albeit at a

[180] Raphael Shen, "Restructuring Ukraine's Economy," in *Towards a New Ukraine II: Meeting the Next Century*, eds. Teofil Kis et al., (Ottawa: Chair of Ukrainian Studies-University of Ottawa, 1999), 124.
[181] Aslund, 106.
[182] Pynzenyk and Yakusha, 61.
[183] Hawrylyshyn, 25.
[184] US Energy Information Administration, "Overview Data for Ukraine," *US Department of Energy*, accessed 28/09/2013, http://www.eia.gov/countries/country-data.cfm?fips=UP#ng

level much lower than had existed just a few years earlier.[185] Throughout the early years of independence, Ukraine kept its social spending at 20% of its (decreasing) GDP, a level far too high for a country in Ukraine's condition.[186]

If social spending was being maintained at such high levels, other portions of Ukraine's budget had to be reduced. In particular, Ukraine's financial situation adversely affected its military spending, which in 1993 amounted to 0.5% of its GDP.[187] The 1992 budget promised the military 15.8% of state expenditures; in actuality it was 9%. By 1995, the Ukrainian military budget was three times smaller than it had been in 1992.[188] These budgetary reductions had dramatic effects on the Ukrainian armed forces' fighting and training abilities. Plans to reduce the size of the armed forces and gradually transform the military into a professional (as opposed to conscription-based) service were also thwarted by a lack of funds. By 1996, it was hoped that the total size of the armed forces would be 370,000.[189] In actuality, NATO analysts posited that Ukraine's armed forces in 1996 numbered between 500,000 and 600,000 soldiers. These analysts pointed out that due to lack of fuel and ammunition, the training of service members was intermittent.[190] One need only look at the air force to see the effects that a small

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[185] Pynzenyk and Yakusha, 63.
[186] Aslund, 110.
[187] SIPRI Military Expenditure Database, "Military Spending of Ukraine," *Stockholm International Peace Research Institute*, accessed 28/09/2013, http://milexdata.sipri.org/result.php4. See also World Bank, "Military Expenditure as a Percentage of GDP," *Google Public Data*, accessed 28/09/2013, https://www.google.ca/publicdata/explore?ds=d5bncppjof8f9_&met_y=ms_mil_xpnd_gd_zs&idim=country:UKR&dl=en&hl=en&q=ukraine%20military%20expenditure. These figures indicate that Ukraine's spending in 1993 was at 0.47% of GDP.
[188] Perepelytsia, 12.
[189] Ibid., 11.
[190] Christopher Pett and Vyacheslav Pikhovshek, "Transformation of the Ukrainian Armed Forces," *NATO Review* 42 (1994), accessed 28/09/2013, http://www.nato.int/docu/review/1994/9405-6.htm#footnote1.

budget had on combat readiness. Of 45 air groups, only 3 were fit for service and combat by 1996.[191] If Ukraine could not afford the proper maintenance of its conventional forces, how could it hope to maintain nuclear weapons, in many ways the pinnacle of modern military forces? Simply put, Ukraine could not, despite its leaders perceiving Ukraine's economic situation as a domestic security issue.

Nuclear weapons are enormously complicated devices, their development and production requiring large sums of money. Functional nuclear weapons, in Ukraine's case its SS-19 (liquid-fueled) and SS-24 (solid-fueled) missiles, are not single mechanisms, but a series of thousands that must work in perfect precision if they are to operate properly. Beyond the upkeep of the missile itself, using appropriate nuclear technology a warhead can be maintained beyond its original serviceable life. This has been the goal of the American Stockpile Stewardship Program (SSP), located at the Los Alamos National Laboratory, birthplace of the American atomic bomb. With a budget of two billion dollars a year, Los Alamos tests every component of a nuclear warhead. American scientists are able to extend the lives of the plutonium within the warhead through subcritical tests and other modifications.[192] Given this large annual expense, when combined with the fact that the Russian nuclear program nearly collapsed in the 1990s from low funding (in fact it still receives American funding for its nuclear industry), it is highly doubtful that Russia has a program similar to the SSP. Russia's February

[191] Perepelytsia, 12.
[192] Nathan Hodge and Sharon Weinberger, *A Nuclear Family Vacation: Travels in the World of Atomic Weaponry*, (New York: Bloomsbury, 2008), 16-18. Plutonium is a difficult element to maintain: left in open air it will oxidize, in powder form it can easily combust and when used as a warhead's trigger its surface corrodes while its core undergoes radioactive decay. For information on Los Alamos' budget, see pg 37.

2012 announcement to develop 400 new ICBMs, though viewed with alarm in much of the West, is likely just a necessary undertaking aimed at replacing expiring Russian warheads and missiles.[193] If Russia experienced difficulties in maintaining its nuclear industry and weapons, than this applied doubly so to Ukraine, which like Russia, had received aid from the Nunn-Lugar program. Notwithstanding that Ukraine already had much of the necessary infrastructure to create nuclear weapons, it would still cost Ukraine $25 billion to produce its own warheads. Such a figure represented the sum of Ukraine's military budget for the next fifteen years.[194]

In the early 1990s there were rumours that Ukraine was pursuing its own command and control system, which would have allowed it to launch its nuclear weapons without Russian consent.[195] However, any military engagement with Russia, be it conventional or nuclear, would have been disastrous for Ukraine. As mentioned earlier, the Ukrainian armed forces lacked ammunition and fuel. Specifically, in the event of war with Russia its oil supplies would be cut off. Even if Ukraine could find another source of oil, it would be unable to refine it into aviation fuel.[196] Therefore, its already handicapped air force would be unable to fly and without an air force Ukraine's army would be extremely vulnerable.

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[193] Rachel R. Strauss, "'We Mustn't Tempt Anyone with our Weakness,' Says Putin as he Announces $770bn Plan to Update Military Hardware to Preserve Vital Resources," *The Daily Mail*, February 20, 2012, accessed 28/09/2013, http://www.dailymail.co.uk/news/article-2103708/Putin-announces-770bn-plan-update-military-hardware-preserve-vital-resources.html. See alsoTimothy Sprangler, "Putin Promises Military Investment," *The Jerusalem Post*, February 23, 2012, accessed 28/09/2013, http://www.jpost.com/Magazine/Opinion/Article.aspx?id=259123.
[194] Perepelytsia, 19. The estimated price is in 1991 dollars. Adjusted to inflation this figure would be $41.51 billion in 2012 dollars.
[195] John Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72 (1993), 50-51.
[196] Hawrylyshyn, 25.

Assuming that Ukraine had not had such logistical issues and that the performance of Russian and Ukrainian forces had equal combat capabilities during the early 1990s (due to their common Soviet heritage), Russia would still have possessed a numerical advantage in manpower and resources. In the event that Ukraine could repel a Russian invasion, Russia would still have had strategic and tactical options unavailable to Ukraine due to its possession of tactical nuclear weapons. Ukraine had relinquished all its tactical nuclear weapons in early 1992.[197]

As the Ukrainian economy deteriorated due to poor management and inflation, so too did the state of its military. Lack of funding hampered the readiness and fighting capability of Ukraine's armed forces. If Ukraine had possessed a developed economy on a par with most NATO countries, then from a purely economic perspective it could have maintained a nuclear deterrent. After all, most major NATO states (the USA, the UK, and France) kept relatively small conventional armies during much of the Cold War, instead using nuclear weapons as the cheapest means of deterrence available. Given that Ukraine is of a similar physical and demographic size as France, such a course of action was not inconceivable. However, Ukraine's economy could barely support its own conventional forces. Given the options of choosing between a regular army, no matter how underfunded, and nuclear forces (whose maintenance would cost many times more than Ukraine's limited military budget) with no conventional armed forces for fifteen years, any state in Ukraine's geostrategic position would undoubtedly choose to have a standing army. Unlike nuclear weapons whose use

[197] Mearsheimer, 50.

only involves enormous destruction, conventional armed forces provide a state with many more options during a crisis.

Chapter 5: The Fruits of Foreign Involvement

Thus far, we have examined the major factors influencing Ukraine's decision to retain its nuclear arsenal, namely territorial threats made by members of Russia's political establishment and the corresponding response these demands produced among nationalist Ukrainian parliamentarians. A significant factor that was pushing Ukraine away from full-scale nuclear status was its imploding economic situation. Nonetheless, the country was quick to assert administrative control over its share of the former Soviet strategic arsenal and in doing so begin the arduous process of negotiating whether or not it would remain a nuclear state. This chapter will examine how American involvement began and how this involvement would lead to the Trilateral Process and Ukraine's eventual nuclear disarmament. It will begin with American perceptions of Ukraine and how these perceptions and the overall tone of American foreign policy changed towards Ukraine following the collapse of the Soviet Union. Once this shift in American policy has been explained, the Nunn-Lugar program will be explored in order to highlight the form that American aid would take. This program would form the basis for negotiations leading up to the Trilateral Process. Next, the Trilateral Agreement itself will be highlighted. Finally, this chapter will examine the Budapest Memorandum and its corresponding security commitments, marking the end of the Ukrainian nuclear weapons era.

