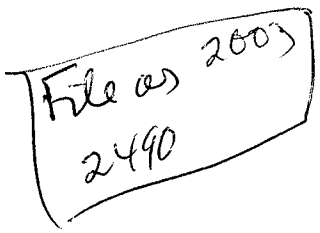


The Denuclearization of Ukraine and its Application Elsewhere

A semester research paper presented
by
Robert Stephen Mathers

To Professor Martin Feldstein

Course requirement for
Economics 2490
Spring, 2003

Harvard University

Cambridge, Massachusetts

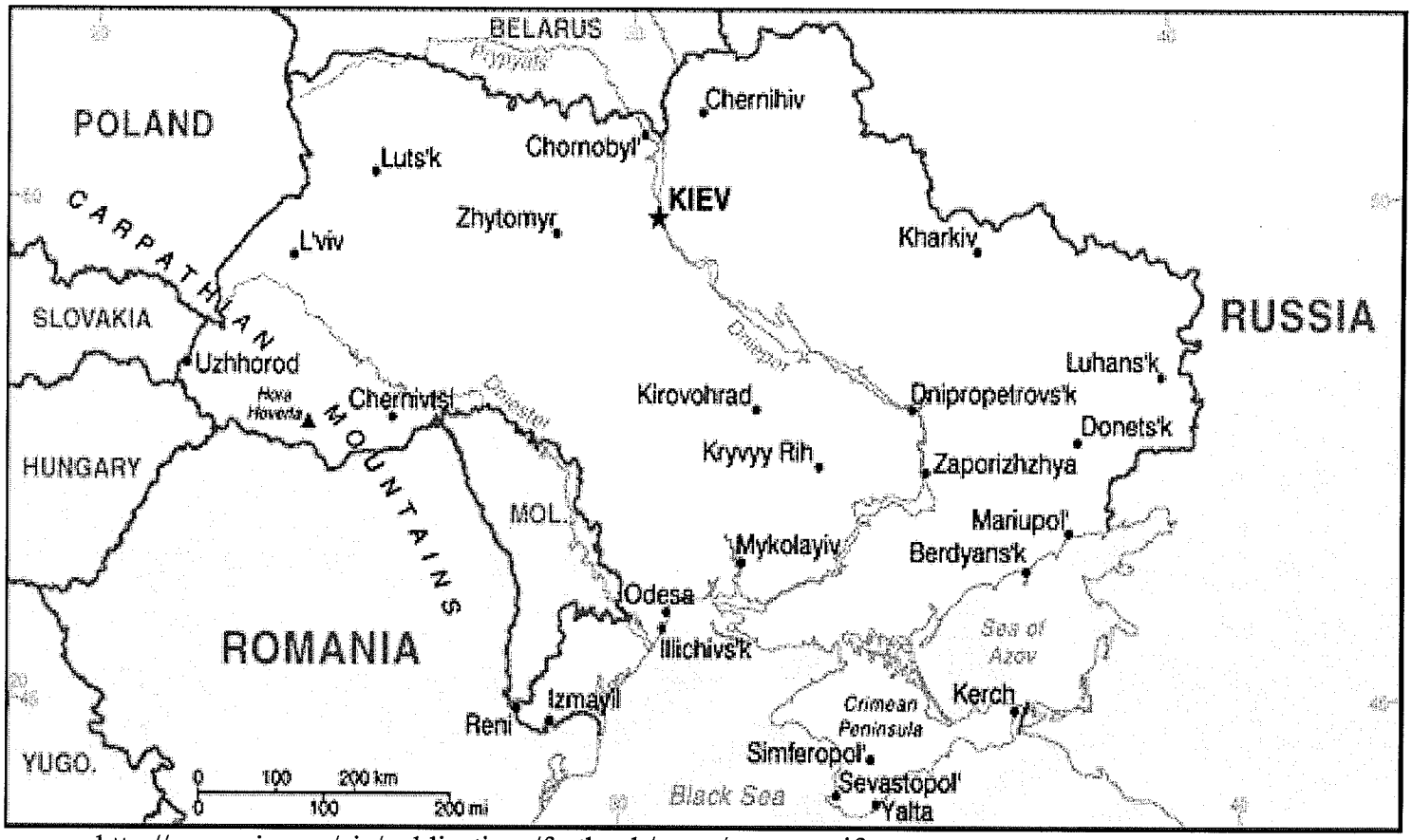
May, 2003

CONTENTS

ACRONYMS USED

ABM	Anti-Ballistic Missile
CIS	Commonwealth of Independent States
CSCE	Conference on Security and Cooperation in Europe
CTR	Cooperative Threat Reduction Program
DOD	Department of Defense (U.S.)
DSWA	Defense Special Weapons Agency
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
NPT	1968 Nuclear Non-Proliferation Treaty
START	Strategic Arms Reduction Talks
WMD	Weapons of Mass Destruction

MAP OF UKRAINE



http://www.cia.gov/cia/publications/factbook/maps/up-map.gif

Introduction

Ten years ago, Ukraine, the third most powerful nuclear-armed country in the world, was in the midst of a profound economic crisis, as well as sharply divided over the fate of its own nuclear arsenal. For the Unites States, which was still adjusting to the relationship with the post-Cold War world order, there was no choice – Ukraine had to rid itself of nuclear weapons to be an accepted member of the world community. An unfriendly Russia was hinting at intervention while simultaneously assisting pro-Russian secessionist movements within Ukraine. To some Ukrainian leaders, their nuclear arsenal was the only means with which it could retain its independence from Russian hegemony. To many observers, including some in Ukraine, the viability of the nation itself was at stake. A crisis was forming that had grave implications for all nations concerned. Finally, after a series of stalled agreements and difficult negotiations, Ukraine relented and relinquished its nuclear ambitions, thereby ending a standoff that had begun three years earlier.[1] Within another three years, Ukraine would be completely nuclear-free, a signatory of the nuclear Non-Proliferation Treaty (NPT), and would be negotiating with the European Union and NATO about active partnerships. Few could argue against the denuclearization of Ukraine as a success story for nonproliferation and world stability. Without firing a single shot, the United States and its allies were able to eliminate a tremendous nuclear arsenal that had been aimed at them. The tally of weaponry is both sobering and impressive.

- The safe return to Russia of 1,900 strategic warheads
- Elimination of 111 SS-19 Intercontinental Ballistic Missiles

---

[1] The sequence of negotiations, intense debates, and international pressure which characterized the time period in discussion is aptly described in two Harvard studies: Victor Zaborsky, "Nuclear Disarmament and Nonproliferation: The Evolution of the Ukrainian Case," CSIA Discussion Paper 94-05, Kennedy School of Government, Harvard University, June 1994; and John Buntin, "The Decision to Denuclearize: How Ukraine

- Elimination of 144 SS-19 ICBM launchers
- Elimination of 51 SS-24 ICBM launchers
- Elimination of 46 heavy bombers (Tu-160, Tu-95, and Tu-22M)
- Destruction of 483 Kh-55 air-to-surface missiles[2]

In real dollars the endeavor cost the United States less than the price of one B-1 bomber. (see Appendix B) Another way to look at this is "how many B-1s would we need to overcome the above systems if they were not eliminated?"

Such speculation is not the focus of this paper. However, the ability to achieve these results *is* the focus of this paper. This paper is a study of that critical period in Ukraine's decision-making - the decision to be a nuclear power, or in the case which will be discussed here, to denuclearize. The case of Ukraine shows us why, if we wish to keep nations from "going nuclear" it is crucial to gain a thorough understanding of their concerns *from that nations' perspective.* Merely using "sticks and carrots" while maintaining a patronizing policy about nuclear proliferation is not enough to convince a nation to alter its vital national interests. Rather, by addressing those concerns directly and in a prioritized manner, the U.S. and its allies can use the appropriate "sticks and carrots" which will impact decision-making and achieve maximum results. I intend to address some of the factors that affected the decision-making during the three tumultuous years after Ukrainian independence, when that nation's leadership grappled with the decision of whether to keep or relinquish its nuclear arsenal. With the benefit of hindsight, I will examine some of the results of Ukraine's decision to both its economy and defense structure. Finally, I will look at the utility of using Ukraine's denuclearization example as a model for the United States on how to use incentives (or disincentives) to keep countries

---

Became an Non-Nuclear Weapons State," Kennedy School of Government Case Program C14-98-1425.0, Harvard Ukrainian National Security Program, 1997.

from developing nuclear arsenals, or if they have them already, to relinquish them.

Part I. DENUCLEARIZATION IN RETROSPECT

Ukraine as a Case Study for the United States

There is literally no decision for a modern nation that is as grave as the one which determines its nuclear status, either to attain, keep, or relinquish nuclear weaponry. Crossing the nuclear threshold is a benchmark in the overall defense and international policy of any country, one fraught with immediate and long term risks, as well as relative benefits. Since the end of the Cold War, the status of a nuclear power has taken on a new meaning as now the declared nuclear powers are no longer primarily divided between NATO and Soviet camps (China and Israel being distinct exceptions). Indeed, since the breakup of the Soviet Union in 1991, the fear that a multi-polar world would lead to uncontrolled nuclear proliferation has partly been realized in South Asia. The nuclear aspirations of other nations today, most notably North Korea and Iran, make the issue just as important now as it was ten years ago.

The immediate defense and international implications for a move toward nuclear-power status are immediate and usually obvious to all. The economic implications, both from the changes in defense spending to the potential loss of economic guarantees are less immediate, but usually more quantifiable. Less calculable are the moral, cultural and political outputs that such a decision has upon a country. From national pride to moral principle, the status of a nuclear declaration (in whatever form) can alter intangible perceptions both outside and inside a country. The types of costs that go along with such a decision can be economic (budgetary), political (domestic gain from showing national resolve vs. being a peacemaker), and international (sanctions, loss of aid assistance, help in dismantlement - or creation).

---

[2] Figures provided are from the Defense Threat Reduction Agency (DTRA) office – Kiev, March 2003.

For the United States, it must remain vigilant to the rise of nuclear aspirations of any nation who might not adhere to NPT principles or who could destabilize international structures. Being in a unique economic and military position with regard to other states, the U.S. has the ability to leverage incentives and disincentives in an attempt to dissuade a nation form pursuing, or persuade them to give up their nuclear ambitions. It is a way of convincing a nation that it is in their best interests to remain non-nuclear. To do so, the U.S. must look at the various economic, political, and military/security aspects from that nation's perspective and see what issues hold the most relative value. I would agree in principle with one analyst's observation:

> The nonproliferation community must be skeptical about transferring Ukraine's experience with disincentives to other cases of nuclear possession These disincentives are unlikely to dominate the security debates in Iran, Iraq, or North Korea given their interests in nuclear deterrents. Ultimately, Ukraine's example is dangerous if it convinces the international proliferation community that incentives to nuclear possession are not as credible or persuasive as disincentives.[3]

However, I would add that closer analysis of that nation's specific concerns will better allow the nonproliferation community to formulate the proper incentives and disincentives that will achieve desired results.

Thus the bottom line question for any nuclear-aspirant nation must become: Does the cost of retaining nuclear weapons or maintaining a nuclear capability outweigh the costs of their removal or loss of that capability? That was indeed the question posed to Ukraine ten years ago.

Is Ukraine An Appropriate Case Study?

Using the Ukrainian case is controversial in comparison to other states due to the unique nature by which Ukraine came to be a nuclear power in the first place. The Ukrainian government in 1991 inherited its nuclear arsenal; it did not acquire them on its own. Some may

[3] William C. Martel, "Why Ukraine Gave Up Nuclear Weapons," in *Pulling Back from the Nuclear Brink* ed. Barry R. Schneider and William L. Dowdy (London & Portland, OR: Frank Cass, 1998), 100-101.

argue that "Ukraine did not go through the painful and costly process of developing a nuclear weapon capability alone,"[4] and the Ukrainian government made no special extra effort to acquire nuclear programs, nor did it make the acquisition and development efforts that other states go through in their quest to become nuclear powers. Thus, it might seem that using the Ukrainian example as a model for comparison with, say, India, Pakistan or North Korea would be basing it on incompatible circumstances.

I disagree with the assertion that Ukraine did undergo an extensive effort to build a nuclear arsenal. I would argue, however, that the circumstances, while different, are fundamentally not exclusive. Like a nation acquiring nuclear weapons today, Ukraine (as the Ukrainian Soviet Socialist Republic until 1991) invested a tremendous amount of capital into the development of a nuclear arsenal, albeit not one under its control. The Dnipropetrovs'k missile plant was one of the largest producers of missiles for the Soviet Union, employing thousands. Military production in the Ukrainian Soviet Socialist Republic constituted an estimated one third of the total Soviet military production and 38 percent of Ukraine's total industrial production.[5] Government sources suggest that one year after independence, 1,840 research centers and enterprises and 2.7 million people – 5 percent of Ukraine's total population – were engaged in military production. Of those enterprises, 700 of them, employing 1.3 million people, produced exclusively for the military.[6] Though it may not have been of Ukrainians' will, they nonetheless were allocating huge amounts of their human capital into the development and production of a military and nuclear capability. I would argue then that if a change of government were to take place in another nuclear-armed state, they too might be faced with the option given to the

[4] Neil Joeck, "Nuclear Proliferation and Nuclear Reversal in South Asia," in Schneider and Dowdy, 127.
[5] Victor Zaborsky, "Export Control Developments in Ukraine," in *Dangerous Weapons, Dangerous States* ed. Gary K. Bertsch and William C. Potter (New York & London: Routledge, 1999), 54.

Ukrainians when they achieved independence in 1991. That option would be whether or not to keep or relinquish the arsenal bequeathed to them – an arsenal that had cost their nation dearly thus far. If that were to happen, the circumstances in the Ukrainian disarmament decision would be quite applicable.

Using the scenario above, would nations like India and Pakistan be appropriate instances for comparison with the Ukrainian experience? Looking at India and Pakistan's circumstances reveals that the two nations' situations are not as different as one might think. The major difference between their nuclear development and Ukraine's was the scale of development and the level of secrecy surrounding the India and Pakistan's program. In India, the 1998 nuclear tests came as a surprise to most of the population, the vast majority of which fully supported the tests at first. However, that response was moderated after Pakistan carried out its tests.[7] Like Ukraine in the early 1990s, both India and Pakistan saw their nuclear weapons as conveyors of status, prestige, and security. Pakistan in particular had increased feelings of vulnerability after being cut off from military and nuclear cooperation from the U.S. in 1990. This sentiment, as will be discussed later, was also felt in Ukraine – that it was "abandoned" by the West and left to the mercy of a hostile larger neighbor. The nuclear weapons that Pakistan possesses have become increasingly viewed as not only as being purely responsive to its neighbors, but as an integral part of their defense policy.[8] In the immediate Ukrainian post-independence years, this doctrine was also championed by several nationalist leaders.

Ukraine, and to a lesser degree, Belarus and Kazakhstan, provide the only specific

---

[6] Christopher Hummel, "Ukrainian Arms Makers are Left on Their Own," *Radio Free Europe / Radio Liberty Research Report*, vol 1, no 32 (14 August 1992), 33.

[7] United Nations Institute for Disarmament Research (UNIDIR). "The Implications of South Asia's Nuclear Tests for the Non-Proliferation and Disarmament Regimes." Conference Report from 7-8 September 1998, (Geneva: United Nations, 1998), 4.

[8] Ibid., 7-8.

examples of the complete nuclear disarmament of a nation which held these weapons as vital assets in its strategic stability. Some might argue that South Africa and Sweden/Brazil are other cases of this, but the former never formally declared its nuclear status, and the latter never developed their arsenals. Ukraine, on the other hand, went through such a complete disarmament, that the whole focus of their defense-industrial efforts was also adjusted along with the relinquishment of arms. Thus it would serve to use Ukraine as a denuclearization example, if only as a case of "extreme denuclearization." It would be unlikely that any other nation (even a rogue state/ state of concern/ Axis of Evil member) would build such a massive arsenal and nuclear infrastructure before the program was halted.