During the evening of December 25, 1991, President George Bush addressed his nation concerning the collapse of the USSR. In the speech, Bush called on Americans to take pride in their Cold War victory; he also applauded the

CIS's "...careful attention to nuclear control and safety..."[198] However, the problematic issue of the division of these nuclear assets had yet to arise. Initial American diplomatic overtures to Ukraine can hardly be seen as being unequivocally supportive, as exemplified by Bush's August 1991 "Chicken Kiev" speech, in which he warned Ukraine's parliament that Americans would not support suicidal nationalism and ethnic hatred in a nation's quest for independence.[199] This was a veiled warning that Ukraine should avoid any sudden withdrawal from the USSR and this allusion was an awkward formulation given the generally positive tone of the speech. The president's communications concerning Ukraine evidenced support for both independence and some form of allegiance to a greater political centre. A similar trend was apparent in the formulation of American policy during this period. American Secretary of State, James Baker, strongly argued in favour of only one post-Soviet state inheriting the USSR's nuclear arsenal. His views came into conflict with those—many of whom were in the Office of the Secretary of Defence—who favoured a weaker Russia, with Ukraine retaining nuclear weapons.[200] Baker's reasoning prevailed and before his term as Secretary of State ended, he was the leading figure in American attempts to resolve the former USSR's nuclear proliferation.

The vehicle through which America would accomplish much of its aid to Ukraine was the Nunn-Lugar program, also known as the Cooperative Threat

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[198] George Bush, "Bush on the Commonwealth of Independent States," December 25, 1991, *Public Papers of the Presidents of the United States*, Washington, D.C.: U.S. Government Printing Office, 1992, accessed 28/09/2013, http://www.webcitation.org/5kwPvzwbi

[199] Ibid., "Address to the Supreme Soviet of Ukraine," August 1, 1991, accessed 28/09/2013, http://en.wikisource.org/wiki/Chicken_Kiev_speech

[200] Steven Pifer, "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons," 7.

Reduction Program (CTR). Sam Nunn, a Democratic senator from Georgia, first approached the House Armed Services Committee with a proposal that financial aid be given to the nuclear-inheritor states of the former USSR in order for these states to secure, and if need be, dismantle their strategic stockpiles. Nunn's proposal was poorly received and only after discussing a Carnegie Foundation study with twenty of his fellow senators did he receive enough support to pass his bill.[201] The bill initially provided $400 million for the disarmament of Soviet nuclear and chemical weapons, in addition to $100 million devoted to humanitarian aid.[202] The Nunn-Lugar program had five major goals: to safeguard and eliminate nuclear stockpiles within the former USSR; to prevent the proliferation of nuclear weapons and their components; to prevent the proliferation of nuclear expertise and scientists; to support the de-militarization of Soviet defence industries and to promote their conversion to civilian use; and finally, to expand military defence contracts between the US and former Soviet states.[203] The program required the United States to sign an umbrella treaty with Ukraine,[204] i.e. one with terms and conditions aimed at fulfilling potential future contractual obligations. In Ukraine's case full funding and American cooperation

[201] Ashton B. Carter, Kurt Campbell, Steven Miller, and Charles Zraket, *Soviet Nuclear Fission: Control of the Nuclear Arsenal in a Disintegrating Soviet Union*, (Cambridge, Mass.: Center for Science and International Affairs, Harvard University, 1991); Cited in Philip Taubman, *The Partnership: Five Cold Warriors and Their Quest to Ban the Bomb* (New York: Harper Collins Publishing, 2010), 273-275.
[202] Taubman, 275.
[203] United States Congress 22 § 5951, "Findings on Cooperative Threat Reduction," accessed 28/09/2013, http://www.law.cornell.edu/uscode/text/22/5951.
[204] The specific treaty signed between Ukraine and the US was the "Agreement Concerning Assistance to Ukraine in the Elimination of Strategic Nuclear Arms and the Prevention of Proliferation of Weapons of Mass Destruction," signed in Kiev October 25th, 1993, accessed 28/09/2013, http://www.state.gov/documents/organization/83043.pdf. The treaty would be renewed in 1999, and from 2006 onwards.

would have been dependent on Ukraine, Russia, and the USA finding a mutually acceptable solution to the status of Ukraine's nuclear weapons.

Before the Trilateral Agreement was signed, Ukraine took several steps to convey that it was in charge of the nuclear weapons located on its territory. In March 1992, it halted its shipment of tactical nuclear weapons to Russia, on the vague grounds that there could be no guarantee of their destruction or that these weapons might fall into the wrong hands.[205] It is just as likely that the halting of these shipments was a result of territorial threats made by Russian statespeople, as explored earlier. The US government quickly expressed its consternation and stressed that American assistance to post-Soviet states was linked to their adherence to the nuclear commitments they had previously made. Shortly thereafter, Ukraine agreed to return the remainder of its tactical nuclear weapons to Russia, and the latter agreed to allow Ukrainian officials clearance to observe the destruction of the warheads.[206] Through the Lisbon Protocol (examined earlier) signed in May 1992, Ukraine pledged its commitment to sign and adhere to the NPT and START-1 treaties at the earliest possible date and in return it would receive $150 million in US aid.[207] However, Ukrainian politicians—some of whom also served simultaneously in the military—argued that Ukraine needed the security provided by nuclear weapons and should not give away its missiles

[205] Serge Schmemann, "Ukraine Halting Arms Shift to Russia," *New York Times*, March 13, 1992, accessed 28/09/2013, http://www.nytimes.com/1992/03/13/world/ukraine-halting-a-arms-shift-to-russia.html?src=pm
[206] Pifer, 11.
[207] Sherman Garnett, "U.S.-Ukrainian Relations: Past, Present, and Future," *Harvard Ukrainian Studies* 20 (1996): 107, accessed 28/09/2013, http://www.jstor.org/stable/41036686

without direct compensation, as it had done with its tactical weapons.[208] In short, factions of the Ukrainian parliament began to see Ukraine's strategic arsenal as a means of garnering international attention, assurances of security, and compensation for its strategic arsenals. For these reasons, Ukraine asserted administrative control over its nuclear weapons in April 1992, shortly before it signed the Lisbon Protocol. Administrative control signified that Ukraine had jurisdiction over the officers involved in the maintenance and operation of the weapons, giving the option to the affected service members to either quit the service, continue in Ukraine, or move to Russia.[209] By December 1992, President Kravchuk announced that Ukraine had the technical ability to block the unauthorized use of nuclear materiel located on Ukraine's territory, though Ukraine reiterated that it could not launch any of its weapons.[210]

Despite these ambiguous signals, the Ukrainian policy authorities were aware of the consequences of not relinquishing the strategic arsenal. Kravchuk insisted that the ratification of the START-1 would be dependent on three conditions: security guarantees for Ukraine, economic compensation for the loss of warheads and missiles, and environmental safeguards for the toxic compounds within the said weapons.[211] Nonetheless, he made it clear that Ukraine was attaching these conditions to the ratification of SALT-1 as last-resort measures. As he noted, "if we were rich, we would never pose such questions...But our

[208] Serge Schmemann, "Ukraine Finds Nuclear Arms Bring a Measure of Respect," *The New York Times*, January 7, 1993, accessed 9/28/2013, http://www.nytimes.com/1993/01/07/world/ukraine-finds-nuclear-arms-bring-a-measure-of-respect.html?pagewanted=all&src=pm
[209] Pifer, 9.
[210] Alexander A. Pikayev, "Post-Soviet Russia and Ukraine: Who Can Push the Button?" *The Nonproliferation Review/Spring-Summer* 1(1994): 40, accessed 28/09/2013, http://cns.miis.edu/npr/pdfs/pikaye13.pdf
[211] Serge Schmemann, "Ukraine Finds Nuclear Arms Bring a Measure of Respect."

economy is in crisis. There is a fall in production. Can we independently decide this problem? No, that's clear to all."[212] Likewise, Ukraine's Deputy Foreign Minister (and later Foreign Minister), Borys Tarasyuk, elaborated on the delicate, if not desperate, situation in which Ukraine found itself: "Our Western partners made it clear that if the Ukraine had not chosen nuclear-free status, all possible political, economic and psychological sanctions would have been applied against us."[213] By 1993, it had become apparent to much of Ukraine's political leadership that there were significant economic and political/diplomatic risks associated with pursuing a pro-nuclear weapons agenda.

Unlike in Ukraine, the nuclear disarmament of Belarus and Kazakhstan never became a major issue. Similar to Ukraine's declaration of state sovereignty, Belarus' declaration also stated a commitment to neutrality and denuclearization. Certain Belarusian politicians, such as Defence Minister Pyotr Chaus and Foreign Minister Pyotr Krauchanka intimated that Belarus should not hastily relinquish its share of Soviet nuclear weapons (1,220 at the time of independence), though after 1992 Belarus did not seriously consider retaining any of its weapons.[214] Only in 1996, under the Lukashenko administration, did Belarus arbitrarily halt the shipment of its missiles and warheads to Russia, citing that the shipments of these weapons was unnecessary given that Belarus and Russia would soon be united.[215] Nonetheless, shipments were soon resumed and completed in November 1996.