In the South African case, it renounced its nuclear program at the end of the 1980s and submitted itself to the IAEA and NPT for two reasons. First, the threat of a Soviet-backed invasion combined with civic and/or racial unrest significantly diminished after the settlement of the Namibia and Angola issues in 1988. Second, it recognized that suspicion of its nuclear due to its refusal to sign the NPT caused distrust in its policies and in the sincerity of its reforms both in Africa and throughout the world.[9] On one hand, however, South Africa's motives for previously choosing the nuclear option are not unlike Ukraine's - namely, seeking assurances of its security from the United States and the West. However, South Africa's nuclear infrastructure was nowhere near as developed as Ukraine's, with the number of weapons and associated infrastructure a mere fraction of that which Ukraine inherited.

Sweden in the 1950s and 1960s weighed the option of creating a nuclear capability in view of its non-aligned status and the Soviet threat nearby. However, it finally voted against their

[9] J.W. de Villiers, Rogers Jardine, Mitchell Reiss, "Why South Africa Gave Up the Bomb", *Foreign Affairs,* vol 73, no 5, November-December 1993, 102-104; and Karamchund Mackerdhuj, "Towards a world free of nuclear weapons: Why South Africa gave up the nuclear option." Department for Disarmament Affairs Occasional Papers No.1, 1999.

adoption in 1968 when the Parliament saw itself as being "existentially" under the nuclear umbrella of the great powers although it was outside their alliance system.[10] Weaponization never occurred in Sweden, and the nuclear option was never integrated into the overall Swedish security doctrine.

Before going into the circumstances of Ukraine's denuclearization, a few words about national context need to be mentioned. By this I mean the position of the government of a nuclear-armed nation and its perception of its nation's role as a nuclear power. Those who would argue against the utility of Ukraine's denuclearization as case study might cite that fact that it took a major change in government structure and leadership (i.e., Ukrainian independence) to allow the question to even arise. In the case of Ukraine, the debate over the relinquishment of arms came about only after the Soviet Union had fallen and Kiev could make decisions on its own. Thus, skeptics would argue, the approach used for Ukraine would only work if a radical change in government occurred in places like Islamabad, New Delhi, or Pyongyang. Of course, the military coup that brought President Musharraf to power in Pakistan has yet to reverse the previous government's nuclear program.

To this point I would contend that although major change in authority centers occurred in Ukraine, changes in government elites did not. In Ukraine, all of the new national leadership had been members of the Soviet *nomenklatura* and thus integral parts of the old system. The first President of Ukraine, Leonid Kravchuk, had been the Communist Party Second Secretary in charge of doctrine. At the time of the signing of accession to the NPT, the Prime Minister (and later President) Leonid Kuchma, had been director of the massive missile plant near Kharkov, a major producer of part of the arsenal on Ukrainian territory. If anything, it could be argued that

---

[10] Stephen Blank, *Proliferation and Nonproliferation in Ukraine: Implications for European and U.S. Security* (Carlisle Barracks, PA: Strategic Studies Institute, 1994), 19.

keeping old elites on power might deter disarmament notions, but that was not the case in Ukraine. The benefit of leadership change for nonproliferation efforts is a renewed ability to argue the merits of relinquishing nuclear arms. New leadership can look at specific circumstances for the "value-added" or overall gain from dismantling a nuclear infrastructure versus retaining them.

Part II. THE SITUATION FOR UKRAINE IN 1991

In this next section I wish to describe some of the political, economic, and military/nuclear conditions which were present for Ukraine at the time of independence and the immediate period afterwards. Such an understanding of the specific factors affecting the Ukrainian government's outlook is important in order to understand why some incentives or disincentives were effective or ineffective. I contend that it was not until the U.S. government fully understood the most important issues to Ukraine – security from Russian hegemony and the costs of disarmament, that the matter of relinquishing Ukraine's nuclear arms could be resolved.

From the very beginning of Ukrainian independence, the status of its nuclear arsenal was subject to changing sentiments. Ukraine's July 1990 Declaration of State Sovereignty, in which it promised to become a non-nuclear state, contained the principles that Ukraine promised "...not to accept, not to produce and not to acquire nuclear weapons." It did not declare, however, that it would immediately relinquish control or destroy those missiles already located on its territory. However, in the following year, the Statement of Verhhovna Rada (Parliament) on 24 October, 1991: "On the Non-Nuclear Status of Ukraine" stated "the full intention to eliminate all nuclear weapons on its territory in the shortest possible time." Such back and forth statements were in part due to internal Ukrainian politics, but mostly in response to Ukraine's perception of its own

security with regards to Russia and the rest of Europe. The following sections describe some of the factors which shaped those perceptions.

Political Environment

The immediate post-independence period for Ukraine was awash in crisis-level readjustment at all political levels. This occurred even in spite of the retention of old Communist Party cadres, most of whom changed only their allegiance from the Communist party to new nationalistic symbols. Interethnic differences, however, were a matter of large concern. Eastern Ukraine was heavily populated by Russians, with over half of the population ethnic Russians and the remainder of Ukrainians speaking Russian as their primary language.[11] This contrasted sharply with the less-industrialized west of Ukraine, where more nationalistic sentiments and stronger anti-Russian attitudes prevailed. Even the CIA had a report on whether Ukraine would stay intact, since the eastern and western parts were so divergent. The Crimea, which had a predominately, Russian-speaking population, displayed strong moves toward succession from Ukraine and reunification with Russia.

Despite the retention of former Communist Party cadres in the new Ukrainian government, Ukraine still held strong anti-Soviet attitudes in 1990-1991, in response to overbearing Russian domination and recollections of the Chernobyl disaster of 1986. This anti-Soviet sentiment was the strongest immediately after independence. As sentiment gained mass popularity, a militant anti-nuclear attitude appeared alongside it.[12] This sentiment accounts for Kiev's initial willingness to forswear nuclear weapons outright. Gradually, political

---

[11] *Vsesoiuznaia perpis' naseleniia 1989 goda* (All-Union Census of 1989), Moscow, 1990.
[12] Victor Batiouk, *Ukraine's Non-Nuclear Option*, United Nations Institute for Disarmament Research

considerations began to mix with the nuclear question in domestic arenas. The leader of the Ukrainian Republican Party, Mr. L. Likyanenko, who was also a presidential candidate, declared in 1991: "Nuclear capability, 20% of [the Soviet total] is located in Ukraine is, after all, a precious asset, the property of a sovereign State. I would not be too much in a hurry to get rid of it. Later on, we shall see what to do with it."[13] Remarks like these showed a tendency on the part of some politicians to see nuclear weapons on Ukraine's territory as valuable political assets, or as leverage in bargaining situations and symbols of security. Furthermore, they represented a way of bolstering the state's status internationally, as well as giving it a voice in international affairs.

Economic Environment

While Ukraine was getting adjusted to independence and faced a myriad of political and economic choices, the country itself was in a grave economic crisis. The newly elected president, Leonid Kravchuk, had no real understanding of economics whatsoever.[14] Ukraine's initial attempts at economic reform met with heavy resistance from within the government, and thus reforms were never able to match the "shock therapy" model that Russia adopted. Subsequently, Ukraine's economy quickly slid into stagflation which heightened tensions throughout the debate period on its nuclear arms.

Part of the crisis stemmed from the deep military-industrial involvement of state industries and their relative inefficiency. In 1992, government expenditure was a significant portion of GDP and defense spending was 3.7% of government expenditures (2.2% of GDP), yet

---

paper No. 14 (New York: United Nations, 1992), 5.

[13] *Izvestiia*, 8 October 1991.

[14] Anders Aslund and Georges de Menil, eds., *Economic Reform in Ukraine: The Unfinished Agenda* (Armonk, NY: M. E. Sharpe, 2000), 3.

the government ran a tremendous cash deficit.[15] Though more will be mentioned about economic considerations and defense expenditures later, the disposition of Ukraine's economy at the outset of independence was almost as dire as the security situation with regards to Russia. A Ukrainian representative to the United Nation stated in 1992, that "the only preoccupation of Ukraine is with its internal economic development".[16]

Initial Military and Nuclear Factors

The military legacy that befell Ukraine made the question of retaining or relinquishing the nuclear arsenal one of the most foremost questions of the time. The main reason lay within the fact that almost 2,000 nuclear warheads and 200 ICBM launchers were sitting on Ukrainian soil, still fully capable of operation. Not only had Ukraine inherited a vast array of these missiles, it was also a major producer of them. From 1955 until 1991, its Dnipropetrovs'k missile plant produced over 8 types of intermediate-range and ICBMs, to include the 10-warhead behemoth SS-24.[17] Added to these was the delicate issue of the tactical nuclear weapons in Ukraine. The estimated number of tactical nuclear weapons in Ukraine at end of the 1980s was over 2300. This includes air-launched, sea-based, and short- and medium- range missiles. However, these numbers may have been somewhat reduced after the 1987 INF Treaty (Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles) and the 1991 Bush-Gorbachev agreement to remove all tactical nuclear weapons from submarine and surface vessels.[18] Russia unilaterally began removing all of the tactical nuclear weapons from Ukraine in the first year after her independence, both for the reason of the aforementioned agreement, and

---

[15] World Bank, *Ukraine, Restoring Growth with Equity: A Participatory Country Economic Memorandum* (Waashington, D.C: The World Bank, 1999), 170-172.

[16] Batiouk, 5.

[17] A. Shevtsov, A. Yizhak, A. Gavrish & A Chumakov, *Tactical Nuclear Weapons: A Perspective from Ukraine* (Geneva: United Nations Institute for Disarmament Research, 2000), 29-30.

the suspicion, later proved correct, that Ukraine would try to claim the weapons as her own. The large ICBMs however, required a large amount of structural overhead to remove the warheads and transport them back to Russia. In this regard, Ukraine could exercise some control.

It was this issue of control that created tense relations with the effective possessor of those missiles, Russia. Moscow still retained the launch capability for the missiles on Ukrainian territory, but Ukraine felt that since they were in her possession, it could somehow use them, or at least threaten to do so. However, such an event was improbable, at least in the short term. The SS-24s were built for a range of 9,700 Km, and were thus very improbable of being retargeted on European Russia.[19] The SS-19s, with a range of about 1000 Km, could have been retargeted on, say, Moscow, but to do so would have meant bypassing the elaborate "Black box" and security measures that were in Moscow's hands.[20] This effectively meant that Ukraine could exercise only "negative control", or the ability to possibly negate a launch command, but not effectively launch the missiles herself. This reality set the stage for debate on whether Ukraine could eventually gain operational control of the missiles and retarget them, or scrap them entirely. Both would be costly options. Unclassified assessments by the Russian military estimated that implementing START in Ukraine would cost them $2.8 billion.[21] Ukrainian estimates were reported to be much higher.

Ukraine's Early Declarations & Decisions - Rationale & Considerations

Part of the novelty of the Ukraine case in 1992 was that the 1968 NPT was written with the intent of keeping states from acquiring or developing nuclear weapons, or transferring them

---

[18] Shevtsov, et al, 7. One estimate has the number of tactical nuclear weapons as high as 3000.

[19] Wiliam H. Kincaide, "Nuclear Weapons in Ukraine: Hollow Threat, Lasting Asset", *Arms Control Today*, Vol 23, no 6, July/August 1993, p. 15.

[20] *The Economist*, 14 August 1993

[21] Jacques Fontanel, Ivan Samson, Alain Spalanzani, "Conversion for the 1990s: 'Peace Cost' vs. 'Peace

to other states. Ukraine, like its fellow newly-independent states, found itself having the weapons already on its soil and thus was able to use the literal language of the Treaty to claim its exemption from the Treaty's requirements to disarm.[22] The key issue was whether Ukraine would be a party to the NPT as a non-nuclear state or not. Whereas Article I of the NPT is for nuclear weapon states not to transfer or assist development of weapons, Article II of the NPT is for non-nuclear states not to receive, transfer, acquire, or manufacture nuclear weapons.[23] As mentioned earlier, it was Ukraine's intention upon independence to secome a signatory to the NPT as a non-nuclear state in late 1991.[24] One UN analyst observed, that Ukraine "can hardly afford defying the overwhelming international opposition to a further spread of nuclear weapons", which would have "disastrous effects for the NPT."[25] However, Ukraine kept its position in regard to the NPT deliberately vague and open to interpretation. According to the point of view of Ukraine's delegation to the United Nations in 1992, the decision of whether or not to be a nuclear power depended on 5 factors:

- Level of reliability of national security
- Geopolitical and geostrategic balance of forces (on a global scale)
- The acceptability of Ukraine to the outer world.
- Future relations among the states of the former USSR
- The fate of the NPT if the Soviet nuclear arsenal were to be divided out.[26]

Though the concerns expressed at the time were lofty and idealistic, the main concern was the viability and survival of the fledgling state of Ukraine itself. According to one analyst of

---

Dividend'," *Defence & Peace Economics*, 1995, vol 6, p. 171.

[22] Shevtsov, et al, 40-41.

[23] Treaty on the Non-Proliferation of Nuclear Weapons (NPT), 1 July 1968. Entered into force 5 March 1970.

[24] Batiouk, 6.

[25] Jozef Goldblat, *The Non-Proliferation Treaty: How to Remove the residual Threats*, Resaerch paper No 13 (Geneva: UNIDIR, 1992), p.5.

Ukrainian security, Kuzio the US was overlooking Ukraine and willing to let it slide back under the hegemony of an increasingly nationalistic Russia.[27] It was this concern that was not fully appreciated in the U.S. and elsewhere. Sensing this, Ukraine then clung to its nuclear arsenal as possibly the sole guarantor of its survival.

The debate about whether Ukraine was able to successfully safeguard or increase its security depends partly on a relative perception of what security is. Looked at in a narrow context, security may simply be "the ability to preserve the nation's physical integrity and territory; to maintain its economic relations with the rest of the world on reasonable terms; to protect its nature, institutions and governance from disruption from outside; and to control its borders."[28] This more military-defense based view of security seems to be to have been the foremost concern for the leadership of newly independent Ukraine. The utilitarian approach to security, which focuses more on the welfare of the population and its interests, was apparently of secondary concern in relation to the status of Ukraine's nuclear arms. The fledgling Ukrainian state was much more concerned with its viability and longevity in relation to Russia than it was with the secondary, but no less dramatic, reform of its own economic system. Indeed, without the first, more narrow-based foundation of security having been established, the social well being of the Ukrainian population was assumed to be impossible.[29] Thus more attention was paid to the nuclear arms issue from the standpoint that they would legitimize the new Ukrainian state more so than any other lever of government action could accomplish.

This postulation perhaps offers some explanation as to why in the midst of an

---

[26] Batiouk, 10.

[27] Taras Kuzio, *Ukraine: Back from the Brink*, European Security Study No. 23. (Institute for European Defence and Strategic Studies, 1995), 34.

[28] Peter Mangold, *National Security and International Relations* (London: Routledge, 1990), 4.

[29] This comes from the position of Ukrainians, especially nationalists, who beloved anything was better than being under Russian domination again. This view was not shared by all, of course, the least of whom were the

increasingly worsening economic crisis, Ukraine was still hedging on its commitment to denuclearize. While Ukraine was balking at receipts of international assistance, its economy was in a tailspin. By 1993, its GNP had fallen by 37% and industrial output fell by 25% from 1990 levels.[30] At the same time, inflation rose from 2500% in 1992 to 9000% in 1993, and the national currency fell against the US dollar from 1,050 units in early 1993 to 65,000 in 1994.[31] The nations pressuring Ukraine to either give up its nuclear arms as well as reduce its conventional forces were not mindful of the United Nations' own Principle II of the Economic Principles for Disarmament, which states "Reductions in military expenditure and disarmament can only become an operational concept if the countries concerned feel that their national security and national economies are not threatened by the process."[32]

This overarching concern about their own security was voiced by Ukrainian politicians in increasingly belligerent, yet myopic rhetoric. The former chairman of the Ukrainian Rada foreign commission, Dmytro Pavlychko, claimed that having nuclear weapons was "like having a gun displayed on your wall. It may have no bullets, but when your neighbor comes to dinner he is afraid of it."[33] On the other side of the argument, President Kravchuk told the Rada that the nuclear weapons, being under operational control, gave Russia a pretext for intervention, thus actually decreased Ukrainian security in relation to its largest potential aggressor.[34]

Initial cost considerations of retaining a nuclear capability were undeniably substantial. Ukrainian estimates of the cost of maintaining and safekeeping the arsenal on its territory, even if

---

Russian-dominated areas of eastern Ukraine and the Crimea. One unemployed Ukrainian worker in 2001 told me, "independence is nice, but I'd rather be under the Russians again and working than have nothing to eat but freedom."