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[212] Ibid.
[213] J.F. Dunn, "The Ukraine Nuclear Weapons Debate," (Camberley, Surrey: Soviet Studies Research Centre, 1993) accessed 28/09/2013, http://www.fas.org/news/ukraine/k16.html
[214] Deyermond, 90-92.
[215] Ibid., 92-93

The fourth state to inherit Soviet nuclear weapons was Kazakhstan. Immediately following independence, Yasser Arafat and Iraq, in addition to several other Middle Eastern states, all made overtures to the new Kazakh state in hopes that it would sell some of the weaponry, or if not, at least link itself more closely to Middle Eastern affairs.[216] Kazakhstan did not acquiesce to these demands and decided to ship its weapons to Russia if the US would pay the cost. In order to transport the warheads, the US built special rail cars that would be used throughout the nuclear-inheritor states for transport.[217] The Americans would also successfully launch Project Sapphire, a covert mission whose goal was to collect stray Kazakh uranium and ship it via plane to the USA.[218] However, less secretive methods would result in Kazakhstan being nuclear free by May 1995, by which time it was clear that the problem of post-Soviet nuclear proliferation had been adequately handled.

As Ukraine vacillated on the question of its inherited nuclear weapons, intense diplomatic and international pressure – especially from Russia – began to mount. During the summer of 1993, Russia issued a complaint to the United Nations' conference on disarmament criticizing the Ukrainian parliament's recently sanctioned "Guidelines for the Foreign Policies of Ukraine."[219] This new

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[216] Richard Rhodes, *The Twilight of the Bombs: Recent Challenges, New Dangers, and the Prospects for a World Without Nuclear Weapons* (New York: Alfred A Knopf, 2010), 118-119
[217] Ibid., 119-122.
[218] David E. Hoffman, *The Dead Hand: The Untold Story of the Cold War Arms Race and its Dangerous* Legacy (Toronto: Doubleday, 2009), 452-456.
[219] U.N Office at Geneva, Conference on Disarmament, "Letter Dated 10 August 1993 From the Acting Representative of the Permanent Mission of the Russian Federation Addressed to the Secretary-General of the Conference on Disarmament Transmitting a Statement by the Government of the Russian Federation Relating to Ukraine's Policy Concerning Nuclear Weapons Located on its Territory," (CD/1213) August 10, 1993, accessed 28/09/2013, http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G93/620/31/PDF/G9362031.pdf?OpenElement

legislation made Ukraine the formal owner of the strategic weapons remaining on its territory, which Russia claimed was in violation of CIS agreements, the Lisbon Protocol, and the NPT.[220] This was a sensitive issue that had hitherto remained in a state of legal limbo. In response, Ukraine issued its own letter which re-stated its commitment to remaining non-nuclear and that it had inherited the property on its territory in accordance with established international law, including the NPT.[221] Ukraine then attacked Russia's decision to end the CIS's Unified Command, pointing out that Ukraine had ceded the right to use nuclear weapons to the CIS joint command and in the absence of this body, it retained the right to control its nuclear arsenal.

With the signing of the September 1993 Massandra accord, Russia and Ukraine reached an agreement on the Black Sea Fleet (examined earlier), but not on Ukrainian strategic weapons. Russia would once again attack Ukraine at the UN, this time because the latter changed the wording of the agreement reached in Massandra.[222] In this way, according to the Russians, Ukraine sidestepped its

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[220] Ibid.

[221] U.N Office at Geneva, Conference on Disarmament, "Letter Dated 23 August 1993 From the Permanent Representative of Ukraine Addressed to the Secretary-General of the Conference on Disarmament Transmitting the Statement of the Press Secretary of the Cabinet of Ministers of Ukraine on Matters Concerning Nuclear Disarmament of Ukraine Issued on 18 August 1993," (CD/1221) August 23, 1993, accessed 28/09/2013, http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G93/623/59/PDF/G9362359.pdf?OpenElement

[222] U.N Office at Geneva, Conference on Disarmament, "Letter Dated 2 October 1993 From the Deputy Representative of the Russian Federation Addressed to the Secretary-General of the Conference on Disarmament Transmitting a Press Release and a Statement by the Representative of the Ministry of Foreign Affairs of the Russian Federation Related to the Issue of the Elimination of Nuclear Weapons Deployed on the Territory of the Ukraine," (CD/1226) October 5,1993, accessed 28/09/2013, http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G93/626/53/PDF/G9362653.pdf?OpenElement; The original section in question read as follows: "The President of the Russian Federation and the President of Ukraine have agreed that after ratification of the START-1 Treaty by the Supreme Soviet of Ukraine the Government of Ukraine will, no later than 24 months after the date of ratification, ensure the withdrawal of all nuclear warheads from the strategic nuclear forces deployed in Ukraine to the Russian Federation for dismantling and destruction." The changes noted by the Russians were that

commitment to deliver all nuclear weapons to Russia within 24 months and thereby rendered protocols within the agreement non-existent.[223] Ukraine retorted that Russian representatives were present when the amendments were made and that they had made no objections.[224] Through these diplomatic exchanges, a summary of each state's views on the matter of Ukrainian nuclear disarmament is presented; moreover, the curt language used was indicative of the tension between Ukraine and Russia. More importantly, the failure of the Massandra Accord on the subject of Ukraine's nuclear weapons would finally convince the Americans of the necessity of their involvement in this issue.

In May 1993, before the collapse of many of the agreements reached at Massandra, American envoys to Kyiv suggested that in order for Ukraine to receive further financial assistance, it should ratify the START-1 treaty.[225] This would mark the beginning of serious American involvement in the continuing process of Ukrainian nuclear disarmament as the United States decided to tie multi-faceted aid (security, financial, cultural, etc.) to Ukraine's compliance. Acknowledging Ukraine's need for compensation, in spring 1993 the US managed to reach an agreement with Russia and (later) Ukraine, in which highly enriched uranium (HEU) from strategic weapons was blended down into lightly

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"all" was crossed out "...and the words 'subject to the Treaty' added after the words "strategic nuclear forces."

[223] Ibid.

[224] U.N Office at Geneva, Conference on Disarmament, "Letter Dated 22 October 1993 From the Permanent Representative of Ukraine Addressed to the Secretary-General of the Conference on Disarmament Transmitting the Press Release of the Press-Centre of the Ministry of Foreign Affairs of Ukraine Dated 24 September 1993, (CD/1228) October 22, 1993, accessed 28/09/2013, http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G93/626/91/PDF/G9362691.pdf?OpenElement.

[225] "Country Profiles - Ukraine: Nuclear," NTI, accessed 28/09/2013, http://www.nti.org/country-profiles/ukraine/nuclear/

enriched uranium (LEU).[226] LEU could not be used in nuclear weapons, though it could still be used to power reactors, a significant boon to Ukraine, which did not produce its own uranium. Ukraine, however, still wanted compensation for the HEU found in the tactical weapons already shipped to Russia, and through American mediation in August 1993, it seemed a bilateral agreement could be reached with Russia.[227] This hope proved misplaced as the failure of the Massandra talks showed. Subsequently, the Americans stepped up their involvement, and through a three-way agreement the problem of Ukrainian disarmament was resolved. In October, American and Ukrainian diplomats signed the umbrella treaty that tied Ukraine to the Nunn-Lugar program, and in November Ukraine signed START-1 with provisions inimical to the entire spirit of the treaty (see Chapter 3 on Internal Politics). Frustrated with Ukraine's recalcitrance, Russia began advocating for UN Security Council intervention.[228] As Steven Pifer, the American Ambassador to Ukraine noted, Russia let American diplomats lead the way in subsequent negotiations.[229]

On January 14, 1994, the presidents of Ukraine, Russia, and the United States met in Moscow and signed the Trilateral Statement. Under this new treaty, Ukraine would accede to the Lisbon Protocol and sign the NPT as a non-nuclear state as soon as possible. In return, the Americans agreed to give Ukraine

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[226] Pifer, 18.
[227] Ibid., 18-20.
[228] U.N Office at Geneva, Conference on Disarmament, "Letter Dated 29 November 1993 From the Permanent Representative of the Russian Federation to the Conference on Disarmament Addressed to the president of the President of the Conference on Disarmament Transmitting a Statement Issued by the Government of the Russian Federation on 25 November 1993 Regarding a Decision Adopted by the Supreme Soviet of Ukraine on 18 November 1993 Concerning the Start-1 Treaty," (CD/1230) November 30, 1993, accessed 28/09/2013, http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G93/628/03/PDF/G9362803.pdf?OpenElement
[229] Pifer, 21-22.

financial aid to help defray the cost of protecting and shipping the weapons to Russia, where they would be destroyed with Ukrainian officials present. Ukraine would also receive security assurances from Russia, the USA, and Britain once it became a non-nuclear state party to the NPT and once START-1 entered into force. Of the $800 million provided by the Nunn-Lugar program devoted to the former-Soviet republics, Ukraine would receive $175 million. Insofar as Ukraine continued to ship its strategic missiles to Russia, it would continue to receive LEU to power its nuclear reactors. In addition, Ukraine had ten months to remove the warheads from its sophisticated SS-24 missiles, thus rendering them impotent.[230]

Nearly a month after Ukraine ratified the NPT in mid-November 1994, thus becoming a legally bound non-nuclear state, Russia, Britain, and the United States fulfilled their commitments made in the Trilateral Agreement by providing security assurances to Ukraine in what was known as the Budapest Memorandum.[231] These three nuclear-weapon states reaffirmed their commitment to respect Ukraine's sovereignty and territorial integrity in addition to renouncing the use of force against Ukraine, except in self-defence. Similarly, they promised not to deploy any form of economic coercion that would interfere with Ukraine's internal decision-making process and violate Ukraine's sovereignty. The final