[30] "Strategies for the Development of Ukraine: Contemporary Challenges and Choices," Report, The National Institute for Strategic Studies, Kiev, 1994, p. 21.

[31] UkrPresa, 19 August 1995, cited in Bohdan Lupiy, *Ukraine and European Security* (Frankfurt AM: Peter Lang, 1996), p. 27.

[32] *Economic Aspects of Disarmament: Disarmament as an Investment Process* (Geneva: UNIDIR, 1993).

[33] *Financial Times*, 7 May 1993

[34] Blank, 20.

downsized, would have meant an investment of 10 to 30 billion dollars.[35] Retaining the weapons in a sufficient capacity to serve as a deterrent to Russia required significant investments in facilities for maintaining nuclear weapons, ballistic missiles, and guidance packages for the missiles. According to one analyst, Kiev actually had the ability to replace the warheads with retargeted ones based on the facilities on its territory. However, the technical infrastructure necessary for "strategic stability" would have included early warning systems, communications centers, attack assessment capability, and survival control, most of which only Russian possessed.[36] In addition, the fact that ethnic Russians were dominating the conventional and nuclear ranks of the armed forces heightened the Ukrainians' sense of vulnerability. The officer corps in particular was disproportionately Russian. Defense Minister Morozov in 1993 instituted a program of Ukrainianization. Though it met with considerable resistance from conservatives and led to his eventual removal in October 1993, it attained limited successes. Where the armed forces had been 48% ethnic Ukrainians and 45% ethnic Russians in 1993, by 1995 that number had changed to 59% and 37% respectively.[37] In the Strategic Rocket Forces, just over half of the officers took the Ukrainian loyalty oath.[38]

The conventional disposition of Ukraine's armed forces also had a bearing on their strategic outlook. Part of the problem was that Ukraine knew it had to decrease its conventional armed forces, which at the time of independence included approximately 750,000 members in all branches. Besides these, between 150,000 - 200,000 Ukrainians served elsewhere in the former Soviet Union, now the CIS military. Estimates placed the optimal number of forces at just over

---

[35] Radio Ukraine World Service (16 November 1994).
[36] Taras Kuzio, *Ukrainian Security Policy* (Westport, CT:, Praeger, 1995), 115.
[37] Economist *Intelligence Unit Country Profile 1996-1997* (London: EIU, 1996), 9.
[38] Kuzio, *Ukrainian Security Policy*, 116.

200,000 men.[39] Though in the long term this would be a cost-saving measure, the associated costs, such as creating housing, jobs and skills retraining for a half-million men was a substantial burden in the short term. With such a large conventional force, one might think that Ukraine would be able to construct an adequate conventional deterrence against a possible Russian incursion. However, at the time of independence, the bulk of the units and air bases, ammunitions stores, and depots were located in Southern and Western Ukraine, so situated to support an attack into (or defense against) Western Europe or Turkey. To reorient this huge force to secure the new northern and eastern border with Russia would have been highly costly, as well as provocative.[40] Therefore from an immediate standpoint, the status quo of having a nuclear deterrent might have seemed to some as sufficient to keep the Russians at bay. Overall however, the disproportionate size of Ukraine's nuclear arsenal at the time of independence was a variant that would have skewed optimal force model in its overall balance of forces.[41]

The above circumstances show that Ukrainian interests were mostly concentrated in their security relative to Russia. Though retaining the nuclear weapons was increasingly looking not feasible, relinquishing them outright was also eschewed, both for security and financial reasons. In order to avoid Russia reassuming its hegemony over Ukraine, Kiev needed to get the attention of the outside world, specifically the United States.

Part III. THE UNITED STATES UPS THE ANTE

U.S. Position and Ukrainian Motives

Ukrainian officials believed that the West could not ignore a nuclear-armed Ukraine, and

---

[39] Viktor V. Cherny, "Conversion of the Military-Industrial Complex of Ukraine: Problems and Solutions in *Defense Conversion* ed. Alex E.S. Green (Hampton, VA: A. Deepak, 1995), 85.

[40] Kuzio, *Ukrainian Security Policy,* 91.

[41] For an in-depth analysis of the force structures calculated to maximize value vs. cost, see Arthur Grimes & James Rolfe, "Optimal Defence Structure for a Small Country", *Defence & Peace Economics*, 2002, vol 13 (4),

that the West, to include the United States, would provide financial aid and assistance to modernize Ukraine's economy.[42] Indeed, Ukraine's initial statement as a non-nuclear country and subsequent hedging on its earlier statements appear to be a clear case of a nation "playing the nuclear card" to get concessions from others. In its negotiations with U.S. and international representatives, Ukraine was hoping to use the nuclear weapons as a lever to avoid having to meet IMF requirements. Stephen Blank observes that Ukraine's demand for immunization against economic pressure really translated into a demand for immunity against reform. In his pessimistic analysis of the economic concessions that Ukraine received, he states:

> Without [real economic] reform the [disarmament] treaty's benefits will be squandered. Indeed, Ukraine's prior economic conditions showed an unrealism and desire to escape from the real world of constant economic and political pressures into some never-never land where Ukraine will have no problems and no need to take action since it will be guaranteed by foreign allies and immunized against any outside economic pressure.[43]

Real "value" of the nuclear weapons to Ukraine lay not in their recycled value for use in the Ukrainian economy, or for that matter their market value, but rather as a bargaining chip to gain the world's attention and extract concessions. In the case of Ukraine, there are additional factors which would be uncommon to a modern state - asset-stripping and/or rent-seeking. Being as what Anders Aslund calls "a model of rent seeking", Ukrainian politicians very likely had the short-term profitability of the sale and/or dismantlement of these weapons on their minds. As national leaders discussed the control of the nuclear weapons, parliamentarians were already attempting to figure out how much could be extracted from the west in return for their dismantlement. It is important to note that these fiscal incentives were secondary to security considerations, and thus the Western aid in disarmament was seen as part of a larger security

---

pp. 271-286.

[42] Martel, in Schneider and Dowdy, 91-92.

[43] Blank, 8-9.

guarantee.

The back-and-forth negotiations about Ukraine's nuclear status would finally end in Moscow in January 1994 with the signing of the Trilateral Statement by Presidents Clinton, Yeltsin and Kravchuk. The agreement held Ukraine to the promise of "the elimination of all nuclear weapons, including strategic offensive arms, located in its territory."[44] In exchange for these concessions, the U.S. and Russia agreed to preserve Ukraine's territorial integrity (a primary concern for Ukraine) and ensured that no state would use or threaten to use military force or economic coercion against it. In addition, the U.S. pledged significant financial compensation to Ukraine for disarmament.[45] Ukraine's main concerns were finally met.