[230] U.N Office at Geneva, Conference on Disarmament, "Letter Dated 26 January 1994 From the Permanent Representative of the Russian Federation to the Conference, the Representative of the United States of America to the Conference and the Permanent Representative of Ukraine Addressed to the President of the Conference on Disarmament Transmitting Texts of the Trilateral Statement by the Presidents of the Russian Federation, the United States of American and Ukraine, as well as the Annex to the Trilateral Statement, signed in Moscow 14 January 1993," (CD/1243) February 4, 1994, accessed 28/09/2013, http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G94/602/55/IMG/G9460255.pdf?OpenElement

[231] *Pro pryyednannya Ukrainy do Dohovoru pro nerozpovsyudzhennya yadernoi zbroi vid 1 lypnya 1968 roku* (Concerning the joining of Ukraine to the Non-proliferation treaty of 1 July 1968), 16 November 1994, N. 47, accessed 28/09/2013, http://zakon1.rada.gov.ua/laws/show/248/94-%D0%B2%D1%80

major point agreed to in the Memorandum was that in the event that nuclear weapons were used against Ukraine, then the three powers would seek immediate Security Council assistance.[232] Despite the resolution of the nuclear weapons issue and the corresponding security assurances, Ukraine was not entirely satisfied with the Memorandum and, as will be explored in the final chapter, it has been lobbying for more binding commitments ever since.

After over two years of avoiding commitment to nuclear disarmament, Ukraine finally agreed to become a non-nuclear state in accordance with international law in 1994. Prior to the Trilateral Agreement, it seemed unlikely that a timely resolution between Russia and Ukraine could be reached concerning Ukrainian nuclear disarmament. Gradually throughout 1992 and 1993, American officials came to realize the practicality of their involvement in this complicated issue, first as an outside mediator and later as a direct participant. Far-sighted aid programs, particularly one championed by Sam Nunn, aided in this process by creating a foundation on which the United States could provide aid to new states of Russia and Ukraine. Through the Nunn-Lugar program and the corresponding umbrella treaties, it could tie financial aid to political progress on the issue of nuclear disarmament. In this sense, American negotiators provided something that their Russian counterparts would not: recognition of Ukrainian property and the ability to compensate an economically troubled Ukraine for the transfer and elimination of this property. Though Ukraine succeeded in receiving

[232] "Memorandum on Security Assurances in Connection with Ukraine's Accession to the Treaty on the Non-Proliferation of Nuclear Weapons," Article 1-4, Russian Federation, United Kingdom, United States of America, Ukraine, signed in Budapest 5 December 1994, accessed 28/09/2013, http://en.wikisource.org/wiki/Ukraine._Memorandum_on_Security_Assurances

compensation for its nuclear weapons, it did not receive what it felt to be adequate security commitments from the other signatories of the Budapest Memorandum. This issue, along with the future of the Ukrainian nuclear industry and the international aid it received, will be reviewed in the final chapter.

Chapter 6: Ukraine Since the Budapest Memorandum

The final chapter of this thesis will examine the consequences of Ukraine's agreement to be a non-nuclear state. This examination will extend from 1994 unto the present day. Hitherto, we have only explored Ukraine's eventual *decision* to be non-nuclear and therefore this chapter will begin with a brief summary of Ukraine's shipment of strategic weapons to Russia and the final process by which Ukraine finally rid itself of all its nuclear weapons. A major consequence of Ukraine's elimination of its nuclear arsenal was the 1997 Treaty of Friendship between Ukraine and Russia. Likewise, after the Trilateral Agreement Ukraine signed new agreements with the USA which would help further prevent Ukrainian expertise regarding nuclear technology and delivery systems from being exported. More detail will be then be given about the nature and the specifics of American aid to Ukraine and its nuclear industry. Outside of the Nunn-Lugar program, France, Canada, and the European Union would also provide aid to help consolidate Ukraine and ensure that it remained a denuclearized state. Ukraine's dissatisfaction with the Budapest Memorandum and its lack of security guarantees will next be examined, which will lead to a final discussion on how contemporary Ukraine has chosen to showcase the example of its nuclear disarmament. Since 1994, Ukraine has become an accepted member of the international community, in large part because of the treaties that linked its nuclear industries to those of the USA and Western Europe.

Ukraine began to experience noticeable diplomatic and economic benefits after signing the Trilateral Agreement. Shortly before the two presidents travelled

to Moscow to sign it, Clinton informed Kravchuk that Ukraine would be invited to participate in NATO's Partnership for Peace program.[233] Though Ukraine never joined NATO (and is unlikely to do so in the near future), it has used the possibility of joining the Western alliance to keep Russia apprehensive and cautious in its relations with Kyiv. When Ukraine joined the PFP later in 1994, the possibility that it would continue to deepen its relationship with NATO seemed a distinct possibility.[234] After Ukraine's presidential elections in 1994, and the victory of Leonid Kuchma, relations with the United States improved even further.[235] Alongside Kuchma's much needed political and economic reforms, Ukraine quietly began to ship its remaining nuclear warheads to Russia for destruction. Nonetheless, despite American (and Western) aid, by 1994 American Congressional commissions were questioning the ability of Ukraine to exist as an independent state due to its deteriorating economic situation; therefore, the influx of additional foreign credit was a powerful tool that Ukraine could use to support its struggling economy.[236] In 1995, the World Bank agreed to offer

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[233] Andrew Higgins and Adrian Bridge, "Kravchuk Agrees to Rid Ukraine of Nuclear Weapons: Visegrad Four Sink Their Differences to Adopt US Proposals That Open the Door to Possible NATO Membership," *The Independent*, January 13, 1994, accessed 28/09/2013, http://www.independent.co.uk/news/world/europe/kravchuk-agrees-to-rid-ukraine-of-nuclear-weapons-visegrad-four-sink-their-differences-to-adopt-us-proposals-that-open-the-door-to-possible-nato-membership-1406521.html

[234] "Partnership for Peace Programme," *NATO*, accessed 28/09/2013, http://www.nato.int/cps/en/natolive/topics_50349.htm. The PFP program is an individualized bilateral relationship between a state and NATO designed to deepen their mutual level of cooperation. It has been used as a stepping stone towards NATO membership. For more information please see and follow the links available on the above NATO website.

[235] Dale B. Stewart, "The Russian-Ukrainian Friendship Treaty and the Search for Regional Stability in Eastern Europe," (MA Thesis, Naval Postgraduate School): 1997, 31, accessed 28/09/2013, http://www.dtic.mil/dtic/tr/fulltext/u2/a341002.pdf

[236] U.S. House. Commission on Security and Cooperation in Europe, *Focus on Severe Challenges Facing Ukraine/Briefing of the Commission on Security and Cooperation in Europe*, Washington D.C:1994, 1, accessed 28/09/2013, http://babel.hathitrust.org/cgi/pt?id=mdp.39015032145818#page/3/mode/1up. In 1994, it was estimated that Ukraine had 3.4 million unemployed. Given that Ukraine had an age dependency

Ukraine a substantial loan ($1 billion) on condition that it continued efforts towards privatization, though by this point Ukraine had only privatized 14% of the enterprises envisioned in 1993.[237] In a similar vein, Canadian Foreign Affairs Minister Lloyd Axworthy offered Ukraine $550 million in credit in 1996, while Canadian businesses agreed to invest $425 million in the Ukrainian economy.[238] Though Ukraine's economy is today still making the transition to a more market-based economy, it is no longer in danger of collapse.

In addition to receiving Canadian and other international loans, Ukraine would find 1996 an important year in several other respects. It adopted a new constitution in the summer, thus helping to remove some of the inconsistencies of the adapted 1978 Soviet constitution. After protracted debate ending with the threat by Kuchma of a referendum, it was agreed that Ukraine would be a

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ratio (the percentage of working age people in a state, aged 15-64) of 51.91 percent and that the CIA estimate for its population that year was 51.8 million, we can deduce that the working population of Ukraine in 1994 was 26.9 million, i.e. an unemployment rate 12.6 percent. This is a significant percentage in a mainly state-run economy; the government was facing serious technical and financial challenges. Direct statistics from the government of Ukraine cannot be used here because Ukraine did not start collecting census data until 2001. For access to the estimated unemployment figures for both 1994 (3.4 million) and 1995 (2.5 million), see Chrystyna Lapychak, "Unemployment in Ukraine May Cap 2.5 Million in 1995," *Radio Free Europe*, January 13, 1995, accessed 28/09/2013, http://www.rferl.org/content/article/1140852.html ; For access to Ukraine's age-dependency, see "Ukraine: Age Dependency Ratio," *Index Mundi*, accessed 28/09/2013, http://www.indexmundi.com/facts/ukraine/age-dependency-ratio; See also Central Intelligence Agency, "Ukraine,"*CIA World Factbook 1994*, accessed 28/09/2013, http://www.umsl.edu/services/govdocs/wofact94/wf950247.txt. For information on Ukraine's census, please visit: State Statistics Service of Ukraine, "All Ukrainian Population Census," accessed 28/09/2013, http://www.ukrcensus.gov.ua/eng/