Enter Cooperative Threat Reduction (CTR)

In Ukraine's view, one of the main incentives which led to the signing of the Trilateral Statement and perceived security guarantees was a pledge from the U.S. for assistance in disarmament. This was another "carrot" which was needed to convince the Rada to approve any subsequent government agreements. That carrot came in the form of a U.S. Department of Defense (DOD)- executed program called Cooperative Threat Reduction. The CTR Program or the Nunn-Lugar Agreement (named for sponsoring Senators Sam Nunn [D-GA] and Richard Lugar [R-IN]) began in 1991 as a piece of US legislation entitled "The Soviet Nuclear Threat Reduction Act of 1991"[46]. It originally stemmed from Soviet President Mikhail Gorbachev's request for assistance in dismantling Soviet nuclear weapons, and US President George Bush's subsequent proposal to assist in the disposition, dismantlement, and destruction of nuclear

---

[44] Buntin, 25.
[45] Ibid., 26.
[46] Public Law 102-228, 12/12/91, Title II Soviet Weapons Destruction. Cited on NTI web page: http://www.nti.org/db/nisprofs/ukraine/forasst/ctr/ctrgen.htm#E10E1

weapons in the Soviet republics. Ultimately, CTR maintained three primary objectives: (1) destroy nuclear, biological, and chemical weapons; (2) transport and store weapons that are to be destroyed; and (3) prevent weapons proliferation.

One might ask, aside from the economic cooperation that Ukraine was getting with the US and Western Europe, what were the other direct gains from the decision to dismantle their nuclear arsenal? At the micro- level, the direct investment into the conversion of nuclear and WMD-related industries was an effort to convince these industries to reform output to non-WMD activities. The Cooperative Treat Reduction Act of 1993 authorized DOD to establish a program to help demilitarize former Soviet Union defense industries and convert military technologies and capabilities to commercial activities. Although the main objective of the Cooperative Threat Reduction Act focused on WMD reduction, the act did not specifically require the defense conversion program to target WMD capability. However, DOD specifically targeted WMD industries for conversion with the goals of stimulating foreign and domestic investment in Ukraine and other former Soviet nations in order to show that partnerships between former Soviet enterprises and U.S. companies can succeed.[47] The DOD program was carried out under the Defense Special Weapons Agency (DSWA), which implemented the defense conversion programs and contracts under the Assistant Secretary of Defense for CTR.

In addition to CTR and DSWA, fourteen Western countries and the European Union (EU) on 15 November 1994 pledged $234.386 million in disarmament aid to Ukraine. The aid package was announced on the eve of the Ukrainian Rada vote on joining the NPT, but had been in the works since February 1994.[48] The assistance was in addition to the $500 million already

[47] United States General Accounting Office, *Cooperative Threat Reduction: Status of Defense Conversion Efforts in the Former Soviet Union*. GAO/NSIAD-97-101, April 1997, 1.

[48] The 14 countries were: Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Spain, Sweden, the United Kingdom, and United States. Ron Popeski, "West gives Ukraine

granted by the G-7 and the EU for housing construction and Chernobyl programs and was to be used specifically for defense conversion, servicemen relocation and retraining, environmental cleanup, identification of alternative energy sources, nuclear reactor safety upgrades, and general nonproliferation and dismantlement projects.

CTR Success Stories

The second most impressive achievement of the denuclearization of Ukraine under the CTR program, after the disarmament itself, was the fact that it went ahead despite continued fear about Russia. Even as late as 1995, the officials at the highest levels of the Ukrainian government were worried about Russia's designs on her. The foreign minister secretly wrote a memo to President Kuchma as such:

> Russia has no intention to build its relations with the CIS countries in line with international law, nor to respect the principles of territorial integrity, sovereignty, and non-interference in domestic affairs. . . The integration, proclaimed as useful and necessary in Yeltsin's decree. . . in fact means undermining the CIS countries' sovereignty, subordinating their activities to Russia's interests and restoring the centralized superpower.[49]

Yet despite these reservations, Ukraine was able to consolidate its position in Eastern Europe due to its acceptance of the NPT conditions. The CTR program has played an important role in facilitating Ukraine's weapons dismantlement efforts, as well as allowing Ukraine to meet its START obligations.[50] As a result of its final decision to denuclearize, Ukraine's security actually increased, rather that weakened. To a large extent, these new security guarantees were part of concessions which the Ukrainian government had wished for all along.

Financially, there were direct benefits for the Ukrainians due to their nuclear

---

$234 million in new arms aid," REUTERS, 11/15/94; NTI web site, http://www.nti.org/db/nisprofs/ukraine/forasst/intrnatl.htm#E11E15

[49] Jamestown Broadcast Monitor, 6 October, 1995

gamesmanship. In 1995 Ukraine was the largest recipient of U.S. Aid of all the former Soviet republics, receiving $225 million, compared with just $195 allocated to Russia.[51] As of March 1997, DSWA had disbursed $47.7 million for defense conversion projects in Ukraine.[52] One such example occurred with the Ukrainian enterprise, Hartron, which formerly made ballistic missile guidance systems. Both Hartron and a U.S. firm were working together on nuclear power plant instrumentation and control systems. The US provided a $5 million grant to the US firm which put forth $14 million for the joint venture. As of 1994, Hartron had 10,000 employees and had several other ongoing conversion efforts, including a Chinese-Ukrainian venture assembling televisions, an association with a US computer firm to produce components, and a planned project linking banks with satellite communications.[53]

One of the most direct forms of benefits of the decision to denuclearize for the Ukrainian economy has been its ability to restructure its defense expenditures. The CTR assistance allowed Ukraine to shift its defense expenditures away from nuclear maintenance and onto such crucial needs as military pay and training. As overall percentage of GDP allocated to defense dropped from 1994 through 1997,[54] in the late 1990s there was an actual increase in defense and research and development expenditures from 4% of government expenditures in 1999, to an estimated 6% in 2001.[55] Though there are multiple exogenous factors which also play into these changes (conventional downsizing, the Black Sea fleet, etc), the removal of the nuclear maintenance burden from Ukraine's defense budget was undoubtedly a significant factor.

---

[50] United States General Accounting Office, *Weapons of Mass Destruction: Reducing the Threat from the Former Soviet Union: An Update*. GAO/NSIAD-95-165, June 1995, 2-3.

[51] *1996-1997 Economist Intelligence Unit Country Profile*, (London: EIU, 1996), 10

[52] GAO, April 1997, 11. For all former Soviet nations, a full 1/3 of disbursed funds was used on housing projects for military personnel, Ukraine included.

[53] GAO, June 1995, 32.

[54] IMF Country Report No. 01/28, Ukraine: Statistical Appendix, January 2001. Available at: http://www.imf.org/external/pubs/ft/scr/2001/cr0128.pdf

[55] International Centre for Policy Studies. *Quarterly Predictions*. (Kyiv: International Centre for Policy

Problem Areas for Ukraine

That is not to say that for Ukraine the road from 1994 to this point has been free of problems, especially in the economic sphere. By the end of 1999, Ukraine had not recorded a single year of economic growth, and overall had suffered the greatest cumulative decline of all post-communist countries that have not been involved in war.[56] Corruption remains an endemic problem within Ukraine, which has the characteristics of an economy in the midst of state capture by powerful energy interests.[57] Though the fact that the balance of payments remained in surplus in 2002 can be partially attributed to increased exports, it was largely due to weak investment demand within Ukraine. In 2002, the capital account turned negative, due to capital flight in the form of portfolio outflows.[58] The radical restructuring and degradation of the defense-industrial complex can be seen in the microcosm of the PivdenMash ICBM plant. The plant director there, once the world's biggest manufacturer of ICBMs, stated in 1995 that his plant's biggest profits then came from manufacturing children's bicycles. During the Soviet period, this plant employed over 50,000 workers, and since then it has had to drastically reduce its workforce.[59] It is difficult to speculate what Ukraine's economy would look like today if it had not agreed to the Tripartite and CTR Agreements, although it would not be irrational to suppose that the situation would have been far worse.

The assessment that "the decision to retain nuclear arms would probably have eliminated

---

Studies) #13, October 2000.

[56] Aslund and de Menil, 255.

[57] Joel S. Hellmann, Geraint Jones, Daniel Kaufmann, "Seize the State, Seize the Day: State Capture, Corruption, and Influence in Transition," World Bank Policy Research Working Paper No. 2444. Available at www.worldbank.org/wbi/governance. The paper uses empirical data from several post-communist countries to differentiate between administrative corruption, influence, and state capture. Ukraine was included in the study, and scored appropriately high in the area of state capture.

[58] Ukraine – IMF Article IV Consultation Mission.

[59] International Labour Office, Central and East European Team, *The Ukrainian Challenge: reforming labour market and social policy* (Hungary: Central European University Press, 1995), 14.

the chances that the United States and other nations would have provided needed economic assistance to Ukraine. . .Sanctions that would have worsened economic conditions in these countries were also possible in response to a decision to keep nuclear arms"[60] is probably not entirely true. While it is likely that the West would have used economic levers, to include sanctions, as a threat or actual imposition to get Ukraine to give up its nuclear arms, what is also likely is that the West would have plied Ukraine with urgent assistance rather than let it slide into internal chaos with those weapons on its soil. Thus, if another state, say Pakistan or North Korea, seems on the verge of implosion or anarchy, the incentive to bolster its central government would be higher due to the fear of those weapons falling into the hands of radical elements. Granted, Ukraine's decision was taking place years before it could see what happened in Pakistan. Furthermore, Russia, invoking the CIS treaty of regional stability, might understandably feel obliged to intervene in a nuclear-armed Ukraine in order to protect its own security. In such a situation, emergency aid to Ukraine might have come with denuclearization demands or stricter conditions, or worse (from Ukraine's view), conciliatory measures toward Russia.

Part IV. THE APPLICABILITY OF UKRAINE'S EXPERIENCE

Will it Play in Pyongyang?

The central question we should ask is: can we do this elsewhere? Can or should we pay for the removal of other nuclear systems? In the Ukrainian case it was so because the nuclear infrastructure was broad enough that the costs of dismantling it were prohibitive to the nation in question. The fact that the weapons were primarily aimed at the U.S. also lent incentive to offer

[60] James E. Doyle and Peter Engstrom, The Utility of Nuclear Weapons: Tradeoffs and Opportunity Costs", in *Pulling Back from the Nuclear Brink*, Barry R. Schneider and William L. Dowdy, eds, (London & Portland, OR: Frank Cass, 1998), p. 48-49

financial assistance. As a U.S. State Department document asserted:

"CTR assistance to Ukraine . . Was crucial in persuading them to become non-nuclear states through the removal of the nuclear forces stationed on their territory. Nunn-Lugar assistance addressed the concerns of these states that they not be saddled with the costs of removing these forces as well as beginning cooperative efforts to address non-proliferation and defense conversion problems . . .Nunn-Lugar was a key element in persuading these states to join the international system as non-nuclear states . . "[61]

It is important to note, however, that CTR implementation in Ukraine did not match the pattern if implementation in other former Soviet nations.

In Belarus, for example, many complications occurred only *after* that government had accepted the terms of the CTR agreements.[62] Though adversarial tendencies remained among the leadership at the time of the 1992 signing, the overall assessment was that it was in Belarus' best interests to denuclearize. However, subsequent leadership changes (with the election of the quasi-despotic Lukashenka in 1995) soured relations and attitudes toward the program. Nevertheless, the program continued, and in 1997 Russia took the last of the warheads from Belarus' territory. The anti-US attitudes displayed by the Lukashenka government make one wonder whether that government would agree to such an agreement today, especially with conditions like the overall inventory of the armaments, equipment, and property of the armed forces. But Belarus' policy, being very pro-Russian, is not completely self-reliant or defiant of all external opinion (Russia being the main factor) as to warrant their independent desire to hold nuclear weapons. The nationalism and drive for self-determination in Belarus is nowhere near as strong as it is/was in Ukraine, and thus they were much more inclined to go along with the wishes of the CIS leadership.

This paper makes no effort to deny that the circumstances for disarming Ukraine will

---

[61] GAO, June 1995, 62.

[62] See Vyacheslav E. Paznyak, "Nunn-Lugar Assessment: The Case of Belarus", in *Dismantling the Cold War*, John Shields and William Potter, eds. (Cambridge, MA: MIT Press, 1997), 167-192.

work without serious modification in North Korea or elsewhere. Many of the reasons for the Ukrainian success were due to continued discussions with Ukrainian representatives, and it was through these negotiations that a clear a rational policy could be explained. Thus the approach here assumes a rationally thinking national leadership with understandable objectives in mind. A demagogic leader bent on nuclear weapons for personal glory or ideological fervor would be a much more difficult situation. Even in such a case like Saddam's Iraq or Kim's North Korea, there are fundamental incentives to disarmament which can persuade even the staunchest of advocates.

In the Ukraine case, it was their relative (in)security with regards to Russia which garnered the most attention. Though not mentioned previously, Ukraine was heavily dependent upon her larger neighbor for energy supplies, and would have virtually collapsed had Russia shut down her subsidized energy transfers there. Having Russia both necessary and hostile was a conundrum that pushed Ukraine to get Western attention. Northeast Asia offers a small parallel case. North Korea is also heavily dependent upon its neighbor, China for energy supplies, by one estimate 70% of North Korea's consumption.[63] Indeed, it is speculated that only after China interrupted oil flows to North Korea that Pyongyang assented to arms talks with the U.S. and China. Getting the North Korean's attention was a start. Like Ukraine and Russia, North Korea and China are linked neighbors with real security concerns with regards to each other. Like Ukraine, North Korea apparently sees the United States as the sole guarantor of any regional security agreement. Like the U.S. did with Russia, we must cooperate closely (as we have been) with the Chinese in order to determine which incentives and disincentives (carrots and sticks) will be the most effective to North Koran ears. With U.S. skill and patience, North Korea can write a chapter in its history like Ukraine.

Conclusion

The successful disarmament of Ukraine, while being somewhat different than the nuclear proliferation issues that we face elsewhere, provides some useful advice for those other proliferation areas. Firstly, it is imperative for the U.S. and its allies in the non-proliferation effort to be closely attuned to the differences between the stated demands of a nation and its real concerns. The Ukraine case shows that these are not always identical. Whereas Ukraine repeatedly stated it concerns over getting financial concessions for the arms on its soil, its real priorities were its security from Russian hegemony. Stephen Blank states, that ultimately "Ukraine had reached the limit of using the weapons as a bargaining chip and it was time to cash in."[64] He is mostly correct on this point, but that "cashing in" went alongside larger (perceived) security guarantees from the United States and Russia. The Trilateral Agreement of January 1994 was the symbolic realization of that guarantee, even though in reality the Trilateral Agreement did not extend to Ukraine any assurances beyond those already included in the Conference on Security and Cooperation in Europe (CSCE) and the NPT.[65] Nevertheless, it was Ukrainian perceptions of a security guarantee that allowed it to ratify START and the NPT.

Getting to this point is a task of skilled analysts, diplomats and negotiators – ones who can understand a nation's security, economic, and political concerns and not be distracted by rhetoric coming from spokespersons. Though tough rhetoric may be needed in some instances to get negotiations headed in a particular direction, it must not become set in stone. State Department spokesman Richard Boucher's recent statement about North Korea, "We're not

---

[63] *The Economist*, Vol 367, no 8322, (May 3-9 2003), 26.
[64] Blank, 21.

going to pay for the elimination of nuclear weapons programs that never should have been there in the first place"[66] may be more for domestic consumption in the U.S. than in Pyongyang. An enforceable multiparty agreement might provide the context by which the U.S. changes its policy, or at least its rhetoric, and in this regard, adapts a Ukrainian-style approach.

[65] Buntin, 26.
[66] *The Economist*, Vol 367, no 8322, (May 3-9 2003), 24.