[237] Ustina Markus, "World Bank Offers Credit Package to Ukraine," *Radio Free Europe*, November 20, 1995, accessed 28/09/2013, http://www.rferl.org/content/article/1141054.html; Chrystyna Lapychak, "Ukrainian Economic Update," *Radio Free Europe*, August 31, 1995, accessed 28/09/2013, http://www.rferl.org/content/article/1141008.html

[238] Ustina Markus, "Canada to Offer Some $550 Million in Credit to Ukraine," *Radio Free Europe*, October 25, 1996, accessed 28/09/2013, http://www.rferl.org/content/article/1141282.html

parliamentary-presidential republic, with the Cabinet of Ministers emerging from the shadow of the president as an independent branch of the executive.[239]

Another noteworthy accomplishment was that on June 1, 1996, Ukraine delivered its last nuclear warhead, though it retained the delivery vehicles for these weapons, such as bombers and ICBMs.[240] The Americans immediately noted this achievement in a press release in which they reiterated commitments made by Ukraine in the Trilateral Statement. They noted that since the Trilateral Statement had been signed, Ukraine had shipped 1,900 strategic nuclear weapons – most of which were located on SS-24 and SS-19 missiles, to Russia. By this point, the Americans had given Ukraine $400 million in aid, most of which was used for the destruction of the weapons and for any related infrastructure.[241]

Though Ukraine's relations with the West - and the US in particular – improved after 1994, relations with Russia continued to be difficult. After the resolution of the outstanding nuclear weapons problem, the next stumbling blocks in Russian-Ukrainian relations were the related issues of the Black Sea Fleet, the status of Sevastopol's naval base, and the status of the Crimea as part of Ukraine. Tensions peaked in April 1994 when Ukrainian commandoes arrested Russian officers suspected of involvement in an act of piracy. Ensuing negotiations defused the situation, though the only agreements reached were that Russia would

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[239] Bohdan Nahaylo, *The Ukrainian Resurgence* (Toronto: University of Toronto Press, 1999), 520-524

[240] Arms Control Association, "Ukraine Meets START-1 Obligations," *Arms Control Today* 31 (2001), accessed 28/09/2013, http://www.armscontrol.org/node/3081

[241] Office of the White House Press Secretary, "Removal of Nuclear Warheads From Ukraine," *White House Press Release*, (June 1, 1996), accessed 28/09/2013, http://www.ibiblio.org/pub/archives/whitehouse-papers/1996/Jun/1996-06-01-Fact-Sheet-on-Ukaraine-Nuclear-Warheads-Removal

lease its bases in Sevastopol in exchange for debt forgiveness.[242] In 1996, while Ukraine began to accrue more international aid and credit, its diplomatic relations with Russia deteriorated. During the fall, the Russian Duma, frustrated by the lack of an all-encompassing bilateral treaty between Russia and Ukraine and on the eve of a visit from President Kuchma, passed a bill preventing the division of the Black Sea Fleet and the transfer of any facilities or ships to Ukraine. Russian President Boris Yeltsin strongly opposed the bill, but the Duma criticized Ukraine for having "torpedoed [the] 15 previous agreements on the fleet."[243] Ukraine agreed to hand over a portion of its fleet to Russia (as a form of debt payment) once a lasting agreement was reached; however, Russia was also facing serious financial difficulties concerning this navy. In February 1997, Russian sailors of the Black Sea Fleet would receive about $1.9 million from various Russian cities for retrofitting and repairing the missile cruiser *Moskva* (the flagship of the BSF) and toward the construction of apartments for Russian sailors and their families.[244]

Nevertheless, an all-encompassing bilateral treaty between the two states was signed on May 31, 1997 in Kyiv. After Yeltsin's 1996 election victory, his position on Ukraine became more moderate because he no longer had to pander to

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[242] Tyler Felgenhauer, "Ukraine, Russia, and the Black Sea Fleet Accords," Woodrow Wilson School of Public Affairs, (Princeton University, 1999),12, accessed 28/09/2013, http://wws.princeton.edu/research/cases/ukraine.pdf

[243] Scott Parish, "Duma Passes Law Barring Division of Black Sea Fleet," *Radio Free Europe*, October 24, 1996, accessed 28/09/2013, http://www.rferl.org/content/article/1141281.html

[244] Peter Rutland, "Russian Cities Bail Out Black Sea Fleet," *Radio Free Europe*, February 20, 1997, accessed 28/09/2013, http://www.rferl.org/content/article/1141353.html; From 1995 to 1997, the city of Moscow - or more aptly the citizens of Moscow - was responsible for the construction of 398 apartments, see Florian Fossato and Vladimir Todres, "Russia/Ukraine: Black Sea Fleet Dominates Sevastopol's Future," *Radio Free Europe*, March 5, 1997, accessed 28/09/2013, http://www.rferl.org/content/article/1083829.html

nationalist hardliners in the Russian Duma. Given that Russia had never officially recognized Ukraine's borders, of crucial importance for Ukraine were Articles 1-3 of the treaty, which enshrined official Russian recognition of Ukraine's sovereignty and territorial integrity.[245] Articles 5-7 were designed to help normalize relations, calling for increased inter-governmental and inter-bureaucracy cooperation and for immediate consultation in the event of an emergency.[246] Russian fears that Russians living in Ukraine would face discrimination were assuaged by guarantees that each state would treat foreign nationals from the other signing party as they would their own; moreover, each state pledged not to pass legislation that harmed national minorities or violated their human rights.[247] Articles 14-22 were concerned with fostering economic links between the two states in transport, communication, energy, and aerospace industries.[248] The remaining articles called for increased cooperation in the fields of crime prevention, environmental protection (with special reference to Chernobyl), border control, and for development and exploitation of Black Sea port facilities and infrastructure.[249] The treaty would automatically be renewed every ten years unless one of the parties reneged on the agreement. This treaty

[245] Treaty on Friendship, Cooperation, and Partnership between Ukraine and the Russian Federation, Russia and Ukraine, Art. 1-3, May 31, 1997, accessed 28/09/2013, http://www.jstor.org.login.ezproxy.library.ualberta.ca/stable/pdfplus/41036701.pdf?acceptTC=true&; The only other treaty of this sort signed between Russia and Ukraine dated from Soviet times (Treaty between the Ukrainian Soviet Socialist Republic and the Russian Soviet Federative Socialist Republic of 19 November 1990). See Article 39. The Russian Duma did not ratify the treaty until 1999, see, "Russia Ratifies Friendship Treaty with Ukraine," *BBC World Service*, February 17, 1999, accessed 28/09/2013, http://news.bbc.co.uk/2/hi/europe/281231.stm
[246] Ibid., Art. 5-7
[247] Ibid., Art. 10-12
[248] Ibid., Art. 14-22
[249] Ibid., Art. 23-39; For a review of the treaty and for additional information, see Michael Specter, "Setting Past Aside, Russia and Ukraine Sign Friendship Treaty," *The New York Times*, June 1, 1997, accessed 9/28/2013, http://www.nytimes.com/1997/06/01/world/setting-past-aside-russia-and-ukraine-sign-friendship-treaty.html

was a broad attempt by both Russia and Ukraine to resolve several issues, most importantly territorial disputes, the BSF, and the question of outstanding Soviet debts (to be assumed by Russia), all of which promoted a more constructive framework for the future relations.[250] With Russia assuming outstanding Soviet debts, Ukraine's argument that it should receive Soviet assets in return for debt obligations was rendered invalid.

Since the Trilateral Statement did not deal with Ukraine's strategic weapon delivery systems and the complex technology behind their construction and proper use, a separate treaty needed to be signed to prevent the proliferation of this technology. The treaty that Ukraine needed to sign was the pre-existing, multilateral Missile Technology Control Regime (MTCR) of 1987. This treaty was designed to maintain control and surveillance over the export of missile equipment and its related materials and technologies in order to prevent the proliferation of WMD delivery vehicles. Ukraine had begun the process of acceding to this regime in 1994, when it signed the Memorandum of Understanding on the Transfer of Missile Equipment and Technology, which was to function "...by controlling exports of missile-related equipment and technology according to the MTCR Guidelines."[251] This memorandum would lay the groundwork through which Ukraine would later accede to the MTCR, which it joined in 1998. This would mark an "...important milestone in the ongoing adaptation of the Regime to the swiftly changing new realities of the post Cold

[250] "Ukrainian, Russian Presidents Sign Political Treaty," *Radio Free Europe*, June 2, 1997, accessed 28/09/2013, http://www.rferl.org/content/article/1141420.html
[251] US State Department, "US-Ukraine Missile Agreement," *State Department Fact Sheet on the Ukraine-US Memorandum of Understanding on the Transfer of Missile Equipment and Technology*, May 13, 1994, accessed 28/09/2013, http://www.fas.org/nuke/control/mtcr/text/940803-355651.htm

War era."[252] A similarly spirited agreement was signed the previous year, by Ukraine, the Russian Federation, Belarus, and Kazakhstan. This treaty, another Memorandum of Understanding, was similar to the Lisbon Protocol of 1992 in tying the new states to a pre-existing agreement, the 1972 Anti-Ballistic Missile treaty. This memorandum stated that the Soviet successor states would "...assume the rights and obligations of the former USSR under the Treaty and its associated documents."[253] Additionally, within the territories of the former Soviet Union, only one anti-ballistic missile system deployment would be permitted, this being the ABM system already built near Moscow.[254] These agreements represented a concerted effort by the international community to limit the possibility of Ukraine exporting strategic weapons-related technology.