APPENDIX A

TIMELINE OF IMPORTANT EVENTS

July 1990	Ukrainian Declaration of State Sovereignty
August 1991	Communist-backed coup in Moscow fails
October 1991	Statement by Ukrainian Rada "On Non-Nuclear Status of Ukraine"
December 1991	Reaffirmation of Declaration on State Sovereignty of Ukraine
December 1991	Soviet Union Dissolved; CIS Formed
May 1992	Completion of the withdrawal of tactical nuclear weapons from Ukraine to the Russian Federation for destruction
May 1992	Lisbon Protocol signed; Ukraine commits to adhere to NPT as non-nuclear weapons state (Article V)
July 1992	CTR Umbrella agreement proposed by U.S; $90 million allocated for Ukrainian disarmament
December 1992	U.S. announces increase in assistance to Ukraine will be $175 million
July 1993	Rada declares that "Ukraine owns the nuclear weapons on its territory"
July 1993	U.S. announces that Ukrainian ratification of START I or accession to NPT are not preconditions for receiving assistance
October 1993	CTR implementing agreements signed
November 1993	Ratification of START I Treaty by Ukrainian Rada, with reservations to Article V of Lisbon Protocol
January 1994	Trilateral Statement by the presidents of Ukraine, the United States, and the Russian Federation
February 1994	Removal of reservations by Rada to Article V of Lisbon Protocol and decision to abide by the NPT
November 1994	Accession by Ukraine to NPT as non-nuclear weapons state

June 1996	Last strategic warheads removed to Russia
March 2002	Last Ukrainian ICBM missile silo destroyed

APPENDIX B

CTR ASSISTANCE DATA FOR UKRAINE

CUMULATIVE CTR FUNDING FOR UKRAINE THROUGH JANUARY 1999

PROJECT	Amount Notified	Amount Obligated
Chain of Custody		
Emergency Response Training/Equipment	$3,400,000	$3,110,000
Multilateral Nuclear Safety Initiative	$11,000,000	$11,000,000
Material Control & Accountability	$22,500,000	$22,216,000
Export Control	$13,890,000	$13,254,000
Demilitarization		
Science & Technology Center	$15,000,000	$15,000,000
Defense & Military Contracts	$7,500,000	$5,192,000
Defense Conversion	$55,730,000	$54,918,000
Destruction and Dismantlement		
Strategic Offensive Arms Elimination	$366,400,000	$327,083,000
Gov't to Gov't Communications Link	$2,222,000	$2,004,000
Nuclear Infrastructure Elimination	$23,400,000	$8,051,000
TOTAL	**$521,042,000**	**$461,828,000**

["CTR Funding," CTR Program web site, 31 January 1999, http://www.ctr.osd.mil/funding/fundukr.htm.]
["Ukraine, Cooperative Threat Reduction Program", NTI web site, 14 May 2003, http://www.nti.org/db/nisprofs/ukraine/forasst/fundukr.htm

CTR FUNDING FOR UKRAINE, FY 2000 AND FY 2001

Program	FY 2000 Funding	FY 2001 Funding
Strategic Offensive Arms Elimination	$41,800,000[1]	$34,100,000[2]

[1] "National Defense Authorization Act for Fiscal Year 2000," Library of Congress Web Site, http://thomas.loc.gov.
[2] "Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001," Library of Congress Web Site, http://thomas.loc.gov.

CTR FUNDING FOR UKRAINE, FY 2002

Program	FY 2002 Funding
Strategic Offensive Arms Elimination	$51,500,000
Infrastructure Elimination	$6,024,000
Total	$57,524,000

["National Defense Authorization Act for Fiscal Year 2002," Library of Congress Web Site, http://thomas.loc.gov.]

SOURCES CONSULTED

Aslund, Anders and Georges de Menil ed. *Economic Reform in Ukraine: The Unfinished Agenda.* Armonk, NY: M. E. Sharpe, 2000.

Bertsch, Gary K. and William C. Potter ed. *Dangerous Weapons, Desperate States: Russia, Belarus, Kazakhstan, and Ukraine.* New York, London: Routledge, 1999.

Blank, Stephen J. *Proliferation and Non-Proliferation in Ukraine: Implications for European and U.S. Security.* Carlisle Barracks, PA: Strategic Studies Institute, 1994.

Bonn International Center for Conversion. *Conversion Survey 1996: Global Disarmament, Demilitarization and Demobilization.* New York: Oxford University Press, 1996.

Buntin, John. *The Decision to Denuclearize: How Ukraine Became a Non-Nuclear Weapons State.* Kennedy School of Government Case Program C14-98-1425.0, Harvard University 1997.

Cornelius, Peter K. and Patrick Lenain ed. *Ukraine: Accelerating the Transition to Market.* Washington, D.C.: International Monetary Fund, 1997.

Economist Intelligence Unit. *Ukraine, Belarus, Moldova Country Profile.* London: The Economist.

Faculty of Business Administration. *Taming the Wild East? A Business study of the Ukraine.* Erasmus University Rotterdam: Eburon,Delft, 1993

Green, Alex E.S., ed. *Defense Conversion: A Critical East-West Experiment.* Hampton, VA: A. Deepak, 1995.

International Centre for Policy Studies. *Quarterly Predictions* 10-13 (January-October 2000). Kyiv: International Centre for Policy Studies.

International Labour Office, Central and East European Team. *The Ukrainian Challenge: reforming labour market and social policy.* Budapest: Central European University Press, 1995.

Kravchuk, Robert S. *Ukrainian Political Economy, The First Ten Years.* New York: Palgrave Macmillan, 2002.

Kuzio, Taras. *Ukraine: Back from the Brink*; European Security Study No. 23. Institute for European Defence and Strategic Studies, 1995.

_____. *Ukrainian Security Policy.* Westport, CT, London: Praeger, 1995.

Lupiy, Bohdan. *Ukraine and European Security: International Mechanisms as Non-Military Security Options for Ukraine*. Frankfurt am Main: Peter Lang, 1996.

Overholt William H. *Incentives for Countries to Go Nuclear*. Croton-on-Hudson, NY: Hudson Institute, 1974.

Schneider, Barry R. and William Dowdy, ed. *Pulling Back from the Nuclear Brink*. London & Portland, OR: Frank Cass, 1998

Shields, John M. and William C. Potter ed. *Dismantling the Cold War: U.S. and NIS Perspectives on the Nunn-Lugar Cooperative Threat Reduction Program*. Cambridge, MA: MIT Press, 1997.

Simpson, John and Darryl Howlett, ed. *The Future of the Non-Proliferation Treaty*. Southampton: St. Martin's Press, 1995

World Bank, IBRD. *Ukraine – Restoring Growth with Equity: A Participatory Country Economic Memorandum*. Washington, D.C.: The World Bank, 1999.

van Zon, Hans. *The Political Economy of Independent Ukraine*. New York: St. Martin's Press, 2000.

Zaborsky, Victor. *Nuclear Disarmament and Nonproliferation: the Evolution of the Ukrainian Case*. CSIA Discussion Paper 94-05, Kennedy School of Government, Harvard University, June 1994.

U.S. Government and United Nations Documents

Batiouk Victor. "Ukraine's Non-Nuclear Option." Research Paper No. 14. New York: UNIDIR, 1992.

Goldblat, Jozef. "The Non-Proliferation Treaty: How to Remove the Residual Threats." Research Paper No 13. New York: UNIDIR, 1992.

Hartley, Keith. "Economic Aspects of Disarmament: Disarmament as an Investment Process." New York: UNIDIR, 1993.

Mackerdhuj, Karamchund, "Towards a world free of nuclear weapons: Why South Africa gave up the nuclear option." Department for Disarmament Affairs Occasional Papers No.1, 1999.

Shevtsov A., Yitzhak A., Gavrish A. and Chumakov A., "Tactical Nuclear Weapons: A Perspective From Ukraine." Geneva: UNIDIR, 2000.

United Nations Institute for Disarmament Research. *UNIDIR and its Activities*. 1996.

_____. *Report 1997-1998: A Report on the Activities and Finances of the United Nations Institute for Disarmament Research.*

_____. "The Implications of South Asia's Nuclear Tests for the Non-Proliferation and Disarmament Regimes." Conference Report from 7-8 September 1998, Geneva.

United States General Accounting Office. *Weapons of Mass Destruction: Reducing the Threat from the Former Soviet Union: An Update.* Washington, D.C.: GAO, June 1995.

_____. *Former Soviet Union: An Update on Coordination of U.S. Assistance and Economic Cooperation Programs.* Washington, D.C.: GAO, December 15, 1995.

_____. *Cooperative Threat Reduction.* Washington, D.C.: GAO, April 1997

_____. *Cooperative Threat Reduction: DOD's 1997-98 Reports on Accounting for Assistance Were Late and Incomplete.* Washington, D.C.: GAO, March 15, 2000.