In addition to Ukraine joining the MTCR, 1998 also marked the signing of a treaty of cooperation concerning the peaceful use of nuclear energy and research between the United States and Ukraine. The agreement, entitled "Atomic Energy: Peaceful Uses of Nuclear Energy," allowed for the transfer of information and research of a non-sensitive nature. The only way to transfer sensitive technology would be through an amendment of the treaty.[255] The treaty allowed for the transfer of nuclear materials that could be reprocessed, but not enriched.[256]

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[252] "Plenary Meeting of the Missile Technology Control Regime - Budapest," *Missile Technology Control Regime Press Release*, October 5-9, 1998, accessed 28/09/2013, http://www.mtcr.info/english/press/budapest.html

[253] "Memorandum of Understanding Relating to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of May 26, 1972," United States, Russia, Belarus, Kazakhstan, Ukraine, September 26, 1997, Art. 2, accessed 28/09/2013, http://www.fas.org/nuke/control/abmt/text/ad-mou.htm

[254] Ibid., Art. 6

[255] Atomic Energy: Peaceful Uses of Nuclear Energy - Agreement Between the United States of America and Ukraine, United States, Ukraine, May 6, 1998, Art. 3, accessed 28/09/2013, http://www.nti.org/media/pdfs/StateandUkrainePeaceNucMay1998.pdf?_=1316627913

[256] Ibid., Art. 4-6

Transferred materials also could not be used for military purposes and nuclear materials had to be properly physically secured in accordance with IAEA safeguards.[257] These points meshed well with the Nunn-Lugar program in that they tied the American and Ukrainian nuclear industries closer together, and given Ukraine's funding problems, they elucidated the requirements of each state. For example, if Ukraine could not adequately protect its nuclear materials, there was now a more streamlined channel through which it could express matters of mutual concern (for example, a poor security infrastructure). Through this treaty's emphasis on sharing of information, it would also become more difficult for corrupt scientists to hide illicit transfers of nuclear materials.

In the following decade, American aid was directed towards securing Ukraine's nuclear materials and destroying superfluous delivery vehicles. In 2004, Ukraine began to receive funding to improve training of its border services and customs in the detection of nuclear materials. By cooperating with the Ukrainian Ministry of Economic Development and Trade, the Defence Threat Reduction Office (the focal point for Cooperative Threat Reduction implementation in Ukraine) bolstered Ukrainian border services by providing funds for sophisticated inspection equipment, upgrades to maritime/river patrol craft, and an enhanced technical presence in the Chernobyl exclusion zone and along the Ukrainian-Moldovan border.[258] This program, which ran from 2004 until its completion in 2013, provided Ukraine with $144.45 million and trained 7,372

[257] Ibid., Art. 7-9
[258] US State Department, "WMD Proliferation Prevention Initiatives," *Embassy of the United States, Ukraine: Defense Threat Reduction Office*, accessed 28/09/2013, http://ukraine.usembassy.gov/dtro/wmd.html

border guards and 1,870 customs officers.[259] The CTR program also aided in the construction of the requisite training facilities, such as the George Kuzymycz Training Centre in Kyiv, named after the American Department of Energy official initially in charge of overseeing American aid to Ukraine's border services and nuclear industry. Kuzymycz personally provided funding for the project. He died in a tragic car accident in late 1997.[260] Another aspect of the CTR program in Ukraine was to provide funding for the State Space Agency of Ukraine and the Pavlograd Chemical Plant in the destruction of SS-24 missiles – specifically their motor casings and missile propellants.[261] Contracted through American and German companies, the motor casings were to be incinerated and the propellants converted into explosives to be used in Ukrainian mines.[262] The final element in the operation of the CTR in Ukraine was the Biological Threat Reduction Program, overseen by Senator Sam Lugar and then Senator Barack Obama and signed in 2005. This program called for joint research, the consolidation of dangerous pathogen samples in Ukraine, and enhanced disease surveillance.[263]

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[259] Ibid., "Ambassador Tefft Celebrates the Successful Completion of the Weapons of Mass Destruction - Proliferation Prevention Program," *Embassy of the United States, Ukraine*, accessed 28/09/2013, http://ukraine.usembassy.gov/events/wmd-ppp2013.html

[260] "George Kuzymycz Training Center for Physical Protection, Control and Accounting for Nuclear Material: 10 Years of Activity," (Kyiv: Kyiv Institute for Nuclear Research of the National Academy of Sciences of Ukraine, 2009), 4. See also Roman Woronowyzc, "Center Dedicated in Kyiv to Honor the Late George Kuzymycz," *The Ukrainian Weekly*, October 25, 1998, accessed 28/09/2013, http://www.ukrweekly.com/old/archive/1998/439816.shtml

[261] US State Department, "Strategic Nuclear Arms Elimination," *Embassy of the United States, Ukraine: Defense Threat Reduction Office*, accessed 28/09/2013, http://ukraine.usembassy.gov/dtro/snae.html

[262] "SS-24 (PC-22) EMC Elimination Facility in Pavlograd," Youtube Video, posted by NunnLugarCTR, December 26, 2012, http://www.youtube.com/watch?v=npdJJXYjFaw&feature=youtu.be

[263] US State Department, "Biological Threat Reduction Program," *Embassy of the United States, Ukraine: Defense Threat Reduction Office*, accessed 28/09/2013, http://ukraine.usembassy.gov/dtro/btrp.html

In December 2008, the US-Ukraine Charter on Strategic Partnership was signed in Washington. This new agreement reaffirmed the commitment of both states to limiting the proliferation of weapons of mass destruction and any associated technologies through currently existing international agreements.[264] The United States also reconfirmed the importance of - and its continued adherence to - the Trilateral Statement and the Budapest Memorandum, in which it offered security assurances to Ukraine.[265] After his re-election, President Barack Obama announced his commitment to the continuation of the CTR program.[266] By the end of 2012, the Nunn-Lugar program had released an estimated $8 billion in aid to Soviet nuclear inheritor states and had destroyed over 7,500 nuclear warheads. Ukraine's portion was $1.3 billion.[267] It is difficult to gauge the full extent of the Nunn-Lugar program's effect on the global geo-political situations, but to date, the governments of the USA, Russia, Belarus, Kazakhstan, and Ukraine have been largely successful in their efforts to prevent nuclear proliferation. In this respect, the CTR program has been a highly successful accomplishment.

Though the United States was by far the largest contributor to Ukraine's efforts to become a non-nuclear state, it was not alone. Canada also provided aid to Ukraine under the aegis of the Global Partnership (GP) program. This program,

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[264] US-Ukraine Charter on Strategic Partnership, United States and Ukraine, Section II, Art., 4, December 19, 2008, accessed 28/09/2013, http://ukraine.usembassy.gov/strategic-partnership.html
[265] Ibid., Preamble, Art., 4
[266] Barack Obama, "CTR 20th Anniversary - President Obama's Commitment," Youtube Video, posted by NunnLugarCTR, December 15, 2012, http://www.youtube.com/watch?v=3820TKBcTK8&feature=youtu.be
[267] Mark Thompson, "Nunn-Lugar No Longer?" *Time*, October 16, 2012, accessed 28/09/2013, http://nation.time.com/2012/10/16/nunn-lugar-no-longer/; US State Department, "Senator Lugar Visits Ukraine," *Embassy of the United States, Ukraine: Defense Threat Reduction Office*, accessed 28/09/2013, http://ukraine.usembassy.gov/press-releases/lugar2012.html

established at the 2002 G8 meeting in Kananaskis, Alberta, had the goal of raising $20 billion in aid to countries of the former Soviet Union - Canada pledged to provide $1 billion over the coming decade.[268] By 2007 (the last fiscal year available in the latest five-year report), Canada had provided roughly $300 million in GP aid.[269] After 2001, Canadian foreign policy began to see weapons of mass destruction (WMD) as a much more serious threat, and funding to the former USSR increased, as it did amongst other G7 members.[270] In its aid to Russia, Canada established a bilateral working relationship and could provide aid directly, while in its aid to Ukraine, Canada "piggybacked" on existing American programs, such as the CTR program.[271] Like their American counterparts, Canadian officials recognized the practicality of finding employment for former Soviet physicists and scientists and therefore helped fund technology centres in Moscow and Kyiv. In this way, Canadian aid managed to find employment for over 2,300 former Soviet nuclear weapons scientists.[272] Other forms of Canadian assistance were $100 million to Russia for decommissioning nuclear submarines

[268]Canada, Department of Foreign Affairs and International Trade Canada. *Summative Evaluation - Global Partnership* Program, Ottawa [2008], Executive Summary: Program Profile, Accessed 28/09/2013, http://www.international.gc.ca/about-a_propos/oig-big/2008/evaluation/gpp_ppm08.aspx?lang=eng&view

[269] Ibid.

[270] Ibid., Section 2.1

[271] Canada, Department of Foreign Affairs and International Trade Canada, *Summative Evaluation - Global Partnership Program Nuclear and Radiological Security*, Ottawa [2008], Section 4.1, Accessed 28/09/2013, http://www.international.gc.ca/about-a_propos/oig-big/2008/evaluation/nrs_snr08.aspx?lang=eng&view=d. For information on other American programs through which Canada operated, see US Department of Energy, "Second Line of Defense Program," *National Nuclear Security Administration*, accessed 28/09/2013, http://www.nnsa.energy.gov/aboutus/ourprograms/nonproliferation/programoffices/internationalmaterialprotectionandcooperation/se

[272] Canada, Department of Foreign Affairs and International Trade Canada. *Summative Evaluation - Global Partnership* Program, Ottawa [2008], Section 2.3.

and $5 million for Ukrainian border security and detection equipment, particularly at Kyiv's Boryspil airport.[273]

France and the European Union also gave extensive aid to Ukraine. In September 1998, Ukraine and France signed an Agreement on the Development of Peaceful Uses for Nuclear Energy scheduled to last for twenty years unless renewed. This agreement echoed the peaceful energy use agreement signed by United States and Ukraine that same year. The French-Ukrainian agreement called for joint research (both basic and applied in the fields of agronomy, medicine, and industry), exchanges of staff and expertise, organization of joint scientific conferences, and the transfer of related or needed materials and equipment.[274] This agreement also required each signatory to provide for the physical safety of required and transferred materials and personnel in accordance with International Atomic Energy Agency (IAEA) regulations.[275] This French-Ukrainian accord, along with its American counterpart, served as a springboard from which Ukraine could expand its cooperation with the international community regarding its nuclear industry.

In 2005, Ukraine signed an agreement with the European Atomic Energy Community (EURATOM) on Cooperation in the Peaceful Uses of Nuclear Energy, which would automatically be renewed every five years unless one of the

[273] Ibid.; See also Department of Energy, "U.S., Ukraine, and Canada Complete Major Joint Border Security and Non-proliferation Effort," *National Nuclear Security Administration*, December 8, 2008, accessed 28/09/2013, http://nnsa.energy.gov/mediaroom/pressreleases/u.s.-ukraine-and-canada-complete-major-joint-border-security-and-nonprolifer

[274] Accord de Coopération entre le gouvernement de la République Française et le gouvernement de l'Ukraine pour le développement des utilisations pacifiques de l'énergie nucléaire, France and Ukraine, September 3, 1998, Art., 2, accessed 28/09/2013, http://www.nti.org/media/pdfs/91_1.pdf?_=1316627913. This agreement did not come into force until June 13, 2000. See Articles 16 and 17.

[275] Ibid., Art., 11

parties opted to withdraw. Like the French and American treaties before it, this agreement called for nuclear safety, the exchange of research and personnel, and for measures to prevent nuclear proliferation. Unlike the others, it also called for cooperation in the field of nuclear fusion. [276] As Ukraine became more integrated with its European neighbours, as exemplified by its numerous treaties on nuclear energy use, it could better leverage these new relations to its advantage, particularly concerning Chernobyl.

After the initial disaster in 1986, an impromptu sarcophagus was erected around the destroyed (and radioactive) reactor. However, it was designed to last only for thirty years and given Ukraine's economic difficulties, it could not afford the needed renovation. The cost of the new facility is 950 million-1.54 billion euro (or $1.35 billion-$2.2 billion based on April 2011 exchange rates).[277] International donors covered most of the projected expenses– according to the European Bank for Reconstruction and Development (EBRD), by January 2011, 864 million euro ($1.14 billion) had been raised from over thirty different sources.[278] In March 2013, the EBRD announced that it would provide Ukraine's

[276] Agreement between the European Atomic Energy Community and the Cabinet of Ministers of Ukraine for
Co-operation in the Peaceful Uses of Nuclear Energy, European Union and Ukraine, April 28, 2005, Art., 4-8, accessed 28/09/2013,
http://ec.europa.eu/world/agreements/downloadFile.do?fullText=yes&treatyTransId=10181
[277] "Giant 100-meter Sarcophagus Constructed at Chernobyl Nuclear Plant," *RT*, November 28, 2012, accessed 28/09/2013, http://rt.com/news/chernobyl-new-safe-confinement-773/; The EBRD and the company in charge of constructing the "New Safe Confinement," put the cost at 1.54 billion euro and for construction to be finished in 2015. See "NOVARKA and Chernobyl Project Management Unit Confirm Cost and Time Schedule for Chernobyl New Safe Confinement: Assembly of New Structure to be Finalized in mid-2015," *European Bank for Reconstruction and Development*, April 8, 2011, accessed 28/09/2013,
http://www.ebrd.com/pages/news/press/2011/110408e.shtmlhttp://www.ebrd.com/pages/news/press/2011/110408e.shtml
[278] Prices are based on the January 2011 exchange rate."Chernobyl 25 Years On: New Safe Confinement and Spent Fuel Facility," *European Bank for Reconstruction and Development*,

state atomic energy company with a new loan to help cover the cost of updating Ukraine's other nuclear power stations, in particular those created in Rivne and Khmelnytsky to compensate for Chernobyl's closure in 2000.[279] Though loans are not optimal for Ukraine given its financial state, they are better than the alternative: a decaying and uncared for nuclear infrastructure. Since Ukraine had normalized its relations with Western powers, it was able to accede to numerous treaties that aided its nuclear industry and made it apparent to the world that unless serious financial aid was given, this industry would continue to deteriorate.

Though Ukraine was successful in its fundraising efforts for its aging nuclear reactors, it did not realize all of its goals. It still had not received adequate security guarantees, and was left with only the assurances of the Budapest Memorandum. The authorities made clear their dissatisfaction with the Memorandum, in letters to the Non-Proliferation Treaty review conference. In 2009 for example, the Ukrainian delegation to the NPT review conference stated that the climate of global security has changed since 1994 and that it still found itself outside of any security blocs or alliances, despite additional security assurances from China and France. The memorandum simply allowed for consultation when threats emerged and if required, UN Security Council

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January 2011, 1, accessed 28/09/2013, http://www.ebrd.com/downloads/research/factsheets/chernobyl25.pdf. Of this amount, Canada donated $34.9 million. Presumably this figure is in Canadian dollars, unadjusted to inflation. See Canada, Department of Foreign Affairs and International Trade Canada. Summative Evaluation - Global Partnership Program, Ottawa [2008], Section 8.2, Accessed 28/09/2013. http://www.international.gc.ca/about-a_propos/oig-big/2008/evaluation/gpp_ppm08.aspx?lang=eng&view=

[279] Ministry of Foreign Affairs of Ukraine, "EBRD to Provide 300 Million Euros to Make Ukrainian Nuclear Power Plants Safer," *Embassy of Ukraine to the United Kingdom of Great Britain and Northern Ireland: Ukraine* Digest, March 28, 2013, accessed 9/28/2013, http://uk.mfa.gov.ua/en/press-center/ukraine-digest/6-issue-5-march-28-2013/41-ebrd-to-provide-300-million-euros-to-make-ukrainian-nuclear-power-plants-safer

involvement. Any resolution put forward in the Security Council could always be subject to a veto.[280] Therefore, Ukraine proposed that a new international treaty be created to remedy these shortcomings.[281] In the summer of 2010, Ukraine sanctioned a law reaffirming its status as a non-nuclear state. Moreover, this resolution promised that the Cabinet of Ministers would prepare an internationally binding treaty that would expand the provisions of the Budapest Memorandum to acquire for Ukraine security guarantees from the five permanent Security Council members.[282] Such views were reiterated by the head of Parliament, Volodymyr Lytvyn, who in the spring of 2011 stressed the need for multilateral treaties to ensure regional and global security. This was important for Ukraine given that the Budapest Memorandum was not legally binding in the sense that it did not give security guarantees. Therefore, signatories did not need their parliaments to ratify the treaty. Lytvyn also called on the UN Security Council to prepare a new security treaty, while stressing Ukraine's willingness to work with the United States and Russia to create a new security framework for Europe and the Atlantic world.[283]

Though Ukrainian nationalists would call for a restoration of Ukraine's nuclear forces in the 2012 parliamentary elections (and the mobilization of

[280] NPT Review Conference, *Statement by the Representative of Ukraine at the Third Session of the Preparatory Committee of the 2010 NPT Review Conference*,2, accessed 28/09/2013, http://www.nti.org/media/pdfs/2009PrepCom_SI_Cluster1_Ukraine.pdf?_=1317149324
[281] Ibid., 2-3
[282] "Rada ukhvalyla postanovu pro bez'yadernyy status Ukrainy(The Rada has approved a decree on the de-nuclearized status of Ukraine)," *Interfax-Ukrainy*, July 6, 2010, accessed 28/09/2013, http://ua.interfax.com.ua/news/general/43109.html
[283] Viktoriya Milyuta, "Ukraina mae domahatysya nadannya Budapeshts'komu memorandymy yurydychnoho kharakteru – V. Lytvyn (Ukraine has to demand the granting of a legal character to the Budapest Memorandum – V. Lytvyn) ," *UNN*, April 4, 2011, accessed 28/09/2013, http://www.unn.com.ua/uk/news/322417-ukrayina-mae-domagatisya-nadannya-budapeshtskomu-memorandumu-yuridichnogo-harakteru--v.litvin

Ukrainian society for total war),[284] their views were hardly representative of Ukrainian society at large. Leading Ukrainian figures from the nuclear weapons era remained resolute in their decision to make Ukraine nuclear-free. Borys Tarasyuk, Ukraine's foreign minister at the time of disarmament, compared Ukraine's possession of nuclear weapons to a suitcase without a handle, adding that though the weapons had geo-strategic value they could not be guaranteed as a safeguard versus aggressive acts. He added that if Ukraine had kept them, paradoxically it would have become more closely tied with Russia and in this way lost independence, due to its inability to service these strategic weapons.[285] Kravchuk, Ukraine's first president, maintained his position that Ukraine needed to relinquish its nuclear arms to avoid economic sanctions. Moreover, it did not produce and could not maintain these expensive weapons, which would remain under Moscow's control.[286] Ukraine's current administration supports disarmament and is committed to working with its allies to prevent proliferation. In March 2013, in recognition of Ukraine's success in meeting its deadlines in its shipments of enriched uranium, the United States awarded Ukraine a $67 million grant towards a new research facility. The following month, President Viktor Yanukovych announced that Ukraine had almost fulfilled its START-1

[284] "Ukrainian Nationalists bring Nuclear Arms to Election Fight," *RT*, September 6, 2012, accessed 28/09/2013, http://rt.com/politics/ukrainian-nationalists-put-nuclear-498/. The nationalists in question belonged to the Ukrainian Nationalists Assembly – Ukrainian People's Self-Defense Party.

[285] Borys Tarasyuk, "Independence or Nuclear Weapons for Ukraine," Interview with the Brookings Institute, Youtube Video, posted by Brookings Institution, uploaded May 9, 2011, http://www.youtube.com/watch?v=gT7k0BYOF_g

[286] Kseniya Osetrova, " L. Kravchuk pro yaderne rozzbroyennya Ukrainy, y nac ne bulo al'ternatyvy (L. Kravchuk on the nuclear disarmament of Ukraine, we had no alternative)," *UNN*, August 27, 2011, accessed 28/09/2013, http://www.unn.com.ua/uk/news/453783-l.kravchuk-pro-yaderne-rozzbroennya-ukrayini:-u-nas-ne-bulo-alternativi

obligations.[287] The veracity of that statement was reinforced by the fact that Ukraine had only two remaining extraction sites.[288] Within a short while, the disarmament journey Ukraine embarked on over twenty years ago will be complete.

This chapter has sought to recount the evolution of Ukraine since it finally and resolutely decided to disarm itself in 1994. Ukraine's economic and political structure were briefly analyzed to allow for a more detailed examination of the numerous treaties and agreements signed since the Budapest Memorandum. Tensions with Russia have diminished but not disappeared since the 1997 Treaty of Friendship. The peaceful use of nuclear energy was the subject of several agreements that Ukraine signed with its new Western partners. Through disarmament, Ukraine allowed itself the opportunity to develop normalized relations with Russia and the West. At the same time, Western aid must be given credit for extricating Ukraine from what would otherwise have been a difficult situation. Though certain segments within Ukraine today support a return to nuclear weapons, Ukraine's current and past political elite remain convinced of the wisdom of nuclear disarmament and are likely to continue supporting initiatives that benefit Ukraine economically and diplomatically, thereby ensuring the country remains an active and willing member of the NPT.

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[287] "Ukraine to Continue Nuclear Cooperation with the US – Yanukovych," *RIANOVOSTI*, March 20, 2013, accessed 28/09/2013, http://en.rian.ru/world/20130320/180142886/Ukraine-to-Continue-Nuclear-Cooperation-with-US--Yanukovych.html; "Viktor Yanukovych: Ukraine Almost Finished with Fulfillment of Obligations Under Strategic Arms Limitation Treaty," *Party of Regions*, May 21,2013, accessed 28/09/2013, http://partyofregions.ua/en/news/519b8a93c4ca429627000011

[288] Office of the White House Press Secretary, "FACT SHEET: Ukraine Highly Enriched Uranium Removal," *White House Press Release*, (March 27, 2012), accessed 9/28/2013, http://www.whitehouse.gov/the-press-office/2012/03/27/fact-sheet-ukraine-highly-enriched-uranium-removal

Conclusion

This thesis has examined the process of Ukraine's nuclear disarmament and the factors that influenced it to first retain, and then later relinquish, these weapons. When Ukraine declared its sovereignty in 1990 and began the process that would eventually lead to its independence, it proclaimed that it intended to become a non-nuclear state and renounce its nuclear arsenal. However, it soon reneged on this commitment. Amidst Russian claims that infringed on Ukraine's territory and sovereignty, Ukraine assumed administrative control over its nuclear arsenal and halted the shipment of its tactical nuclear weapons to Russia. Ukraine viewed integration with the Commonwealth of Independent States, particularly the CIS's joint military command, as an mechanism through which Russia could assert more control over other member states. Further complicating matters was Russia and Ukraine's dispute over the division of the Black Sea Fleet. Failure to reach an agreement on the division of the fleet spilled over into negotiations concerning nuclear weapons and vice-versa.

Prior to 1996, Ukraine was governed by a modified 1977 Soviet constitution. This constitution left Ukraine with many unusual laws and a political system that was very conducive to infighting. The legislative efforts of Ukraine's parliament during this time were not concerned with its economy, the focus instead revolving around the building of state institutions. This lack of focus on economic reforms brought about the near collapse of the Ukrainian economy. The Ukrainian Parliament was roughly divided between right - and - left-wing voting blocs and since elements of the leftist coalition could find common ground with

the more nationalistic right, a consensus could be reached with regard to Ukraine's security needs – specifically the outstanding issue of its nuclear weapons. Ensuing attempts by Russia and the USA to reach a lasting agreement with Ukraine initially proved fruitless, especially since the Ukrainian parliament saw the weapons as a security guarantee. The only way in which these weapons would be relinquished was if several conditions were met, namely the guarantee of Ukrainian security, the destruction of shipped nuclear warheads, and compensation for these warheads.

We have shown, however, that as the economy continued to contract, it became apparent that Ukraine could not possibly afford its nuclear weapons. Ironically, were Ukraine to keep its arsenal, these weapons would have required Russian expertise and parts and there is every likelihood that the country would have had to sacrifice its sovereignty. Equally important for Ukraine was the intense diplomatic lobbying on the part of the USA and Russia. Once the USA began to involve itself in negotiations with Ukraine, through the Nunn-Lugar program, a serious attempt was made to meet Ukrainian demands. The USA provided two things Russia could not: it had no historical or cultural reason to infringe on Ukrainian sovereignty and it could much more readily provide Ukraine with much needed financial aid and compensation for removed weapons. By tying financial aid to disarmament, the Americans convinced Ukrainian leaders of the prudence of disarming, and as a result, Ukraine signed the Trilateral Statement in early 1994. This agreement unconditionally bound Ukraine to

disarmament and non-proliferation. By disarming itself, Ukraine normalized its relations with both the West and Russia.

The process of disarmament entails the securing of nuclear materials and related technology, and in this sense disarmament is a process that is still not entirely complete, given Ukraine's continuing shipment of enriched uranium to the United States. As long as these materials remain in storage and are not blended down into non-weapons grade status, rogue elements within Ukraine or outside could conceivably use them to help produce a bomb. Technically, Ukraine has the infrastructure and know-how necessary to construct nuclear weapons. Fortunately for the sake of non-proliferation, Ukraine has signed numerous treaties which preclude it from developing or possessing nuclear weapons. Other treaties have tied the Ukrainian nuclear industry to those of Western Europe and the USA and in this way make it much more difficult for Ukraine even covertly to move towards arming itself with a new generation of nuclear weapons.

This thesis has made use of a variety of sources, though in particular it has relied upon government sources and treaties. The purpose behind this selection has been to highlight the importance of political actors and the state in this process. Ukraine, though divided along political and regional lines, ultimately wanted to join the international community as a respected and equal member. Western and Russian pressure made it clear that Ukraine could only do this if it relinquished its nuclear arsenal. This pressure, when combined with Ukraine's pre-existing wish to join the international community, ultimately prompted Ukraine to cooperate with two major powers. By using these primary sources, this

thesis advances the works written on this subject, which for the most part rely on secondary sources. Another manner in which this thesis differentiates itself from similar works is its scope. It has attempted to analyze the overarching factors that influenced decision makers in Kyiv, Moscow, and Washington. No one factor prompted Ukraine to hold on to its nuclear arsenal, just as no single factor made it disarm itself. This study has highlighted the various nuances and events that influenced Ukraine and thus filled gaps regarding the scope of the difficulties facing Ukraine during the early 1990s. It has demonstrated the importance of international aid given to Ukraine for disarmament by the international community since 1994.

There still remains a great deal of research to be done on Ukraine's nuclear disarmament. All the factors examined in this thesis, excepting perhaps American diplomatic involvement, warrant further research. Of particular interest would be a study of the men and women involved in the Ukrainian disarmament process in terms of their attitudes and experiences towards the politics of the disarmament process and to the division of Soviet rocket forces. Further research could also be devoted to the Ukrainian nuclear industry since 1994 and how Ukraine has taken steps to secure its borders and airports in order to combat nuclear proliferation and terrorism. Once such studies have been completed, more thorough summaries of Ukraine's nuclear disarmament could be made, which will move beyond the confines of political history into the more personal spheres of cultural and social history. This thesis has demonstrated that it was Ukraine's responses to Russian pressure and territorial demands that prompted both

retention and ultimately release of the weapons remaining on its territory after independence. The world as a result became a safer place and the country took its place as an acceptable member of the international community.

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